City of Northlake

Stormwater Management Program Plan

Prepared for:

City of Northlake

55 East North Ave

Northlake, IL 60164

I. Executive Summary

The City of Northlake (City) is an operator of a Municipal Separate Storm Sewer System (MS4) as defined by the Illinois Environmental Protection Agency (IEPA) National Pollution Discharge Elimination System (NPDES) Phase II program. The City has applied for and obtained coverage under the IEPA's General NPDES Permit for Discharges from Small Municipal Separate Storm Sewer Systems. The City is required by the IEPA to prepare a Stormwater Management Program Plan (SMPP) in accordance with 40 CFR Part 122.32 of the NPDES regulations. This SMPP outlines the City's plan to develop, implement, and enforce a Stormwater Management Program Plan designed to reduce the discharge of pollutants, to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act in accordance with the NPDES Phase II program. The SMPP addresses the Six Minimum Control Measures as required by state regulations. The SMPP discusses the jurisdiction of the City, the reports that the City must file, and also identifies the City's legal authority and financial capability to enforce NPDES General Permit ILR40. Their permit number is ILR400406 and a copy of the general permit is provided in Appendix 8.

II. Legal Authority

The City Municipal Code grants the Public Works Department and City Engineer the legal authority to control the quality of separate storm water discharge from its storm sewer systems. Their authority addresses discharge from the Municipal Separate Storm Sewer System (MS4). The City has both the fiscal authority and legal resources to fully implement its SMPP.

III. Development of the SMPP

The City retained the services of Christopher B. Burke Engineering, Ltd. (CBBEL) to provide assistance in the preparation of an NPDES Phase II Stormwater Permit. Representatives from the City met with CBBEL to discuss the NPDES Phase II Permit program and its requirements. CBBEL reviewed the City's available sources to determine the steps necessary for compliance with the NPDES Phase II requirements, and provided recommendations for programs that need to be initiated by the City. The Six Minimum Control Measures and associated Best Management Practices (BMPs) were discussed, and milestones were setup to provide the City with a timeline for developing these programs.

The City also met with various local groups to discuss the implementation of water quality and stream enhancement activities. The City identified the receiving waterways to be included in the NPDES General Permit and identified BMPs and programs that will best improve the water quality of the receiving waterways. CBBEL recommended that the City Council adopt Code revisions for compliance with the Phase II requirements.

The requirements of the SMPP were discussed and CBBEL supplied recommendations for its implementation. The SMPP was prepared as a direct result of these discussions.

IV. Permit Coverage Area

The SMPP is effective within the corporate limits of the City of Northlake. The waterways included in the SMPP are Addison Creek, Addison Creek South Tributary and Golfview Ditch.

V. Rationale for Program BMP Selection

The BMPs included in the SMPP have been developed to specifically address the Six Minimum Control Measures of the NPDES Phase II Permit program and to provide improved water quality for the receiving waterways within the permit coverage area. Through the development of the SMPP, the City intends to research and implement City programs, BMPs, and Code revisions. The City also intends to coordinate with local groups and residence to promote water quality and stream enhancement programs. The SMPP will provide for implementation of the programs required for conformance with the NPDES Phase II requirements.

VI. Reporting Requirements

The City will file an annual report with the IEPA that explains the progress made toward achieving the goals outlined in the SMPP. The report will include a status of compliance with the permit conditions, an assessment of the progress towards achieving the goals established in the original permit, and an analysis of the effectiveness of the BMPs developed in the SMPP. The City will also include a summary of the programs that have been implemented, a summary of changes or additions to the original permit, and all relevant data documented during the year.

VII. Stormwater Management Program

This SMPP outlines the Six Minimum Control Measures, which are expected to reduce pollutants discharged within the City. The Six Minimum Control Measures will improve the water quality of the waterways included in the Permit Coverage Area.

The SMPP also explains the actions the City will propose to address each requirement of the Six Minimum Control Measures. The intent of the SMPP is to reduce pollutant levels to the "maximum extent practicable" under current state law, to protect water quality, and to comply with the City Municipal Code and Federal Clean Water Act. The SMPP includes management practices, control techniques, system design, and engineering methods. Each Minimum Control Measure includes a description of the BMPs, measurable goals, the person or departments responsible, the rationale and the documentation process.

This plan outlines the following Six Minimum Control Measures, which are expected to reduce pollutants discharged by the City.

1. Public Education and Outreach

The City is committing to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City commits to implementation of BMPs related to A.1, A.3, and A.6 as described below.

A.1 Distributed Paper Material

The City will make available informational brochures to the public to increase awareness of impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in

stormwater runoff. Informational material and brochures will be made available at the Public Works Department and City Hall.

A.3 Public Service Announcement

The City will include a stormwater and/or water quality related article once a year in the City's newsletter.

A.6 Other Public Education

The City will post and monitor website link(s) on the City website and update them as new information becomes available. These links provide information to the public to increase awareness of impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. The City will also post their NOI on the City website.

2. Public Participation/Involvement

The City will perform activities and services related to the Public Participation/Involvement minimum control measure. BMPs will be implemented under BMP numbers B.2, B.5, B.6 and B.7 as described below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination

The Addison Creek River Conservancy District (ACRCD) will provide organization, supplies and/or training to local schools, businesses or civic groups for water quality and stream enhancement activities. The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.

B.7 Other Public Involvement

The City has posted contact information on the City website to allow residents to report illicit discharges to the storm sewer system and maintenance problems associated with ponds, streams, or outfalls. The City will work to provide a Citizens Report form or direct link to the Public Works Department to track reports by location and problem and address them in a timely manner.

3. Illicit Discharge Detection and Elimination

The City commits to performing some activities related to the Illicit Discharge Detection and Elimination minimum control. BMPs will be implemented under BMP numbers C.1, C.2, C.3, C.4, C.5, C.6 and C.10 as described below.

C.1 Storm Sewer Map Preparation

The City will continue to update the storm sewer map as appropriate, to reflect any new and re-development.

C.2 Regulatory Control Program

The City and Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) will continue to enforce the MWRD Sewage and Waste Control Ordinance that prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the City and MWRD.

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures, and C.5 Illicit Source Removal Procedures

The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City developed procedures for tracking reports of illicit discharges and enforcement guidelines to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

C.6 Program Evaluation and Assessment

The City performs a yearly program evaluation of its NPDES program for compliance monitoring to determine the effectiveness of the overall program and the BMPs selected.

C.10 Other Illicit Discharge Controls

The City performs annual monitoring of the receiving streams upstream and downstream of the MS4 discharges.

4. Construction Site Runoff Control

The City will perform activities and services related to the Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers D.1, D.2, D.4, and D.6 as described below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures, D.6 Site Inspection/Enforcement Procedures

The City has a regulatory control program that requires sediment and erosion control measures for all developments over 1 acre within the City. The City requires that these measures be submitted to the City during the Site Plan Review Procedures and provides resources on sediment and erosion control BMPs. The City also performs inspections on development sites during construction to verify compliance with the development plans and local codes and procedures. In addition, the City will continue to update the Code and Public Works procedures to meet the NPDES requirements.

5. Post-Construction Runoff Control

The City will perform activities and services related to the Post-Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP number E.2, E.4, E.5, and E.6 as described below.

E.2 Regulatory Control Program, E.4 Pre-Construction Review of BMP Designs, E.5 Site Inspections During Construction, E.6 Post Construction Inspections

The City Engineer's regulatory control program for post construction runoff control includes site development plan review procedures to specifically evaluate structural and nonstructural stormwater BMPs and inspection of the site during and after construction to verify compliance with the approved plans and NPDES requirements. The City enforces these regulations in accordance with the MWRDGC

Watershed Management Ordinance (WMO) in addition to guidelines for enforcement procedures to make sure developments comply with local codes and ordinances.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City will perform BMPs under BMP numbers F.1, F.2 and F.3 as described below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control

The City will continue with annual in-house presentations and hand out literature that provide guidance and procedures for employees to reduce or eliminate the discharge of pollutants from City owned facilities to the storm sewer system. The City has procedures in place regarding the storage of spoil piles, sediment removal, and salt storage in a covered facility. The goal of this BMP will be to educate City employees of current practices that contribute to stormwater pollution and/or to develop new procedures and make revisions to existing procedures that will curtail the discharge of pollutants to storm sewer systems by City employees.

F.2 Inspection and Maintenance Program

The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

VIII. Financial Capability

The Municipal Code gives the City the authority to require application fees for development projects within the City limits. The City also has the authority to issue fines for developments that aren't in compliance with the NPDES Phase II regulations. These generate revenue to finance the Phase II program costs.

IX. Summary

Since the inception of the NPDES Phase II program, the City of Northlake has solicited input from their consultant, staff, and other interested local groups in the development of this Stormwater Management Plan and in administrating and providing sufficient funding of the permit requirements and this SMPP. The SMPP addresses each of the Six Minimum Control Measures and provides a framework of BMPs to improve the quality of runoff to the area's rivers and streams. The BMPs have been developed to specifically address the waterways in the Permit Coverage Area.

This SMPP details all of the Best Management Practices (BMPs), activities, policies, and procedures the City of Northlake employs to protect water quality by reducing or preventing the introduction of

contaminates into the municipal separate storm sewer system and to meet the requirements of their MS4 permit. The SMPP is a living document that will be updated regularly based on changes within the City and the NPDES regulations. If fully utilized, the SMPP provides the City with a vital tool to meet the following goals of this program:

- Improve water quality,
- Provide cleaner and more aesthetically pleasing local waterbodies and streams,
- Enhance recreation opportunities
- Healthier environment for residents and wildlife.

The SMPP will be reviewed annually during the City's Annual Facility Inspection as required by the NPDES Phase II Permit and will be kept onsite at the City Hall at 55 East North Avenue, Northlake, Cook County, IL 60164.

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25. Compliance Documentation – Construction Site Runoff Control

26. Compliance Documentation – Post-Construction Runoff Control

APPENDIX 1

City of Northlake Corporate Limits Exhibit

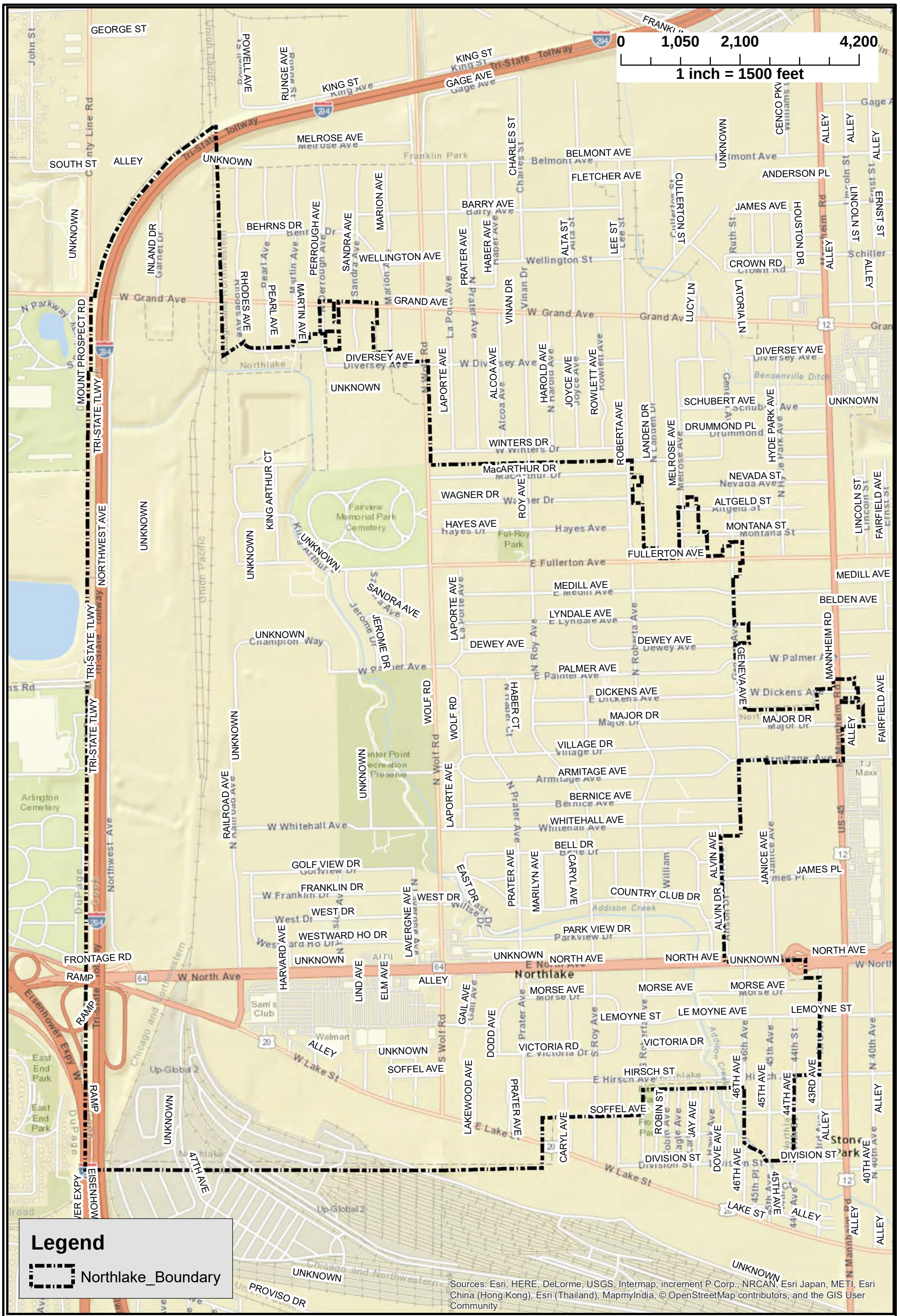
DSGN.	BMK	CHKD.	

Christopher B. Burke Engineering, Ltd.
9575 West Higgins Road, Suite 600
Rosemont, IL 60018
(847) 823-0500 / FAX (847) 823-0520

CLIENT	PROJECT NO.	
CITY OF NORTHLAKE	R940032.HR214	
TITLE		DATE 9/30/16
CITY OF NORTHLAKE CORPORATE LIMITS		EXHIBIT

APPENDIX 2

City of Northlake Street Map



DSGN.	MJB	CHKD.	

Christopher B. Burke Engineering, Ltd.
9575 West Higgins Road, Suite 600
Rosemont, IL 60018
(847) 823-0500 / FAX (847) 823-0520

CLIENT: CITY OF NORTHLAKE

PROJECT NO.: R940032.HR214

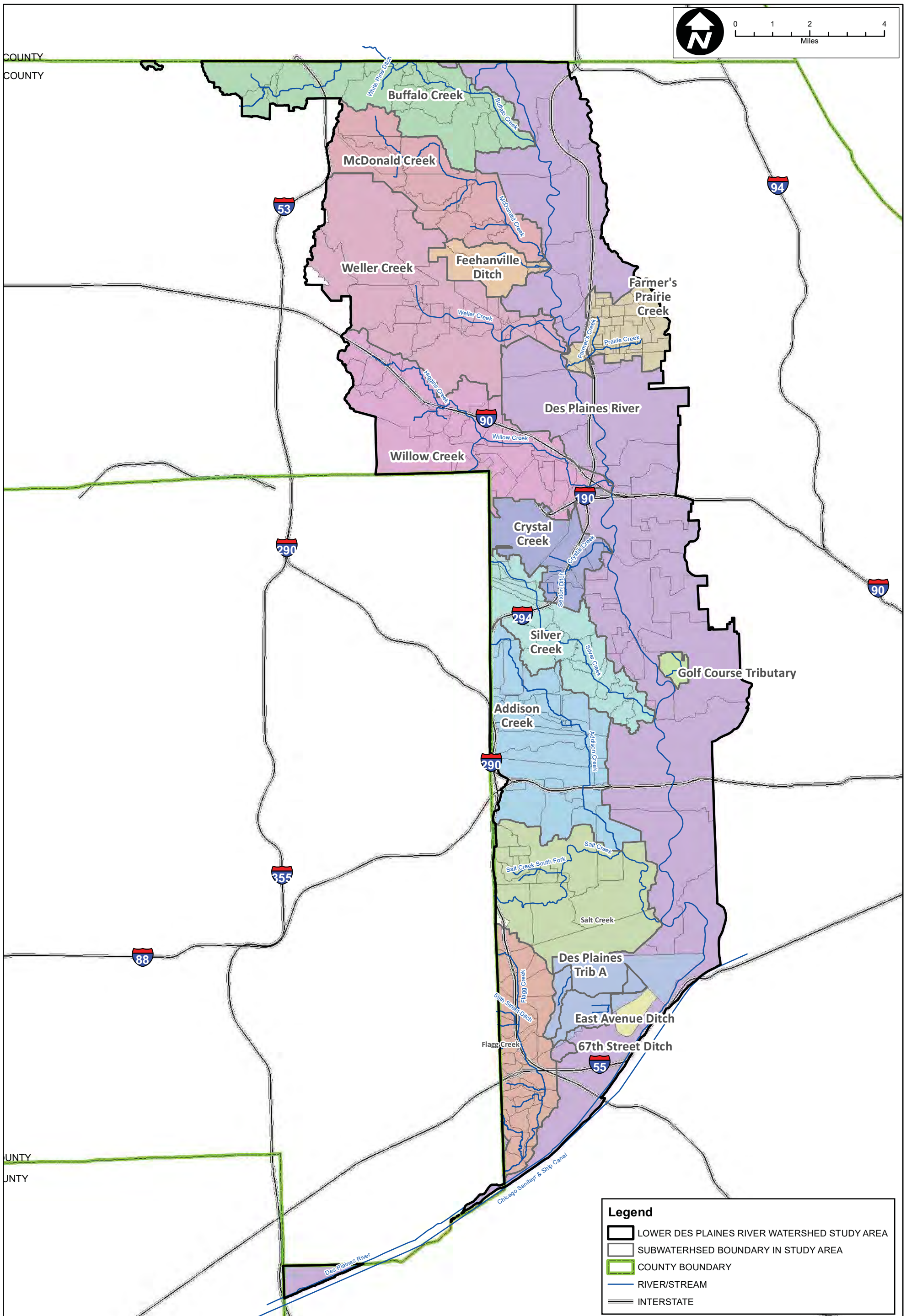
TITLE: CITY OF NORTHLAKE STREET MAP

DATE: 7/25/16

EXHIBIT 1

APPENDIX 3

Addison Creek Watershed Exhibit



CLIENT:

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TITLE:

LOWER DES PLAINES RIVER WATERSHED SUBWATERSHED DELINEATION

PROJ. NO.	080043
DATE:	09-13-2009
SHEET	1 OF 1
DRAWING NO.	**FIGURE 2.3.2**

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	
DWN.			GIS USER	MHAYES
CHKD.			PLOT DATE	
FILE:				

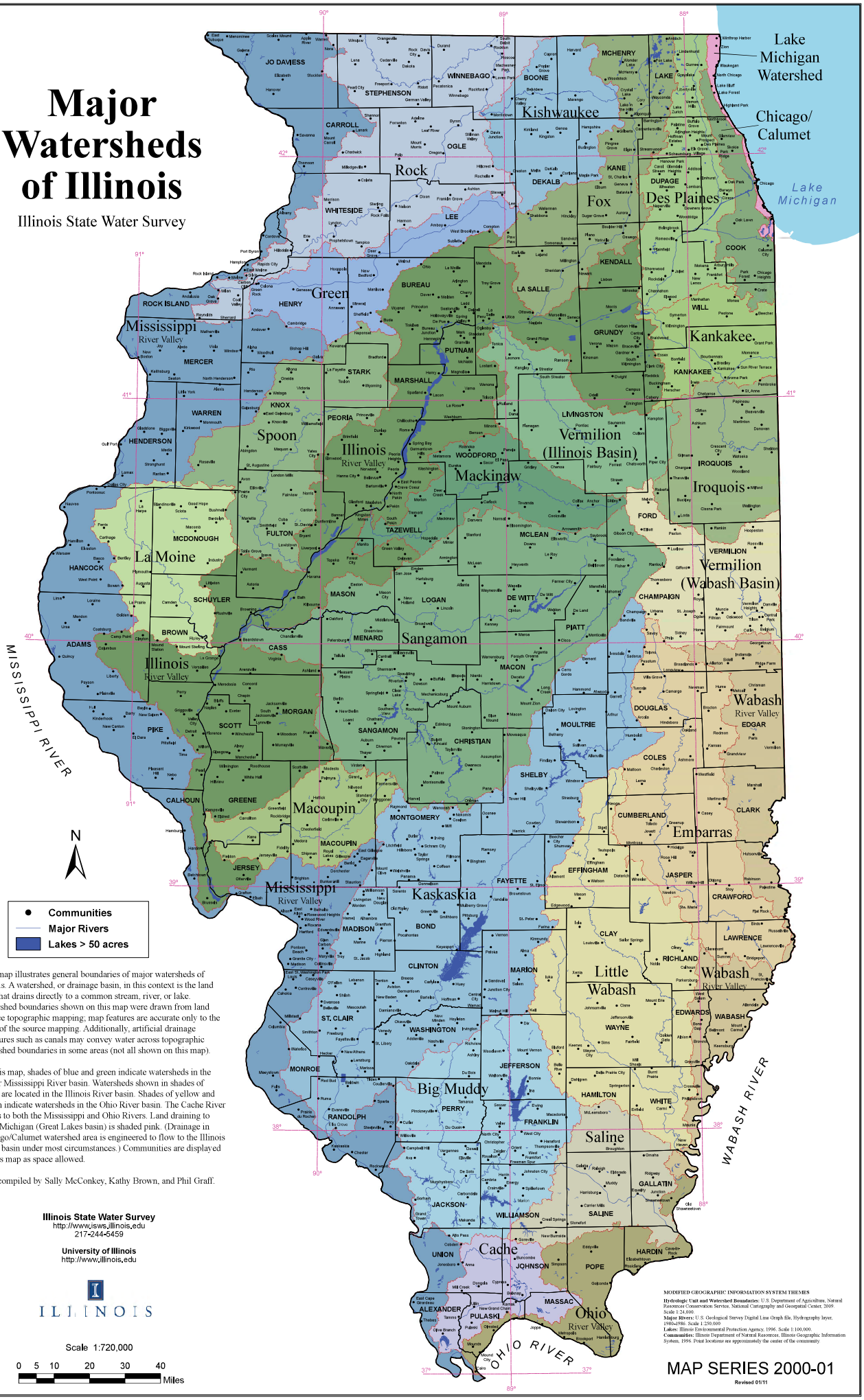
Map Document: (Z:\MWRDGC\08-0043 Phase B\Water\Des Plaines\exhibits\Subwatershed Delineation.mxd)
11/22/2010 -- 2:46:31 PM

APPENDIX 4

Major Watershed of Illinois Map

Major Watersheds of Illinois

Illinois State Water Survey



This map illustrates general boundaries of major watersheds of Illinois. A watershed, or drainage basin, in this context is the land area that drains directly to a common stream, river, or lake. Watershed boundaries shown on this map were drawn from land surface topographic mapping; map features are accurate only to the scale of the source mapping. Additionally, artificial drainage structures such as canals may convey water across topographic watershed boundaries in some areas (not all shown on this map).

On this map, shades of blue and green indicate watersheds in the Upper Mississippi River basin. Watersheds shown in shades of green are located in the Illinois River basin. Shades of yellow and brown indicate watersheds in the Ohio River basin. The Cache River drains to both the Mississippi and Ohio Rivers. Land draining to Lake Michigan (Great Lakes basin) is shaded pink. (Drainage in Chicago/Calumet watershed area is engineered to flow to the Illinois River basin under most circumstances.) Communities are displayed on this map as space allowed.

Map compiled by Sally McConkey, Kathy Brown, and Phil Graff.

Illinois State Water Survey
http://www.isws.illinois.edu
217-244-5459

University of Illinois
http://www.illinois.edu

ILLINOIS

Scale 1:720,000

0 5 10 20 30 40 Miles

MODIFIED GEOGRAPHIC INFORMATION SYSTEM THEMES

Hydrologic Unit and Watershed Boundaries: U.S. Department of Agriculture, Natural Resources Conservation Service, National Cartography and Geospatial Center, 2009. Scale 1:24,000.
Major Rivers: U.S. Geological Survey Digital Line Graph file, Hydrography layer, 1980–1986. Scale 1:250,000
Lakes: Illinois Environmental Protection Agency, 1996. Scale 1:100,000.
Communities: Illinois Department of Natural Resources, Illinois Geographic Information System, 1996. Point locations are approximately the center of the community.

MAP SERIES 2000-01

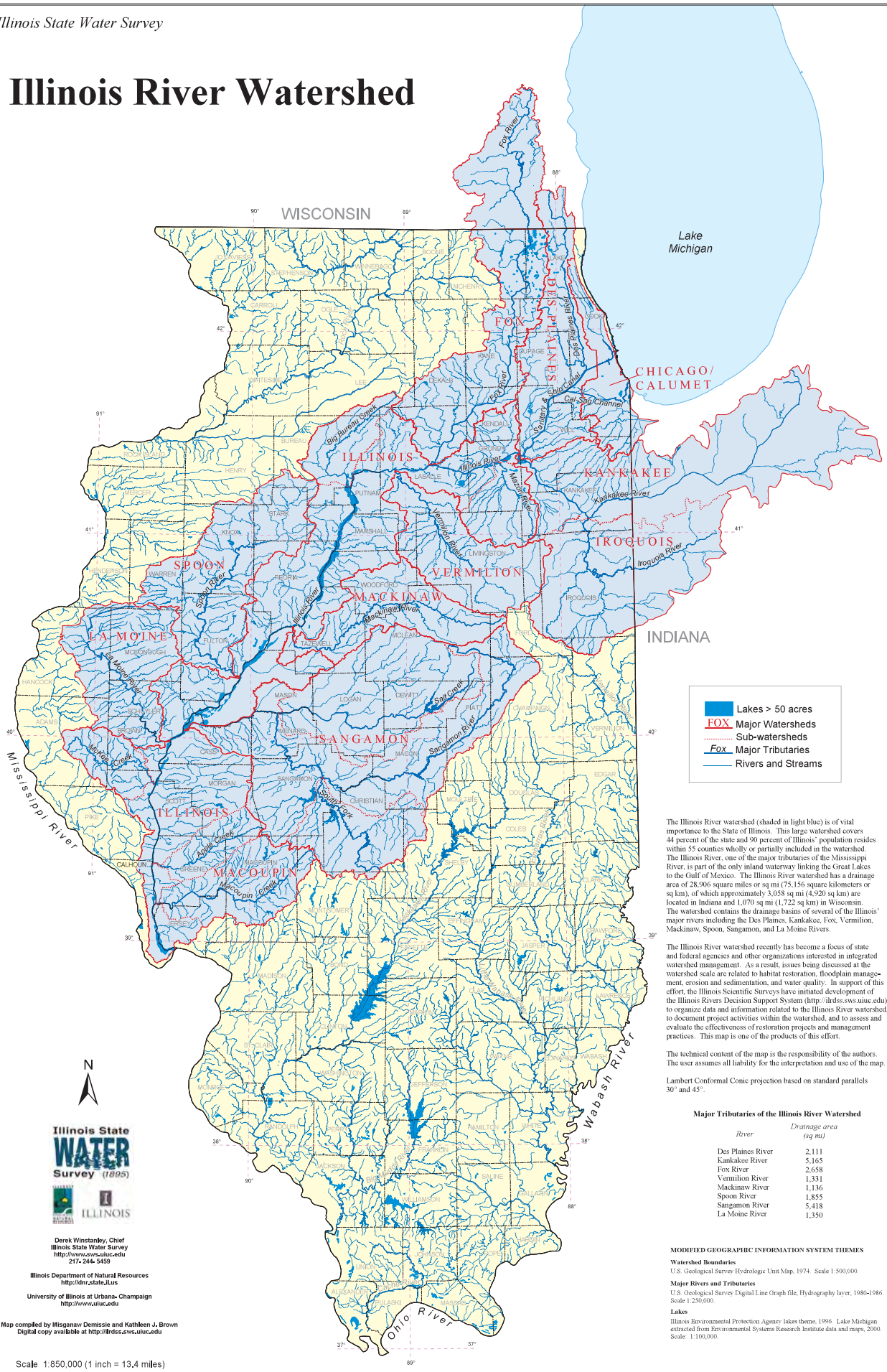
Revised 01/11

APPENDIX 5

Illinois River Watershed Map

Illinois State Water Survey

Illinois River Watershed



The Illinois River watershed (shaded in light blue) is of vital importance to the State of Illinois. This large watershed covers 44 percent of the state and 90 percent of Illinois' population resides within 55 counties wholly or partially included in the watershed. The Illinois River, one of the major tributaries of the Mississippi River, is part of the only inland waterway linking the Great Lakes to the Gulf of Mexico. The Illinois River watershed has a drainage area of 28,906 square miles or sq mi (75,156 square kilometers or sq km), of which approximately 3,058 sq mi (4,920 sq km) are located in Indiana and 1,070 sq mi (1,722 sq km) in Wisconsin. The watershed contains the drainage basins of several of the Illinois' major rivers including the Des Plaines, Kankakee, Fox, Vermilion, Mackinaw, Spoon, Sangamon, and La Moine Rivers.

The Illinois River watershed recently has become a focus of state and federal agencies and other organizations interested in integrated watershed management. As a result, issues being discussed at the watershed scale are related to habitat restoration, floodplain management, erosion and sedimentation, and water quality. In support of this effort, the Illinois Scientific Surveys have initiated development of the Illinois Rivers Decision Support System (http://ilrdss.sws.uiuc.edu) to organize data and information related to the Illinois River watershed, to document project activities within the watershed, and to assess and evaluate the effectiveness of restoration projects and management practices. This map is one of the products of this effort.

The technical content of the map is the responsibility of the authors. The user assumes all liability for the interpretation and use of the map.

Lambert Conformal Conic projection based on standard parallels 30° and 45°.

Major Tributaries of the Illinois River Watershed

River	*Drainage area (sq mi)*
Des Plaines River	2,111
Kankakee River	5,165
Fox River	2,658
Vermilion River	1,331
Mackinaw River	1,136
Spoon River	1,855
Sangamon River	5,418
La Moine River	1,350

MODIFIED GEOGRAPHIC INFORMATION SYSTEM THEMES

Watershed Boundaries

U.S. Geological Survey Hydrologic Unit Map, 1974. Scale 1:500,000.

Major Rivers and Tributaries

U.S. Geological Survey Digital Line Graph file, Hydrography layer, 1980-1986. Scale 1:250,000.

Lakes

Illinois Environmental Protection Agency lakes theme, 1996. Lake Michigan extracted from Environmental Systems Research Institute data and maps, 2000. Scale: 1:100,000.

N

Illinois State WATER Survey (1895)

ILLINOIS

Derek Winstanley, Chief
Illinois State Water Survey
http://www.sws.uiuc.edu
217- 244- 5459

Illinois Department of Natural Resources
http://dnr.state.il.us

University of Illinois at Urbana- Champaign
http://www.uiuc.edu

Map compiled by Misganaw Demissie and Kathleen J. Brown
Digital copy available at http://ilrdss.sws.uiuc.edu

Scale 1:850,000 (1 inch = 13.4 miles)

0 5 10 20 30 40 50 Miles

MAP SERIES 2003-01

Printed by the authority of the State of Illinois (02-03-24491-4M)

APPENDIX 6

City of Northlake 2016 Notice of Intent

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Notice of Intent for New or Renewal of General Permit for Discharges from Small Municipal Separate Storm Sewer Systems - MS4's

Part I. General Information

1. MS 4 Operator Name: City of Northlake
2. MS4 Mailing Address: 55 E. North Ave

   City: Northlake State: IL
3. Operator Type: City Other:
4. Operator Status: Local Other:
5. Name(s) of governmental entity(ies) in which MS4 is located:

   Cook County
6. Area of land that drains to your MS4 in square miles: 4.4
7. Latitude and Longitude at approximate geographical center of MS4 for which you are requesting authorization to discharge:

   Latitude: 87 Degrees 53 Minutes: 44 Seconds:

   Longitude: 41 Degrees: 55 Minutes: 02 Seconds:
8. Name(s) of known receiving waters

   Addison Creek

   Addison Creek South Tributary

   Golfview Ditch

9. Persons responsible for implementation or coordination of Stormwater Management Program:

Name: Jeffrey Sherwin Title: Mayor Phone: 708-343-8700

Area of Responsibility: Overall Implementation

Name: Christopher B. Burke Eng Ltd Title: City Engineer Phone: 847-823-0500

Area of Responsibility:

Part II. Best Management Practices (include shared responsibilities) which have been implemented or are proposed to be implemented in the MS4 area:

A. Public Education and Outreach

Qualifying Local Programs:

The City performs a variety of activities that meet the requirements of the Public Education and Outreach minimum control measure. These activities include BMP's: A.1, A.3 and A.6.

Measurable Goals (include shared responsibilities)

☒ A.1 Distributed Paper Material

Brief Description of BMP:

The City will continue to produce and make available brochures on topics related to stormwater quality. These topics may include steps the public can take to reduce pollutants to stormwater runoff or the impacts of stormwater runoff on local water bodies.

Measurable Goals, including frequencies:

The brochures will be developed to target developers, commercial and industrial facility operators and residents. The goal of this program is to increase the awareness of impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

Milestones:

Go to Additional Pages

Year 1:

The Public Works Department will continue to produce and make the informational material and brochures.

Year 2:

The Public Works Department will continue to produce and make the informational material and brochures.

Year 3:

The Public Works Department will continue to produce and make the informational material and brochures.

Year 4:

The Public Works Department will continue to produce and make the informational material and brochures.

Year 5:

The Public Works Department will continue to produce and make the informational material and brochures.

☐ A.2 Speaking Engagement

☒ A.3 Public Service Announcement

Brief Description of BMP:

The City will include a storm water and/or ambient water quality related article once a year in the City's newsletter.

Measurable Goals, including frequencies:

The City newsletter article will be developed to target developers, commercial and industrial facility operators and interested citizens. The goal of this program is to increase the awareness of impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

Milestones:

Year 1:

The City will include a storm water and/or ambient water quality related article in the City newsletter each year.

Year 2:

The City will include a storm water and/or ambient water quality related article in the City newsletter each year.

Year 3:

The City will include a storm water and/or ambient water quality related article in the City newsletter each year.

Year 4:

The City will include a storm water and/or ambient water quality related article in the City newsletter each year.

Year 5:

The City will include a storm water and/or ambient water quality related article in the City newsletter each year.

Go to Additional Pages

☐ A.4 Community Event

☐ A.5 Classroom Education Material

☒ A.6 Other Public Education (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has website links that includes information on household hazardous waste disposal, recycling and various stormwater/ water quality information. The contact information also allows residents to report stormwater and/or water quality information to the City.

The City will create a website link on the City's website to include information on the potential effects on storm water discharge due to climate change.

Measurable Goals, including frequencies:

The City will continue to target developers, commercial and industrial facility operators and residents. The goal of this program is to increase the awareness of impacts of stormwater discharges on water bodies, the potential effects of climate change on storm water discharges and the steps that the public can take to reduce pollutants in storm water runoff.

Milestones:

Year 1:

The City will continue to provide the website links and update as needed.

Year 2:

The City will continue to provide the website links and update as needed.

Year 3:

The City will continue to provide the website links and update as needed.

Year 4:

The City will continue to provide the website links and update as needed.

Year 5:

The City will continue to provide the website links and update as needed.

Go to Additional Pages

B.Public Participation/Involvement

Measurable Goals (include shared responsibilities)

Qualifying Local Programs:

The City performs a variety of activities that meet the requirements of the Public Participation and Involvement minimum control measure. These activities include BMP's: B.2, B.3, B.6 and B.7.

☒ B.2 Educational Volunteer (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City coordinates with local groups to perform clean up activities. These activities directly reduce the amount of pollutants entering the City's storm sewer system.

Measurable Goals, including frequencies:

The goal of this activity is to encourage active public participation in ambient water quality programs and increase the visibility of water quality issues.

Milestones:

Year 1:

The City will continue with the clean up activities and work to increase participation.

Year 2:

The City will continue with the clean up activities and work to increase participation.

Year 3:

The City will continue with the clean up activities and work to increase participation.

Year 4:

The City will continue with the clean up activities and work to increase participation.

Year 5:

The City will continue with the clean up activities and work to increase participation.

Go to Additional Pages

☒ B.3 Stakeholder Meeting (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City participates and coordinates with the Chicago Area Waterways Chloride Initiative work group led by the Metropolitan Water Reclamation District of Greater Chicago.

Measurable Goals, including frequencies:

The goal of this Initiative is to identify best management practices that are most appropriate and cost effective for the region to be used by municipalities.

Milestones:

Year 1:

The City will continue to participate.

Year 2:

The City will continue to participate.

Year 3:

The City will continue to participate.

Year 4:

The City will continue to participate.

Year 5:

The City will continue to participate.

Go to Additional Pages

☒ B.4 Public Hearing (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City will hold a public meeting to discuss topics including steps the public can take to reduce pollutants to stormwater runoff or the impacts of stormwater runoff on local water bodies.

Measurable Goals, including frequencies:

The goal is to increase public education and involvement regarding the Village's stormwater management and NDPES program and their knowledge on ways they can help.

Milestones:

Year 1:

The City will hold a public meeting at least once a year.

Year 2:

The City will hold a public meeting at least once a year.

Year 3:

The City will hold a public meeting at least once a year.

Year 4:

The City will hold a public meeting at least once a year.

Year 5:

The City will hold a public meeting at least once a year.

Go to Additional Pages

☐ B.5 Volunteer Monitoring

☒ B.6. Program Involvement (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City coordinates with local groups to perform clean up activities. These activities directly reduce the amount of pollutants entering the City's storm sewer system.

Measurable Goals, including frequencies:

This activity has the goal of encouraging active public participation in ambient water quality programs and increasing the visibility of water quality issues.

Milestones:

Year 1:

The City will continue with the clean up activities and work to increase participation.

Year 2:

The City will continue with the clean up activities and work to increase participation.

Year 3:

The City will continue with the clean up activities and work to increase participation.

Year 4:

The City will continue with the clean up activities and work to increase participation.

Year 5:

The City will continue with the clean up activities and work to increase participation.

Go to Additional Pages

☒ B.7 Other Public Involvement (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The Public Works Department provides contact information on the City website to allow residents to report stormwater or water quality related issues.

Measurable Goals, including frequencies:

The goal of this program is to provide active citizen participation in detection of illicit discharges to the storm sewer system and problems with drainage features. This program will also aid the Public Works Department in the detection of illicit discharges

Milestones:

Year 1:

The City will continue to provide the appropriate contact information to report illicit discharges or other stormwater issues.

Year 2:

The City will continue to provide the appropriate contact information to report illicit discharges or other stormwater issues.

Year 3:

The City will continue to provide the appropriate contact information to report illicit discharges or other stormwater issues.

Year 4:

The City will continue to provide the appropriate contact information to report illicit discharges or other stormwater issues.

Year 5:

The City will continue to provide the appropriate contact information to report illicit discharges or other stormwater issues.

Go to Additional Pages

C. Illicit Discharge Detection and Elimination

Qualifying Local Programs:

The City and Cook County perform a variety of activities that meet the requirements of the Illicit Discharge Detection and Elimination minimum control measure. These activities include BMP's: C.1, C.2, C.3, C.4, C.5, C.6, C.7 and C.10.

Measurable Goals (include shared responsibilities)

☒ C.1 Sewer Map Preparation (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City currently has a complete storm sewer map of the City and outfalls to receiving streams.

Measurable Goals, including frequencies:

The goal of this program is to develop a storm sewer map for the City to allow for quicker, more accurate tracing procedures.

Milestones:

Year 1:

The Public Works Department will continue to update the map as needed.

Year 2:

The Public Works Department will continue to update the map as needed.

Year 3:

The Public Works Department will continue to update the map as needed.

Year 4:

The Public Works Department will continue to update the map as needed.

Year 5:

The Public Works Department will continue to update the map as needed.

Go to Additional Pages

☒ C.2 Regulatory Control Program (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City and County have ordinances in place to prohibit non-stormwater discharges to the municipal separate storm sewer system.

Measurable Goals, including frequencies:

The goal of this program is to eliminate any non-storm water discharges to the storm sewer system.

Milestones:

Year 1:

The City will continue to enforce the regulatory control measures to prohibit or eliminate non-stormwater discharges.

Year 2:

The City will continue to enforce the regulatory control measures to prohibit or eliminate non-stormwater discharges.

Year 3:

The City will continue to enforce the regulatory control measures to prohibit or eliminate non-stormwater discharges.

Year 4:

The City will continue to enforce the regulatory control measures to prohibit or eliminate non-stormwater discharges.

Year 5:

The City will continue to enforce the regulatory control measures to prohibit or eliminate non-stormwater discharges.

Go to Additional Pages

☒ C.3 Detection/Elimination Prioritization Plan (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City also has procedures for tracking reports of illicit discharges and the enforcement measures the Code to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

Measurable Goals, including frequencies:

The goal of this program is to develop a procedure for receiving, tracking, investigating and eliminating illicit discharges to the storm sewer system.

Milestones:

Year 1:

The City will continue the illicit discharge procedures.

Year 2:

The City will continue the illicit discharge procedures.

Year 3:

The City will continue the illicit discharge procedures.

Year 4:

The City will continue the illicit discharge procedures.

Year 5:

The City will continue the illicit discharge procedures.

Go to Additional Pages

☒ C.4 Illicit Discharge Tracing Procedures (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City also has procedures for tracking reports of illicit discharges and the enforcement measures the Code to facilitate the elimination of illicit

Measurable Goals, including frequencies:

The goal of this program is to develop a procedure for tracking, investigating and eliminating illicit discharges to the storm sewer system.

Milestones:

Year 1:

The City will continue the illicit discharge procedures.

Year 2:

The City will continue the illicit discharge procedures.

Year 3:

The City will continue the illicit discharge procedures.

Year 4:

The City will continue the illicit discharge procedures.

Year 5:

The City will continue the illicit discharge procedures.

Go to Additional Pages

☒ C.5 Illicit Source Removal Procedures (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City also has procedures for tracking reports of illicit discharges and the enforcement measures the Code to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

Measurable Goals, including frequencies:

The goal of this program is to develop a procedure for tracking, investigating and eliminating illicit discharges to the storm sewer system.

Milestones:

Year 1:

The City will continue the illicit discharge procedures.

Year 2:

The City will continue the illicit discharge procedures.

Year 3:

The City will continue the illicit discharge procedures.

Year 4:

The City will continue the illicit discharge procedures.

Year 5:

The City will continue the illicit discharge procedures.

Go to Additional Pages

☒ C.6 Program Evaluation and Assessment (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City performs an annual audit of the NPDES program and Stormwater Management Program Plan to verify compliance with the permit requirements and overall effectiveness of the program. The City will monitor the progress of watershed work groups and the establishment of any applicable TMDLs or other Watershed Management Plans.

Measurable Goals, including frequencies:

The goal of this activity to assess the City's NPDES program for compliance and effectiveness as well as ensure compliance with applicable TMDLs and Watershed Management Plans.

Milestones:

Year 1:

The City will continue to perform the annual evaluation and assessment.

Year 2:

The City will continue to perform the annual evaluation and assessment.

Year 3:

The City will continue to perform the annual evaluation and assessment.

Year 4:

The City will continue to perform the annual evaluation and assessment.

Year 5:

The City will continue to perform the annual evaluation and assessment.

Go to Additional Pages

☒ C.7 Visual Dry Weather Screening (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City will perform inspections of all MS4 outfalls during dry weather conditions or as determined by the inspection prioritization plan.

Measurable Goals, including frequencies:

The goal of this activity is to identify outfalls with potential illicit discharges.

Milestones:

Year 1:

The City will continue to perform annual inspections.

Year 2:

The City will continue to perform annual inspections.

Year 3:

The City will continue to perform annual inspections.

Year 4:

The City will continue to perform annual inspections.

Year 5:

The City will continue to perform annual inspections.

Go to Additional Pages

☐ C.8 Pollutant Field Testing

☐ C.9 Public Notification

☒ C.10 Other Illicit Discharge Controls (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City performs annual monitoring of the receiving waters upstream and downstream of all MS4 discharge points.

A segment of Addison Creek (GLA-04) is in an approved TMDL water quality plan (Total Maximum Daily Loads for Salt Creek Illinois, dated October 2004).

A segment of Addison Creek (GLA-04) is identified on the IEPAs 303d list as impaired for aquatic life (alpha. - BHC, copper, hexachlorobenzene, total phosphorus, PCBs, and sedimentation) and aesthetic quality (bottom deposits, total phosphorus and visible oil).

The Village will monitor the progress of watershed work groups and the establishment of any applicable TMDLs or other Watershed Management Plans. The Village will continue the monitoring program.

Measurable Goals, including frequencies:

The goal of this activity is to monitor receiving streams for potential changes due to the discharge of stormwater and ensure compliance with applicable TMDLs and Watershed Management Plans to reduce waste load allocations.

Milestones:

Year 1:

The City will continue the monitoring program.

Year 2:

The City will continue the monitoring program.

Year 3:

The City will continue the monitoring program.

Year 4:

The City will continue the monitoring program.

Year 5:

The City will continue the monitoring program.

Go to Additional Pages

D. Construction Site Runoff Control

Measurable Goals (include shared responsibilities)

Qualifying Local Programs:

The City performs a variety of activities that meet the requirements of the Construction Site Runoff Control minimum control measure. This program relates to BMP numbers D.1, D.2, D.4, D.5 and D.6.

☒ D.1 Regulatory Control Program (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has ordinances and procedures in place that require construction site runoff controls. These procedures include review of the site development plans by qualified staff and inspection/enforcement procedures.

Measurable Goals, including frequencies:

The goal of these activities are to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the construction site runoff control program.

Year 2:

The City will continue the construction site runoff control program.

Year 3:

The City will continue the construction site runoff control program.

Year 4:

The City will continue the construction site runoff control program.

Year 5:

The City will continue the construction site runoff control program.

Go to Additional Pages

☒ D.2 Erosion and Sediment Control BMPs (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has ordinances and procedures in place that require construction site runoff controls. These procedures include review of the site development plans by qualified staff and inspection/enforcement procedures.

Measurable Goals, including frequencies:

The goal of these activities are to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the construction site runoff control program.

Year 2:

The City will continue the construction site runoff control program.

Year 3:

The City will continue the construction site runoff control program.

Year 4:

The City will continue the construction site runoff control program.

Year 5:

The City will continue the construction site runoff control program.

Go to Additional Pages

☐ D.3 Other Waste Control Program

☒ D.4 Site Plan Review Procedures (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has ordinances and procedures in place that require construction site runoff controls. These procedures include review of the site development plans by qualified staff and inspection/enforcement procedures.

Measurable Goals, including frequencies:

The City will continue these activities to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the construction site runoff control program.

Year 2:

The City will continue the construction site runoff control program.

Year 3:

The City will continue the construction site runoff control program.

Year 4:

The City will continue the construction site runoff control program.

Year 5:

The City will continue the construction site runoff control program.

Go to Additional Pages

☒ D.5 Public Information Handling Procedures (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has procedures in place for addressing reports from residents related to construction site runoff.

Measurable Goals, including frequencies:

The City will continue to address the reporting of problems related to construction site runoff.

Milestones:

Year 1:

The City will continue the program to address reports related to construction site runoff control issues.

Year 2:

The City will continue the program to address reports related to construction site runoff control issues.

Year 3:

The City will continue the program to address reports related to construction site runoff control issues.

Year 4:

The City will continue the program to address reports related to construction site runoff control issues.

Year 5:

The City will continue the program to address reports related to construction site runoff control issues.

Go to Additional Pages

☒ D.6 Site Inspection/Enforcement Procedures (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has ordinances and procedures in place that require construction site runoff controls. These procedures include review of the site development plans by qualified staff and inspection/enforcement procedures.

Measurable Goals, including frequencies:

The City will continue these activities to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the construction site runoff control program.

Year 2:

The City will continue the construction site runoff control program.

Year 3:

The City will continue the construction site runoff control program.

Year 4:

The City will continue the construction site runoff control program.

Year 5:

The City will continue the construction site runoff control program.

Go to Additional Pages

☐ D.7 Other Construction Site Runoff Controls

E. Post-Construction Runoff Control

Qualifying Local Programs:

The City performs a variety of activities that meet the requirements of the Post-Construction Runoff Control minimum control measure. This relates to BMP numbers E.2, E.3, E.4, E.5 and E.6.

Measurable Goals (include shared responsibilities)

- ☐ E.1 Community Control Strategy
- ☒ E.2 Regulatory Control Program

Brief Description of BMP:

The City has ordinances and procedures in place that protect water quality and reduce the discharge of pollutants by controlling post-construction site runoff. These procedures are amendable to modification due to climate change. These procedures include review of the BMP designs by qualified staff and inspection/enforcement during and after construction.

Measurable Goals, including frequencies:

The City will continue these activities to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the post construction runoff control program.

Year 2:

The City will continue the post construction runoff control program.

Year 3:

The City will continue the post construction runoff control program.

Year 4:

The City will continue the post construction runoff control program.

Year 5:

The City will continue the post construction runoff control program.

Go to Additional Pages

- ☒ E.3 Long Term O & M Procedures

(You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has ordinances and procedures in place that protect water quality and reduce the discharge of pollutants by controlling post-construction site runoff. These procedures include review of the BMP designs by qualified staff and inspection/ enforcement during and after construction.

The City in accordance with MWRDGC WMO guidelines has procedures in place requiring the identification and responsible entity for long term maintenance of post construction BMPs required for development and an ordinance in place to ensure the preservation of natural features on development sites including the preservation of depressional storage.

Measurable Goals, including frequencies:

The City will continue these activities during the permitting process to identify and develop long term maintenance plans of BMPs and to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the post construction runoff control program.

Year 2:

The City will continue the post construction runoff control program.

Year 3:

The City will continue the post construction runoff control program.

Year 4:

The City will continue the post construction runoff control program.

Year 5:

The City will continue the post construction runoff control program.

Go to Additional Pages

☒ E.4 Pre-Construction Review of BMP Designs (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has ordinances and procedures in place that protect water quality and reduce the discharge of pollutants by controlling post-construction site runoff. These procedures include review of the BMP designs by qualified staff and inspection/ enforcement during and after construction.

Measurable Goals, including frequencies:

The City will continue these activities to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the post construction runoff control program.

Year 2:

The City will continue the post construction runoff control program.

Year 3:

The City will continue the post construction runoff control program.

Year 4:

The City will continue the post construction runoff control program.

Year 5:

The City will continue the post construction runoff control program.

Go to Additional Pages

☒ E.5 Site Inspections During Construction (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has ordinances and procedures in place that protect water quality and reduce the discharge of pollutants by controlling construction site runoff. These procedures include review of the BMP designs by qualified staff and inspection/enforcement during and after construction.

Measurable Goals, including frequencies:

The City will continue these activities to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the post construction runoff control program.

Year 2:

The City will continue the post construction runoff control program.

Year 3:

The City will continue the post construction runoff control program.

Year 4:

The City will continue the post construction runoff control program.

Year 5:

The City will continue the post construction runoff control program.

Go to Additional Pages

☒ E.6 Post-Construction Inspections

Brief Description of BMP:

The City has ordinances and procedures in place that protect water quality and reduce the discharge of pollutants by controlling post-construction site runoff. These procedures include review of the BMP designs by qualified staff and inspection/ enforcement during and after construction.

Measurable Goals, including frequencies:

The City will continue these activities to reduce or prevent the discharge of pollutants from construction sites to the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue the post construction runoff control program.

Year 2:

The City will continue the post construction runoff control program.

Year 3:

The City will continue the post construction runoff control program.

Year 4:

The City will continue the post construction runoff control program.

Year 5:

The City will continue the post construction runoff control program.

Go to Additional Pages

☐ E.7 Other Post-Construction Runoff Controls

F. Pollution Prevention/Good Housekeeping

Measurable Goals (include shared responsibilities)

Qualifying Local Programs:

The City performs a variety of activities that meet the requirements of the Post-Construction Runoff Control minimum control measure. This relates to BMP numbers F.1, F.2, F.3, F.4, F.5, and F.6.

☒ F.1 Employee Training Program (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City will continue provide the training and other presentations that provide guidance and procedures for employees to reduce or eliminate the discharge of pollutants from City owned facilities and activities to the storm sewer system.

Measurable Goals, including frequencies:

The City will continue to educate Public Works employees of current practices that contribute to storm water pollution and/or to develop new procedures and make revisions to existing procedures that will curtail the discharge of pollutants to storm sewer systems by Public Works employees, annually.

Milestones:

Year 1:

The City will continue the pollution prevention and good housekeeping program to reduce or prevent the discharge of pollutants from municipal activities to the storm sewer system.

Year 2:

The City will continue the pollution prevention and good housekeeping program to reduce or prevent the discharge of pollutants from municipal activities to the storm sewer system.

Year 3:

The City will continue the pollution prevention and good housekeeping program to reduce or prevent the discharge of pollutants from municipal activities to the storm sewer system.

Year 4:

The City will continue the pollution prevention and good housekeeping program to reduce or prevent the discharge of pollutants from municipal activities to the storm sewer system.

Year 5:

The City will continue the pollution prevention and good housekeeping program to reduce or prevent the discharge of pollutants from municipal activities to the storm sewer system.

Go to Additional Pages

☒ F.2 Inspection and Maintenance Program (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has procedures and inspection forms for the routine inspections of ponds, stream channels and storm sewer outfalls. The City typically completes the inspection cycle once every three years or as funding allows.

Measurable Goals, including frequencies:

The City will continue the inspection and maintenance program to identify and repair any stormwater issues with the municipal separate storm sewer system.

Milestones:

Year 1:

The City will continue with the inspection and maintenance program.

Year 2:

The City will continue with the inspection and maintenance program.

Year 3:

The City will continue with the inspection and maintenance program.

Year 4:

The City will continue with the inspection and maintenance program.

Year 5:

The City will continue with the inspection and maintenance program.

Go to Additional Pages

☒ F.3 Municipal Operations Storm Water Contro(You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has procedures and policies in place to prevent or reduce the discharge of pollutants from municipal operations and actions.

Measurable Goals, including frequencies:

The City will continue the municipal operations waste control program to curtail the discharge of pollutants to storm sewer systems by Public Works employees.

Milestones:

Year 1:

The City will continue the municipal operations stormwater control program.

Year 2:

The City will continue the municipal operations stormwater control program.

Year 3:

The City will continue the municipal operations stormwater control program.

Year 4:

The City will continue the municipal operations stormwater control program.

Year 5:

The City will continue the municipal operations stormwater control program.

Go to Additional Pages

☒ F.4 Municipal Operations Waste Disposal (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City has procedures and policies to require the appropriate of municipal generated wastes.

Measurable Goals, including frequencies:

The City will continue the municipal operations waste control program to curtail the discharge of pollutants to storm sewer systems by Public Works employees.

Milestones:

Year 1:

The City will continue the municipal waste operations control program.

Year 2:

The City will continue the municipal waste operations control program.

Year 3:

The City will continue the municipal waste operations control program.

Year 4:

The City will continue the municipal waste operations control program.

Year 5:

The City will continue the municipal waste operations control program.

Go to Additional Pages

☒ F.5 Flood Management/Assess Guidelines (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City ordinances require the appropriate management of development and other uses within special flood hazard areas.

Measurable Goals, including frequencies:

The City will continue to enforce the ordinance regarding potential uses of the special flood hazard area to limit potential for the discharge of contaminants to the storm sewer system.

Milestones:

Year 1:

The City will continue the special flood hazard area development and use requirements.

Year 2:

The City will continue the special flood hazard area development and use requirements.

Year 3:

The City will continue the special flood hazard area development and use requirements.

Year 4:

The City will continue the special flood hazard area development and use requirements.

Year 5:

The City will continue the special flood hazard area development and use requirements.

Go to Additional Pages

☒ F.6 Other Municipal Operations Controls (You may need to go to the next page to fill in this information)

Brief Description of BMP:

The City performs a variety of activities that reduce or prevent pollutants including pesticides, herbicides, fertilizers and trash from entering the storm sewer system and to minimize exposure. These activities are part of the City's municipal operations

Measurable Goals, including frequencies:

The City will continue the municipal operations controls to reduce/minimze or prevent the discharge of pollutants to storm sewer systems by Public Works employees.

Milestones:

Year 1:

The City will continue the municipal operations control program.

Year 2:

The City will continue the municipal operations control program.

Year 3:

The City will continue the municipal operations control program.

Year 4:

The City will continue the municipal operations control program.

Year 5:

The City will continue the municipal operations control program.

Go to Additional Pages

Part III. Certification

I certify under penalty of law that this document an all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fines and imprisonment.

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)).

Jeffrey Sherwin	Mayor	May 19, 2016
Authorized Representative Name	Title	Date

Authorized Representative Signature

You may complete this form online and save a copy locally before printing and signing the form. It should then be sent to:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Attn: Permit Section
P.O. Box 19276
1021 North Grand Avenue East
Springfield, IL 62794-9276

Information required by this form must be provided to comply with 415 ILCS 5/39 (2000). Failure to do so may prevent this form from being processed and could result in your application being denied.

Additional Info - Page 1

A. Public Education and Outreach

BMP Number _____

Add Another BMP

Delete Last Entry

Additional Info - Page 2

B. Public Participation/Involvement

BMP Number _____

Add Another BMP

Delete Last Entry

Additional Info - Page 3

C. Illicit Discharge Detection and Elimination

BMP Number C10

The City Health Department Inspection forms specifically address non-stormwater discharges into the storm sewer system from commercial sources.

Add Another BMP

Delete Last Entry

Additional Info - Page 4

D. Construction Site Runoff Control

BMP Number _____

Add Another BMP

Delete Last Entry

Additional Info - Page 5

E. Post-Construction Runoff

BMP Number _____

Add Another BMP

Delete Last Entry

Additional Info - Page 6

F. Pollution Prevention/Good

BMP Number _____

Add Another BMP

Delete Last Entry

APPENDIX 7

City of Northlake Annual Facility Inspection Reports: Years 9-13

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.

REPORT PERIOD:	FROM: MARCH 2015	TO: MARCH 2016

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

NAME: City of Northlake		TELEPHONE NUMBER: 708-343-8700
MAILING ADDRESS: 55 E. North Avenue		
CITY: Northlake	STATE: IL	ZIP: 60164
CONTACT PERSON: Jeffrey Sherwin (Person responsible for Annual Report)		

NAME(S) OF GOVERNMENTAL ENTITY(IES) IN WHICH MS4 IS LOCATED: (As it appears on the current permit)

Cook County	

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	☐	4. Construction Site Runoff Control	☐
2. Public Participation/Involvement	☐	5. Post-Construction Runoff Control	☐
3. Illicit Discharge Detection & Elimination	☒	6. Pollution Prevention/Good Housekeeping	☐

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 20, 2016

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.

IL 532 2585
WPC 691 JANUARY-2003

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Part F. Construction Projects Conducted During Year 13 .....F-1

Part A. Changes to Best Management Practices

Note: **X indicates BMPs performed that were proposed in your NPDES permit**
✓ indicates changes to BMPs proposed in your NPDES permit

Year 14	Year 15	Year 16	Year 17	Year 18	
MS4					
A. Public Education and Outreach					
X	X	X	X	X	A.1 Distributed Paper Material
					A.2 Speaking Engagement
X	X	X	X	X	A.3 Public Service Announcement
					A.4 Community Event
					A.5 Classroom Education Material
X	X	X	X	X	A.6 Other Public Education
B. Public Participation/Involvement					
					B.1 Public Panel
X	X	X	X	X	B.2 Educational Volunteer
					B.3 Stakeholder Meeting
					B.4 Public Hearing
X	X	X	X	X	B.5 Volunteer Monitoring
X	X	X	X	X	B.6 Program Coordination
X	X	X	X	X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination					
X	X	X	X	X	C.1 Storm Sewer Map Preparation
X	X	X	X	X	C.2 Regulatory Control Program
X	X	X	X	X	C.3 Detection/Elimination Prioritization Plan
X	X	X	X	X	C.4 Illicit Discharge Tracing Procedures
X	X	X	X	X	C.5 Illicit Source Removal Procedures
✓	✓	✓	✓	✓	C.6 Program Evaluation and Assessment
					C.7 Visual Dry Weather Screening
					C.8 Pollutant Field Testing
					C.9 Public Notification
✓	✓	✓	✓	✓	C.10 Other Illicit Discharge Controls

Year 14	Year 15	Year 16	Year 17	Year 18	
MS4					
D. Construction Site Runoff Control					
X	X	X	X	X	D.1 Regulatory Control Program
X	X	X	X	X	D.2 Erosion and Sediment Control BMPs
					D.3 Other Waste Control Program
X	X	X	X	X	D.4 Site Plan Review Procedures
					D.5 Public Information Handling Procedures
					D.6 Site Inspection/Enforcement Procedures
					D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control					
					E.1 Community Control Strategy
X	X	X	X	X	E.2 Regulatory Control Program
					E.3 Long Term O&M Procedures
X	X	X	X	X	E.4 Pre-Const Review of BMP Designs
					E.5 Site Inspections During Construction
					E.6 Post-Construction Inspections
					E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping					
X	X	X	X	X	F.1 Employee Training Program
X	X	X	X	X	F.2 Inspection and Maintenance Program
X	X	X	X	X	F.3 Municipal Operations Storm Water Control
					F.4 Municipal Operations Waste Disposal
					F.5 Flood Management/Assess Guidelines
					F.6 Other Municipal Operations Controls

Part B. Status of Compliance with Permit Conditions

(Provide 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 maximum extent practicable [MEP], and your identified measurable goals for each of the minimum control measures.)

The status of BMPs and measurable goals performed in Year 13 are described below.

1. Public Education and Outreach

The City of Northlake (City) committed to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City committed to implementation of BMPs related to A.1, A.3, and A.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

A.1 Distributed Paper Material
Measurable Goals: *Make informational material and brochures available to the public.*

The City has obtained informational brochures related to stormwater education and water quality and made them available for distribution.

A.3 Public Service Announcement
Measurable Goals: *The City will include a stormwater and\or water quality related article in the City newsletter once a year.*

The City has obtained articles related to stormwater/water quality and included a stormwater or water quality article in the City newsletter annually.

A.6 Other Public Education
Measurable Goals: *The City will monitor website links and update as new information becomes available.*

The City has obtained informational website links and will post at least one on the City website by the end of the permit year.

2. Public Participation/Involvement

The City committed to performing activities and services related to the Public Participation/Involvement minimum control measure under BMP numbers B.2, B.5, B.6 and B.7. The status or progress for each of the measurable goals related to these BMPs is presented below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

The City will continue to support and work with the Adison Creek River Conservancy District (ACRCD) on water quality and stream enhancement activities.

B.7 Other Public Involvement

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. They City will continue to address problems with in a timely manner.*

The City has posted contact information on the City website to allow residents to report possible illicit discharges and/or stormwater maintenance problems. The City will work to provide a Citizens Report form or direct link to the Public Works Department during the next permit year.

3. Illicit Discharge Detection and Elimination

The City committed to perform some activities related to the Illicit Discharge Detection and Elimination minimum control under BMP numbers C.1, C.2, C.3, C.4, C.5, C.6 and C.10. The status or progress for each of the measurable goals related to these BMPs is presented below.

C.1 Storm Sewer Map Preparation

Measurable Goals: *The City will continue to update the storm sewer map to reflect new and re-development.*

The City has completed a storm sewer map of the City showing the location of all outfalls and receiving waters. The City's storm sewer map is continually updated as appropriate.

C.2 Regulatory Control Program

Measurable Goals: *The City and MWRDGC will continue to enforce the Ordinance.*

The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD and the City.

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures and C.5 Illicit Source Removal Procedures

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

The City has developed procedures for investigating reports of illicit discharges and prepared forms to document these reports.

C.6 Program Evaluation and Assessment

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

The City has performed yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

C.10 Other Illicit Discharge Controls

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

The City continues to perform annual monitoring of the receiving streams upstream and downstream of the MS4 discharges to determine the effectiveness of the program and selected BMPs.

4. Construction Site Runoff Control

The City committed to performing activities and services related to the Construction Site Runoff Control minimum control measure under BMP numbers D.1, D.2 and D.4. The status or progress for each of the measurable goals related to these BMPs is presented below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures
Measurable Goal: *The City will continue the review and inspection procedures.*

The City will continue the procedures to require sediment and erosion measures for all developments over 1 acre within the City meet the requirements contained in the Illinois Urban Manual.

5. Post-Construction Runoff Control

The City committed to performing activities and services related to the Post-Construction Site Runoff Control minimum control measure under BMP numbers E.2 and E.4. The status or progress for each of the measurable goals related to this BMP is presented below.

E.2 Regulatory Control Program
Measurable Goal: *The City will enforce the Ordinance revisions.*

The City has procedures to require the site design for development projects that disturb more than 1 acre have controls in place that would protect water quality and reduce the discharge of pollutants for the life of the development project. The City enforces these regulations in accordance with the MWRDGC Watershed Management Ordinance (WMO).

E.4 Pre-Construction Review of BMP Designs
Measurable Goal: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

The City will continue the plan and review procedures that include the review and inspection of stormwater BMPs.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City committed to perform activities for BMP numbers F.1, F.2 and F.3. The status or progress for each of the measurable goals related to these BMPs is presented below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control
Measurable Goals: *The City will continue with in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.*

The City will continue annual in-house training and modify procedures as necessary to prevent the discharge of pollutants to the storm sewer system by City employees. The City has procedures regarding the storage of spoil piles, sediment removal and stores salt in a covered facility.

F.2 Inspection and Maintenance Program
The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds,

streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

The City will continue the inspection program and will utilize the inspection forms to document these activities.

Part C. Information and Data Collection Results

(Provide information and water quality sampling/monitoring data related to illicit discharge detection and elimination collected during the reporting period.)

Year 13 activities related to illicit discharge detection and elimination consisted primarily of program planning efforts. Therefore, no information or data was collected during this period.

Part D. Summary of Year 14 Stormwater Activities

(Present a summary of the storm water activities you plan to undertake during the next reporting cycle, including an implementation schedule in the sections following the table.)

The table shown below summarizes the BMPs committed to for Year 14. Specific BMPs and measurable goals for Year 14 program development activities are presented in the sections following the table.

Note: X indicates BMPs committed to for Year 14.

Year 14 MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
X	A.3 Public Service Announcement
	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
X	B.2 Educational Volunteer
	B.3 Stakeholder Meeting
	B.4 Public Hearing
X	B.5 Volunteer Monitoring
X	B.6 Program Coordination
X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 14 MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

1. Public Education and Outreach

The City is committing to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City commits to implementation of BMPs related to A.1, A.3, and A.6 as described below.

A.1 Distributed Paper Material
The City will make available informational brochures to the public to increase awareness of impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in stormwater runoff.

Measurable Goals: *The City will make the informational material and brochures available at the Public Works Department and City Hall.*

A.3 Public Service Announcement
The City will include a stormwater and/or water quality related article once a year in the City's newsletter.

Measurable Goals: *The City will include a stormwater and/or water quality related article once a year in the City's newsletter.*

A.6 Other Public Education
The City will create a website link on the City website to the public to increase awareness of impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. The City will also post their NOI on the City website.

Measurable Goals: *The City will post and monitor website link(s) and update as new information becomes available.*

2. Public Participation/Involvement

The City will perform activities and services related to the Public Participation/Involvement minimum control measure. BMPs will be implemented under BMP numbers B.2, B.5, B.6 and B.7 as described below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
The ACRCD will provide organization, supplies and/or training to local schools, businesses or civic groups for water quality and stream enhancement activities.

Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

B.7 Other Public Involvement
The City will create a Citizens Report Form or similar method on the City website that includes reporting illicit discharges to the storm sewer system and maintenance problems associated with ponds, streams, or outfalls.

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. The City will continue to address problems in a timely manner.*

3. Illicit Discharge Detection and Elimination

The City commits to performing some activities related to the Illicit Discharge Detection and Elimination minimum control. BMPs will be implemented under BMP numbers C.1, C.2, C.3, C.4 and C.5 as described below.

C.1 Storm Sewer Map Preparation
The City will prepare a storm sewer map of the entire City including the names of all outfalls and receiving streams.

Measurable Goals: *The City will update the storm sewer map to reflect new and re-development.*

C.2 Regulatory Control Program
The City and MWRD will continue to enforce the MWRD ordinance that prohibits non-stormwater discharges to any storm sewer within the City or under the jurisdiction of the MWRD.

Measurable Goals: *The City and MWRD will enforce the Ordinance.*

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures, and C.5 Illicit Source Removal Procedures
The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City developed procedures for tracking reports of illicit discharges and enforcement guidelines to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

C.6 Program Evaluation and Assessment
The City will perform yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

C.10Other Illicit Discharge Controls
The City will perform annual monitoring of the receiving streams upstream and downstream of the MS4 discharges.

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

4. Construction Site Runoff Control

The City will perform activities and services related to the Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers D.1, D.2, D.4 and D.6 as described below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures, D.6 Site Inspection/Enforcement Procedures
The City has a regulatory control program that requires sediment and erosion control measures for all developments over 1 acre within the City. The City requires that these measures be submitted to the City during the Site Plan Review Procedures and provides resources on sediment and erosion control BMPs. The City also performs inspections on development sites during construction to verify compliance with the development plans and local codes and procedures. In addition, the City will continue to update the Ordinance and Public Works procedures to meet the NPDES requirements.

Measurable Goal: *The City will continue the review and inspection procedures.*

5. Post-Construction Runoff Control

The City will perform activities and services related to the Post-Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP number E.2, E.4, E.5, and E.6 as described below.

E.2 Regulatory Control Program, E.4 Pre-Construction Review of BMP Designs, E.5 Site Inspections During Construction, E.6 Post Construction Inspections
The City Engineer's regulatory control program for post construction runoff control includes site development plan review procedures to specifically evaluate structural and nonstructural stormwater BMPs and inspection of the site during and after construction to verify compliance with the approved plans and NPDES requirements. The program also includes guidelines for enforcement procedures to make sure developments comply with local codes and ordinances.

Measurable Goals: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City will perform BMPs under BMP numbers F.1 and F.3 as described below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control
The City will hand out literature and/or provide in-house presentations that provide guidance and procedures for employees to reduce or eliminate the discharge of pollutants from City owned facilities to the storm sewer system. The goal of this BMP will be to educate City employees of current practices that contribute to stormwater pollution and/or to develop new procedures and make revisions to existing procedures that will curtail the discharge of pollutants to storm sewer systems by City employees.

Measurable Goals: *The City will continue annual in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.*

F.2 Inspection and Maintenance Program
The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

Part E. Notice of Qualifying Local Program

The City of Northlake Municipal Code (Code), Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the Addison Creek River Conservancy District (ACRCD), and the City of Northlake Public Works Department are considered Qualifying Local Programs (QLPs) that count towards satisfying the requirements of the six minimum control measures. Listed below is a summary of the activities performed by the QLPs during Year 13. In general, all activities performed by the QLPs during Year 13 will be continued in subsequent years.

1. Public Education and Outreach:
The City does not currently have a qualifying local program for public education and outreach.

2. Public Participation/Involvement:
The ACRCD governs the preservation and maitnenance of Addison Creek and holds monthly public meetings to discuss activities and issues related to the Creek. This program relates to BMP numbers B.1, B.3, and B.4.

3. Illicit Discharge Detection and Elimination:
The MWRDGC Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD. Additionally, the City of Northlake Municipal Code places restrictions on the type and composition of substances that may be discharged to any natural outlets, waters, or storm sewers within the City. These programs relate to BMP C.2.

4. Construction Site Runoff Control:
The City has a soil erosion and sediment control program that requires erosion control plans to be included in all plan submittals and inspection of construction sites to ensure compliance with approved design and standards. This program relates to BMP numbers D.1, D.4 and D.6.

5. Post-Construction Runoff Control:

The City of Northlake Municipal Code and the MWRDGC WMO has provisions to address the quality of stormwater runoff, as well as standards to ensure the long-term operation and maintenance of stormwater facilities. In addition, the MWRDGC requires post construction BMPs for volume control. The WMO and City Code provides permit and design requirements for stormwater detention facilities and requires owners to maintain stormwater facilities to prevent the degradation of local water quality. The City also has a soil erosion and sediment control program that requires the inspection of construction sites to ensure compliance with approved design and standards. This relates to BMP numbers E.2, E.3, E.5 and E.6.

6. Pollution Prevention/Good Housekeeping:
The City of Northlake Municipal Code has standards aimed at reducing the amount of pollutants discharged into the stormsewer system and promoting regular maintenance and long-term operation of stormsewer systems within the City. The City requires all privately owned drainage systems be subjected to inspection not less than once a year with reports to be filed detailing inpection results and any deficiencies found. The Ordinance also requires all pet owners to be responsible for the removal and sanitary disposal of all animal waste in the City. This relates to BMP numbers F.2 and F.6.

Part F. Construction Projects Conducted During Year 13

(Provide a list of construction projects your entity has paid for during the reporting period.)

There was one project over 1 acre funded by the City during Year 13.

1. Grant Park Bike Path (1.66 acres), started May 2015, completed September 2015.

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.

REPORT PERIOD:	FROM: MARCH 2014	TO: MARCH 2015

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

NAME: City of Northlake		TELEPHONE NUMBER: 708-343-8700
MAILING ADDRESS: 55 E. North Avenue		
CITY: Northlake	STATE: IL	ZIP: 60164
CONTACT PERSON: Jeffrey Sherwin (Person responsible for Annual Report)		

NAME(S) OF GOVERNMENTAL ENTITY(IES) IN WHICH MS4 IS LOCATED: (As it appears on the current permit)

Cook County	

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	☐	4. Construction Site Runoff Control	☐
2. Public Participation/Involvement	☐	5. Post-Construction Runoff Control	☐
3. Illicit Discharge Detection & Elimination	☒	6. Pollution Prevention/Good Housekeeping	☐

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 22, 2015

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.

IL 532 2585
WPC 691 JANUARY-2003

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Part A. Changes to Best Management Practices

Note: X indicates BMPs performed that were proposed in your NPDES permit
✓ indicates changes to BMPs proposed in your NPDES permit

Year 11	Year 12	Year 13	Year 14	Year 15	MS4
					A. Public Education and Outreach
X	X	X	X	X	A.1 Distributed Paper Material
					A.2 Speaking Engagement
X	X	X	X	X	A.3 Public Service Announcement
					A.4 Community Event
					A.5 Classroom Education Material
X	X	X	X	X	A.6 Other Public Education
					B. Public Participation/Involvement
					B.1 Public Panel
X	X	X	X	X	B.2 Educational Volunteer
					B.3 Stakeholder Meeting
					B.4 Public Hearing
X	X	X	X	X	B.5 Volunteer Monitoring
X	X	X	X	X	B.6 Program Coordination
X	X	X	X	X	B.7 Other Public Involvement
					C. Illicit Discharge Detection and Elimination
X	X	X	X	X	C.1 Storm Sewer Map Preparation
X	X	X	X	X	C.2 Regulatory Control Program
X	X	X	X	X	C.3 Detection/Elimination Prioritization Plan
X	X	X	X	X	C.4 Illicit Discharge Tracing Procedures
X	X	X	X	X	C.5 Illicit Source Removal Procedures
✓	✓	✓	✓	✓	C.6 Program Evaluation and Assessment
					C.7 Visual Dry Weather Screening
					C.8 Pollutant Field Testing
					C.9 Public Notification
✓	✓	✓	✓	✓	C.10 Other Illicit Discharge Controls

Year 11	Year 12	Year 13	Year 14	Year 15	MS4
					D. Construction Site Runoff Control
X	X	X	X	X	D.1 Regulatory Control Program
X	X	X	X	X	D.2 Erosion and Sediment Control BMPs
					D.3 Other Waste Control Program
X	X	X	X	X	D.4 Site Plan Review Procedures
					D.5 Public Information Handling Procedures
					D.6 Site Inspection/Enforcement Procedures
					D.7 Other Construction Site Runoff Controls
					E. Post-Construction Runoff Control
					E.1 Community Control Strategy
					E.2 Regulatory Control Program
					E.3 Long Term O&M Procedures
X	X	X	X	X	E.4 Pre-Const Review of BMP Designs
					E.5 Site Inspections During Construction
					E.6 Post-Construction Inspections
					E.7 Other Post-Const Runoff Controls
					F. Pollution Prevention/Good Housekeeping
X	X	X	X	X	F.1 Employee Training Program
					F.2 Inspection and Maintenance Program
X	X	X	X	X	F.3 Municipal Operations Storm Water Control
					F.4 Municipal Operations Waste Disposal
					F.5 Flood Management/Assess Guidelines
					F.6 Other Municipal Operations Controls

Part B. Status of Compliance with Permit Conditions

(Provide 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 maximum extent practicable [MEP], and your identified measurable goals for each of the minimum control measures.)

The status of BMPs and measurable goals performed in Year 12 are described below.

1. Public Education and Outreach

The City of Northlake (City) committed to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City committed to implementation of BMPs related to A.1, A.3, and A.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

A.1 Distributed Paper Material
Measurable Goals: *Make informational material and brochures available to the public.*

The City has obtained informational brochures related to stormwater education and water quality and made them available for distribution.

A.3 Public Service Announcement
Measurable Goals: *The City will include a stormwater and\or water quality related article in the City newsletter once a year.*

The City has obtained several articles related to stormwater/water quality and included a stormwater or water quality article in the City newsletter.

A.6 Other Public Education
Measurable Goals: *The City will monitor website links and update as new information becomes available.*

The City has obtained informational website links and will post at least one on the City website by the end of the permit year.

2. Public Participation/Involvement

The City committed to performing activities and services related to the Public Participation/Involvement minimum control measure under BMP numbers B.2, B.5, B.6 and B.7. The status or progress for each of the measurable goals related to these BMPs is presented below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

The City will continue to support and work with the ACRCD on water quality and stream enhancement activities.

B.7 Other Public Involvement

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. They City will continue to address problems with in a timely manner.*

The City has developed posted contact information on the City website to allow residents to report possible illicit discharges and/or stormwater maintenance problems. The City will work to provide a Citizens Report form or direct link to the Public Works Department during the next permit year.

3. Illicit Discharge Detection and Elimination

The City committed to perform some activities related to the Illicit Discharge Detection and Elimination minimum control under BMP numbers C.1, C.2, C.3, C.4 and C.5. The status or progress for each of the measurable goals related to these BMPs is presented below.

C.1 Storm Sewer Map Preparation

Measurable Goals: *The City will continue to update the storm sewer map to reflect new and re-development.*

The City has completed a storm sewer map of the City showing the location of all outfalls and receiving waters.

C.2 Regulatory Control Program

Measurable Goals: *The City and MWRDGC will continue to enforce the Ordinance.*

The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD and the City.

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures and C.5 Illicit Source Removal Procedures

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

The City has developed procedures for investigating reports of illicit discharges and prepared forms to document these reports.

C.6 Program Evaluation and Assessment

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

The City has performed yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

C.10Other Illicit Discharge Controls

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

The City has performed annual monitoring of the receiving streams upstream and downstream of the MS4 discharges to determine the effectiveness of the program and selected BMPs.

4. Construction Site Runoff Control

The City committed to performing activities and services related to the Construction Site Runoff Control minimum control measure under BMP numbers D.1, D.2 and D.4. The status or progress for each of the measurable goals related to these BMPs is presented below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures
Measurable Goal: *The City will continue the review and inspection procedures.*

The City will continue the procedures to require sediment and erosion measures.

5. Post-Construction Runoff Control

The City committed to performing activities and services related to the Post-Construction Site Runoff Control minimum control measure under BMP number E.4. The status or progress for each of the measurable goals related to this BMP is presented below.

E.4 Pre-Construction Review of BMP Designs
Measurable Goal: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

The City will continue the plan and review procedures that include the review and inspection of stormwater BMPs.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City committed to perform activities for BMP numbers F.1 and F.3. The status or progress for each of the measurable goals related to these BMPs is presented below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control
Measurable Goals: *The City will continue with in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.* .

The City will continue in-house training and modify procedures as necessary to prevent the discharge of pollutants to the storm sewer system by City employees.

F.2 Inspection and Maintenance Program
The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

The City will continue the inspection program and will utilize the inspection forms to document these activities.

Part C. Information and Data Collection Results

(Provide information and water quality sampling/monitoring data related to illicit discharge detection and elimination collected during the reporting period.)

Year 12 activities related to illicit discharge detection and elimination consisted primarily of program planning efforts. Therefore, no information or data was collected during this period.

Part D. Summary of Year 13 Stormwater Activities

(Present a summary of the storm water activities you plan to undertake during the next reporting cycle, including an implementation schedule in the sections following the table.)

The table shown below summarizes the BMPs committed to for Year 13. Specific BMPs and measurable goals for Year 13 program development activities are presented in the sections following the table.

Note: X indicates BMPs committed to for Year 13.

Year 13 MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
X	A.3 Public Service Announcement
	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
X	B.2 Educational Volunteer
	B.3 Stakeholder Meeting
	B.4 Public Hearing
X	B.5 Volunteer Monitoring
X	B.6 Program Coordination
X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 13 MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

1. Public Education and Outreach

The City is committing to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City commits to implementation of BMPs related to A.1, A.3, and A.6 as described below.

A.1 Distributed Paper Material
The City will make available informational brochures to the public to increase awareness of impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in stormwater runoff.

Measurable Goals: *The City will make the informational material and brochures available at the Public Works Department and City Hall.*

A.3 Public Service Announcement
The City will include a stormwater and/or water quality related article once a year in the City's newsletter.

Measurable Goals: *The City will include a stormwater and/or water quality related article once a year in the City's newsletter.*

A.6 Other Public Education
The City will create a website link on the City website to the public to increase awareness of impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. The City will also post their NOI on the City website.

Measurable Goals: *The City will post and monitor website link(s) and update as new information becomes available.*

2. Public Participation/Involvement

The City will perform activities and services related to the Public Participation/Involvement minimum control measure. BMPs will be implemented under BMP numbers B.2, B.5, B.6 and B.7 as described below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
The ACRCD will provide organization, supplies and/or training to local schools, businesses or civic groups for water quality and stream enhancement activities.

Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

B.7 Other Public Involvement
The City will create a Citizens Report Form or similar method on the City website that includes reporting illicit discharges to the storm sewer system and maintenance problems associated with ponds, streams, or outfalls.

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. The City will continue to address problems in a timely manner.*

3. Illicit Discharge Detection and Elimination

The City commits to performing some activities related to the Illicit Discharge Detection and Elimination minimum control. BMPs will be implemented under BMP numbers C.1, C.2, C.3, C.4 and C.5 as described below.

C.1 Storm Sewer Map Preparation
The City will prepare a storm sewer map of the entire City including the names of all outfalls and receiving streams.

Measurable Goals: *The City will update the storm sewer map to reflect new and re-development.*

C.2 Regulatory Control Program
The City and MWRD will continue to enforce the MWRD ordinance that prohibits non-stormwater discharges to any storm sewer within the City or under the jurisdiction of the MWRD.

Measurable Goals: *The City and MWRD will enforce the Ordinance.*

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures, and C.5 Illicit Source Removal Procedures
The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City developed procedures for tracking reports of illicit discharges and enforcement guidelines to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

C.6 Program Evaluation and Assessment
The City will perform yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

C.10Other Illicit Discharge Controls
The City will perform annual monitoring of the receiving streams upstream and downstream of the MS4 discharges.

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

4. Construction Site Runoff Control

The City will perform activities and services related to the Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers D.1, D.2, D.4 and D.6 as described below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures, D.6 Site Inspection/Enforcement Procedures
The City has a regulatory control program that requires sediment and erosion control measures for all developments over 1 acre within the City. The City requires that these measures be submitted to the City during the Site Plan Review Procedures and provides resources on sediment and erosion control BMPs. The City also performs inspections on development sites during construction to verify compliance with the development plans and local codes and procedures. In addition, the City will continue to update the Ordinance and Public Works procedures to meet the NPDES requirements.

Measurable Goal: *The City will continue the review and inspection procedures.*

5. Post-Construction Runoff Control

The City will perform activities and services related to the Post-Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP number E.2, E.4, E.5, and E.6 as described below.

E.2 Regulatory Control Program, E.4 Pre-Construction Review of BMP Designs, E.5 Site Inspections During Construction, E.6 Post Construction Inspections
The City Engineer's regulatory control program for post construction runoff control includes site development plan review procedures to specifically evaluate structural and nonstructural stormwater BMPs and inspection of the site during and after construction to verify compliance with the approved plans and NPDES requirements. The program also includes guidelines for enforcement procedures to make sure developments comply with local codes and ordinances.

Measurable Goals: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City will perform BMPs under BMP numbers F.1 and F.3 as described below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control
The City will hand out literature and/or provide in-house presentations that provide guidance and procedures for employees to reduce or eliminate the discharge of pollutants from City owned facilities to the storm sewer system. The goal of this BMP will be to educate City employees of current practices that contribute to stormwater pollution and/or to develop new procedures and make revisions to existing procedures that will curtail the discharge of pollutants to storm sewer systems by City employees.

Measurable Goals: *The City will continue in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.*

F.2 Inspection and Maintenance Program
The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

Part E. Notice of Qualifying Local Program

The City of Northlake Municipal Code (Code), Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the Addison Creek River Conservancy District (ACRCD), and the City of Northlake Public Works Department are considered Qualifying Local Programs (QLPs) that count towards satisfying the requirements of the six minimum control measures. Listed below is a summary of the activities performed by the QLPs during Year 12. In general, all activities performed by the QLPs during Year 12 will be continued in subsequent years.

1. Public Education and Outreach:
The City does not currently have a qualifying local program for public education and outreach.

2. Public Participation/Involvement:
The ACRCD governs the preservation and maitnenance of Addison Creek and holds monthly public meetings to discuss activities and issues related to the Creek. This program relates to BMP numbers B.1, B.3, and B.4.

3. Illicit Discharge Detection and Elimination:
The MWRDGC Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD. Additionally, the City of Northlake Municipal Code places restrictions on the type and composition of substances that may be discharged to any natural outlets, waters, or storm sewers within the City. These programs relate to BMP C.2.

4. Construction Site Runoff Control:
The City has a soil erosion and sediment control program that requires erosion control plans to be included in all plan submittals and inspection of construction sites to ensure compliance with approved design and standards. This program relates to BMP numbers D.1, D.4 and D.6.

5. Post-Construction Runoff Control:

The City of Northlake Municipal Code has provisions to address the quality of stormwater runoff, as well as standards to ensure the long-term operation and maintenance of stormwater facilities. The City also has a soil erosion and sediment control program that requires the inspection of construction sites to ensure compliance with approved design and standards. This relates to BMP numbers E.2, E.3, E.5 and E.6.

6. Pollution Prevention/Good Housekeeping:
The City of Northlake Municipal Code has standards aimed at reducing the amount of pollutants discharged into the stormsewer system and promoting regular maintenance and long-term operation of stormsewer systems within the City. The City requires all privately owned drainage systems be subjected to inspection not less than once a year with reports to be filed detailing inpection results and any deficiencies found. The Ordinance also requires all pet owners to be responsible for the removal and sanitary disposal of all animal waste in the City. This relates to BMP numbers F.2 and F.6.

Part F. Construction Projects Conducted During Year 12

(Provide a list of construction projects your entity has paid for during the reporting period.)

There were no projects over 1 acre funded by the City during Year 12.

Year 11

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.

REPORT PERIOD:	FROM: MARCH 2013	TO: MARCH 2014

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

NAME: City of Northlake		TELEPHONE NUMBER: 708-343-8700
MAILING ADDRESS: 55 E. North Avenue		
CITY: Northlake	STATE: IL	ZIP: 60164
CONTACT PERSON: Jeffrey Sherwin (Person responsible for Annual Report)		

NAME(S) OF GOVERNMENTAL ENTITY(IES) IN WHICH MS4 IS LOCATED: (As it appears on the current permit)

Cook County	

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	☐	4. Construction Site Runoff Control	☐
2. Public Participation/Involvement	☐	5. Post-Construction Runoff Control	☐
3. Illicit Discharge Detection & Elimination	☒	6. Pollution Prevention/Good Housekeeping	☐

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 21, 2014

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.

IL 532 2585
WPC 691 JANUARY-2003

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Part A. Changes to Best Management Practices

Note: X indicates BMPs performed that were proposed in your NPDES permit
✓ indicates changes to BMPs proposed in your NPDES permit

Year 11	Year 12	Year 13	Year 14	Year 15		
MS4						
A. Public Education and Outreach						
X	X	X	X	X	A.1	Distributed Paper Material
					A.2	Speaking Engagement
X	X	X	X	X	A.3	Public Service Announcement
					A.4	Community Event
					A.5	Classroom Education Material
X	X	X	X	X	A.6	Other Public Education
B. Public Participation/Involvement						
					B.1	Public Panel
X	X	X	X	X	B.2	Educational Volunteer
					B.3	Stakeholder Meeting
					B.4	Public Hearing
X	X	X	X	X	B.5	Volunteer Monitoring
X	X	X	X	X	B.6	Program Coordination
X	X	X	X	X	B.7	Other Public Involvement
C. Illicit Discharge Detection and Elimination						
X	X	X	X	X	C.1	Storm Sewer Map Preparation
X	X	X	X	X	C.2	Regulatory Control Program
X	X	X	X	X	C.3	Detection/Elimination Prioritization Plan
X	X	X	X	X	C.4	Illicit Discharge Tracing Procedures
X	X	X	X	X	C.5	Illicit Source Removal Procedures
✓	✓	✓	✓	✓	C.6	Program Evaluation and Assessment
					C.7	Visual Dry Weather Screening
					C.8	Pollutant Field Testing
					C.9	Public Notification
✓	✓	✓	✓	✓	C.10	Other Illicit Discharge Controls

Year 11	Year 12	Year 13	Year 14	Year 15		
MS4						
D. Construction Site Runoff Control						
X	X	X	X	X	D.1	Regulatory Control Program
X	X	X	X	X	D.2	Erosion and Sediment Control BMPs
					D.3	Other Waste Control Program
X	X	X	X	X	D.4	Site Plan Review Procedures
					D.5	Public Information Handling Procedures
					D.6	Site Inspection/Enforcement Procedures
					D.7	Other Construction Site Runoff Controls
E. Post-Construction Runoff Control						
					E.1	Community Control Strategy
					E.2	Regulatory Control Program
					E.3	Long Term O&M Procedures
X	X	X	X	X	E.4	Pre-Const Review of BMP Designs
					E.5	Site Inspections During Construction
					E.6	Post-Construction Inspections
					E.7	Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping						
X	X	X	X	X	F.1	Employee Training Program
					F.2	Inspection and Maintenance Program
X	X	X	X	X	F.3	Municipal Operations Storm Water Control
					F.4	Municipal Operations Waste Disposal
					F.5	Flood Management/Assess Guidelines
					F.6	Other Municipal Operations Controls

Part B. Status of Compliance with Permit Conditions

(Provide 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 maximum extent practicable [MEP], and your identified measurable goals for each of the minimum control measures.)

The status of BMPs and measurable goals performed in Year 11 are described below.

1. Public Education and Outreach

The City of Northlake (City) committed to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City committed to implementation of BMPs related to A.1, A.3, and A.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

A.1 Distributed Paper Material
Measurable Goals: *Make informational material and brochures available to the public.*

The City has obtained informational brochures related to stormwater education and water quality and made them available for distribution.

A.3 Public Service Announcement
Measurable Goals: *The City will include a stormwater and\or water quality related article in the City newsletter once a year.*

The City has obtained several articles related to stormwater/water quality and included a stormwater or water quality article in the City newsletter.

A.6 Other Public Education
Measurable Goals: *The City will monitor website links and update as new information becomes available.*

The City has obtained informational website links and will post at least one on the City website by the end of the permit year.

2. Public Participation/Involvement

The City committed to performing activities and services related to the Public Participation/Involvement minimum control measure under BMP numbers B.2, B.5, B.6 and B.7. The status or progress for each of the measurable goals related to these BMPs is presented below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

The City will continue to support and work with the ACRCD on water quality and stream enhancement activities.

B.7 Other Public Involvement

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. They City will continue to address problems with in a timely manner.*

The City has developed posted contact information on the City website to allow residents to report possible illicit discharges and/or stormwater maintenance problems. The City will work to provide a Citizens Report form or direct link to the Public Works Department during the next permit year.

3. Illicit Discharge Detection and Elimination

The City committed to perform some activities related to the Illicit Discharge Detection and Elimination minimum control under BMP numbers C.1, C.2, C.3, C.4 and C.5. The status or progress for each of the measurable goals related to these BMPs is presented below.

C.1 Storm Sewer Map Preparation

Measurable Goals: *The City will continue to update the storm sewer map to reflect new and re-development.*

The City has completed a storm sewer map of the City showing the location of all outfalls and receiving waters.

C.2 Regulatory Control Program

Measurable Goals: *The City and MWRDGC will continue to enforce the Ordinance.*

The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD and the City.

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures and C.5 Illicit Source Removal Procedures

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

The City has developed procedures for investigating reports of illicit discharges and prepared forms to document these reports.

C.6 Program Evaluation and Assessment

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

The City has performed yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

C.10Other Illicit Discharge Controls

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

The City has performed annual monitoring of the receiving streams upstream and downstream of the MS4 discharges to determine the effectiveness of the program and selected BMPs.

4. Construction Site Runoff Control

The City committed to performing activities and services related to the Construction Site Runoff Control minimum control measure under BMP numbers D.1, D.2 and D.4. The status or progress for each of the measurable goals related to these BMPs is presented below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures

Measurable Goal: *The City will continue the review and inspection procedures.*

The City will continue the procedures to require sediment and erosion measures.

5. Post-Construction Runoff Control

The City committed to performing activities and services related to the Post-Construction Site Runoff Control minimum control measure under BMP number E.4. The status or progress for each of the measurable goals related to this BMP is presented below.

E.4 Pre-Construction Review of BMP Designs

Measurable Goal: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

The City will continue the plan and review procedures that include the review and inspection of stormwater BMPs.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City committed to perform activities for BMP numbers F.1 and F.3. The status or progress for each of the measurable goals related to these BMPs is presented below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control

Measurable Goals: *The City will continue with in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.* .

The City will continue in-house training and modify procedures as necessary to prevent the discharge of pollutants to the storm sewer system by City employees.

F.2 Inspection and Maintenance Program

The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

The City will continue the inspection program and will utilize the inspection forms to document these activities.

Part C. Information and Data Collection Results

(Provide information and water quality sampling/monitoring data related to illicit discharge detection and elimination collected during the reporting period.)

Year 11 activities related to illicit discharge detection and elimination consisted primarily of program planning efforts. Therefore, no information or data was collected during this period.

Part D. Summary of Year 12 Stormwater Activities

(Present a summary of the storm water activities you plan to undertake during the next reporting cycle, including an implementation schedule in the sections following the table.)

The table shown below summarizes the BMPs committed to for Year 12. Specific BMPs and measurable goals for Year 12 program development activities are presented in the sections following the table.

Note: X indicates BMPs committed to for Year 12.

Year 12	
MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
X	A.3 Public Service Announcement
	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
X	B.2 Educational Volunteer
	B.3 Stakeholder Meeting
	B.4 Public Hearing
X	B.5 Volunteer Monitoring
X	B.6 Program Coordination
X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 12	
MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

1. Public Education and Outreach

The City is committing to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City commits to implementation of BMPs related to A.1, A.3, and A.6 as described below.

A.1 Distributed Paper Material
The City will make available informational brochures to the public to increase awareness of impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in stormwater runoff.

Measurable Goals: *The City will make the informational material and brochures available at the Public Works Department and City Hall.*

A.3 Public Service Announcement
The City will include a stormwater and/or water quality related article once a year in the City's newsletter.

Measurable Goals: *The City will include a stormwater and/or water quality related article once a year in the City's newsletter.*

A.6 Other Public Education
The City will create a website link on the City website to the public to increase awareness of impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. The City will also post their NOI on the City website.

Measurable Goals: *The City will post and monitor website link(s) and update as new information becomes available.*

2. Public Participation/Involvement

The City will perform activities and services related to the Public Participation/Involvement minimum control measure. BMPs will be implemented under BMP numbers B.2, B.5, B.6 and B.7 as described below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
The ACRCD will provide organization, supplies and/or training to local schools, businesses or civic groups for water quality and stream enhancement activities.

Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

B.7 Other Public Involvement
The City will create a Citizens Report Form or similar method on the City website that includes reporting illicit discharges to the storm sewer system and maintenance problems associated with ponds, streams, or outfalls.

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. The City will continue to address problems in a timely manner.*

3. Illicit Discharge Detection and Elimination

The City commits to performing some activities related to the Illicit Discharge Detection and Elimination minimum control. BMPs will be implemented under BMP numbers C.1, C.2, C.3, C.4 and C.5 as described below.

C.1 Storm Sewer Map Preparation
The City will prepare a storm sewer map of the entire City including the names of all outfalls and receiving streams.

Measurable Goals: *The City will update the storm sewer map to reflect new and re-development.*

C.2 Regulatory Control Program
The City and MWRD will continue to enforce the MWRD ordinance that prohibits non-stormwater discharges to any storm sewer within the City or under the jurisdiction of the MWRD.

Measurable Goals: *The City and MWRD will enforce the Ordinance.*

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures, and C.5 Illicit Source Removal Procedures
The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City developed procedures for tracking reports of illicit discharges and enforcement guidelines to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

C.6 Program Evaluation and Assessment
The City will perform yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

C.10Other Illicit Discharge Controls
The City will perform annual monitoring of the receiving streams upstream and downstream of the MS4 discharges.

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

4. Construction Site Runoff Control

The City will perform activities and services related to the Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers D.1, D.2, D.4 and D.6 as described below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures, D.6 Site Inspection/Enforcement Procedures
The City has a regulatory control program that requires sediment and erosion control measures for all developments over 1 acre within the City. The City requires that these measures be submitted to the City during the Site Plan Review Procedures and provides resources on sediment and erosion control BMPs. The City also performs inspections on development sites during construction to verify compliance with the development plans and local codes and procedures. In addition, the City will continue to update the Ordinance and Public Works procedures to meet the NPDES requirements.

Measurable Goal: *The City will continue the review and inspection procedures.*

5. Post-Construction Runoff Control

The City will perform activities and services related to the Post-Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP number E.2, E.4, E.5, and E.6 as described below.

E.2 Regulatory Control Program, E.4 Pre-Construction Review of BMP Designs, E.5 Site Inspections During Construction, E.6 Post Construction Inspections

The City Engineer's regulatory control program for post construction runoff control includes site development plan review procedures to specifically evaluate structural and nonstructural stormwater BMPs and inspection of the site during and after construction to verify compliance with the approved plans and NPDES requirements. The program also includes guidelines for enforcement procedures to make sure developments comply with local codes and ordinances.

Measurable Goals: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City will perform BMPs under BMP numbers F.1 and F.3 as described below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control

The City will hand out literature and/or provide in-house presentations that provide guidance and procedures for employees to reduce or eliminate the discharge of pollutants from City owned facilities to the storm sewer system. The goal of this BMP will be to educate City employees of current practices that contribute to stormwater pollution and/or to develop new procedures and make revisions to existing procedures that will curtail the discharge of pollutants to storm sewer systems by City employees.

Measurable Goals: *The City will continue in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.*

F.2 Inspection and Maintenance Program

The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

Part E. Notice of Qualifying Local Program

The City of Northlake Municipal Code (Code), Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the Addison Creek River Conservancy District (ACRCD), and the City of Northlake Public Works Department are considered Qualifying Local Programs (QLPs) that count towards satisfying the requirements of the six minimum control measures. Listed below is a summary of the activities performed by the QLPs during Year 11. In general, all activities performed by the QLPs during Year 11 will be continued in subsequent years.

1. Public Education and Outreach:
The City does not currently have a qualifying local program for public education and outreach.

2. Public Participation/Involvement:
The ACRCD governs the preservation and maitnenance of Addison Creek and holds monthly public meetings to discuss activities and issues related to the Creek. This program relates to BMP numbers B.1, B.3, and B.4.

3. Illicit Discharge Detection and Elimination:
The MWRDGC Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD. Additionally, the City of Northlake Municipal Code places restrictions on the type and composition of substances that may be discharged to any natural outlets, waters, or storm sewers within the City. These programs relate to BMP C.2.

4. Construction Site Runoff Control:
The City has a soil erosion and sediment control program that requires erosion control plans to be included in all plan submittals and inspection of construction sites to ensure compliance with approved design and standards. This program relates to BMP numbers D.1, D.4 and D.6.

5. Post-Construction Runoff Control:

The City of Northlake Municipal Code has provisions to address the quality of stormwater runoff, as well as standards to ensure the long-term operation and maintenance of stormwater facilities. The City also has a soil erosion and sediment control program that requires the inspection of construction sites to ensure compliance with approved design and standards. This relates to BMP numbers E.2, E.3, E.5 and E.6.

6. Pollution Prevention/Good Housekeeping:
The City of Northlake Municipal Code has standards aimed at reducing the amount of pollutants discharged into the stormsewer system and promoting regular maintenance and long-term operation of stormsewer systems within the City. The City requires all privately owned drainage systems be subjected to inspection not less than once a year with reports to be filed detailing inpection results and any deficiencies found. The Ordinance also requires all pet owners to be responsible for the removal and sanitary disposal of all animal waste in the City. This relates to BMP numbers F.2 and F.6.

Part F. Construction Projects Conducted During Year 11

(Provide a list of construction projects your entity has paid for during the reporting period.)

There were no projects over 1 acre funded by the City during Year 11.

Year 10

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.

REPORT PERIOD:	FROM: MARCH 2012	TO: MARCH 2013

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

NAME: City of Northlake	TELEPHONE NUMBER: 708-343-8700	
MAILING ADDRESS: 55 E. North Avenue		
CITY: Northlake	STATE: IL	ZIP: 60164
CONTACT PERSON: Jeffrey Sherwin (Person responsible for Annual Report)		

NAME(S) OF GOVERNMENTAL ENTITY(IES) IN WHICH MS4 IS LOCATED: (As it appears on the current permit)

Cook County	

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	☐	4. Construction Site Runoff Control	☐
2. Public Participation/Involvement	☐	5. Post-Construction Runoff Control	☐
3. Illicit Discharge Detection & Elimination	☒	6. Pollution Prevention/Good Housekeeping	☐

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 28, 2013

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.

IL 532 2585
WPC 691 JANUARY-2003

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Part A. Changes to Best Management Practices

Note: X indicates BMPs performed that were proposed in your NPDES permit
✓ indicates changes to BMPs proposed in your NPDES permit

Year 6	Year 7	Year 8	Year 9	Year 10		
MS4						
A. Public Education and Outreach						
X	X	X	X	X	A.1	Distributed Paper Material
					A.2	Speaking Engagement
X	X	X	X	X	A.3	Public Service Announcement
					A.4	Community Event
					A.5	Classroom Education Material
X	X	X	X	X	A.6	Other Public Education
B. Public Participation/Involvement						
					B.1	Public Panel
X	X	X	X	X	B.2	Educational Volunteer
					B.3	Stakeholder Meeting
					B.4	Public Hearing
X	X	X	X	X	B.5	Volunteer Monitoring
X	X	X	X	X	B.6	Program Coordination
X	X	X	X	X	B.7	Other Public Involvement
C. Illicit Discharge Detection and Elimination						
X	X	X	X	X	C.1	Storm Sewer Map Preparation
X	X	X	X	X	C.2	Regulatory Control Program
X	X	X	X	X	C.3	Detection/Elimination Prioritization Plan
X	X	X	X	X	C.4	Illicit Discharge Tracing Procedures
X	X	X	X	X	C.5	Illicit Source Removal Procedures
✓	✓	✓	✓	✓	C.6	Program Evaluation and Assessment
					C.7	Visual Dry Weather Screening
					C.8	Pollutant Field Testing
					C.9	Public Notification
✓	✓	✓	✓	✓	C.10	Other Illicit Discharge Controls

Year 6	Year 7	Year 8	Year 9	Year 10		
MS4						
D. Construction Site Runoff Control						
X	X	X	X	X	D.1	Regulatory Control Program
X	X	X	X	X	D.2	Erosion and Sediment Control BMPs
					D.3	Other Waste Control Program
X	X	X	X	X	D.4	Site Plan Review Procedures
					D.5	Public Information Handling Procedures
					D.6	Site Inspection/Enforcement Procedures
					D.7	Other Construction Site Runoff Controls
E. Post-Construction Runoff Control						
					E.1	Community Control Strategy
					E.2	Regulatory Control Program
					E.3	Long Term O&M Procedures
X	X	X	X	X	E.4	Pre-Const Review of BMP Designs
					E.5	Site Inspections During Construction
					E.6	Post-Construction Inspections
					E.7	Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping						
X	X	X	X	X	F.1	Employee Training Program
					F.2	Inspection and Maintenance Program
X	X	X	X	X	F.3	Municipal Operations Storm Water Control
					F.4	Municipal Operations Waste Disposal
					F.5	Flood Management/Assess Guidelines
					F.6	Other Municipal Operations Controls

Part B. Status of Compliance with Permit Conditions

(Provide 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 maximum extent practicable [MEP], and your identified measurable goals for each of the minimum control measures.)

The status of BMPs and measurable goals performed in Year 10 are described below.

1. Public Education and Outreach

The City of Northlake (City) committed to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City committed to implementation of BMPs related to A.1, A.3, and A.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

A.1 Distributed Paper Material
Measurable Goals: *Make informational material and brochures available to the public.*

The City has obtained informational brochures related to stormwater education and water quality and made them available for distribution.

A.3 Public Service Announcement
Measurable Goals: *The City will include a stormwater and\or water quality related article in the City newsletter once a year.*

The City has obtained several articles related to stormwater/water quality and included a stormwater or water quality article in the City newsletter.

A.6 Other Public Education
Measurable Goals: *The City will monitor website links and update as new information becomes available.*

The City has obtained informational website links and will post at least one on the City website by the end of the permit year.

2. Public Participation/Involvement

The City committed to performing activities and services related to the Public Participation/Involvement minimum control measure under BMP numbers B.2, B.5, B.6 and B.7. The status or progress for each of the measurable goals related to these BMPs is presented below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

The City will continue to support and work with the ACRCD on water quality and stream enhancement activities.

B.7 Other Public Involvement

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. They City will continue to address problems with in a timely manner.*

The City has developed posted contact information on the City website to allow residents to report possible illicit discharges and/or stormwater maintenance problems. The City will work to provide a Citizens Report form or direct link to the Public Works Department during the next permit year.

3. Illicit Discharge Detection and Elimination

The City committed to perform some activities related to the Illicit Discharge Detection and Elimination minimum control under BMP numbers C.1, C.2, C.3, C.4 and C.5. The status or progress for each of the measurable goals related to these BMPs is presented below.

C.1 Storm Sewer Map Preparation

Measurable Goals: *The City will continue to update the storm sewer map to reflect new and re-development.*

The City has completed a storm sewer map of the City showing the location of all outfalls and receiving waters.

C.2 Regulatory Control Program

Measurable Goals: *The City and MWRDGC will continue to enforce the Ordinance.*

The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD and the City.

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures and C.5 Illicit Source Removal Procedures

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

The City has developed procedures for investigating reports of illicit discharges and prepared forms to document these reports.

C.6 Program Evaluation and Assessment

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

The City has performed yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

C.10Other Illicit Discharge Controls

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

The City has performed annual monitoring of the receiving streams upstream and downstream of the MS4 discharges to determine the effectiveness of the program and selected BMPs.

4. Construction Site Runoff Control

The City committed to performing activities and services related to the Construction Site Runoff Control minimum control measure under BMP numbers D.1, D.2 and D.4. The status or progress for each of the measurable goals related to these BMPs is presented below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures

Measurable Goal: *The City will continue the review and inspection procedures.*

The City will continue the procedures to require sediment and erosion measures.

5. Post-Construction Runoff Control

The City committed to performing activities and services related to the Post-Construction Site Runoff Control minimum control measure under BMP number E.4. The status or progress for each of the measurable goals related to this BMP is presented below.

E.4 Pre-Construction Review of BMP Designs

Measurable Goal: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

The City will continue the plan and review procedures that include the review and inspection of stormwater BMPs.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City committed to perform activities for BMP numbers F.1 and F.3. The status or progress for each of the measurable goals related to these BMPs is presented below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control

Measurable Goals: *The City will continue with in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.* .

The City will continue in-house training and modify procedures as necessary to prevent the discharge of pollutants to the storm sewer system by City employees.

F.2 Inspection and Maintenance Program

The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

The City will continue the inspection program and will utilize the inspection forms to document these activities.

Part C. Information and Data Collection Results

(Provide information and water quality sampling/monitoring data related to illicit discharge detection and elimination collected during the reporting period.)

Year 10 activities related to illicit discharge detection and elimination consisted primarily of program planning efforts. Therefore, no information or data was collected during this period.

Part D. Summary of Year 11 Stormwater Activities

(Present a summary of the storm water activities you plan to undertake during the next reporting cycle, including an implementation schedule in the sections following the table.)

The table shown below summarizes the BMPs committed to for Year 11. Specific BMPs and measurable goals for Year 11 program development activities are presented in the sections following the table.

Note: X indicates BMPs committed to for Year 11.

Year 11	
MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
X	A.3 Public Service Announcement
	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
X	B.2 Educational Volunteer
	B.3 Stakeholder Meeting
	B.4 Public Hearing
X	B.5 Volunteer Monitoring
X	B.6 Program Coordination
X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 11	
MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

1. Public Education and Outreach

The City is committing to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City commits to implementation of BMPs related to A.1, A.3, and A.6 as described below.

A.1 Distributed Paper Material
The City will make available informational brochures to the public to increase awareness of impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in stormwater runoff.

Measurable Goals: *The City will make the informational material and brochures available at the Public Works Department and City Hall.*

A.3 Public Service Announcement
The City will include a stormwater and/or water quality related article once a year in the City's newsletter.

Measurable Goals: *The City will include a stormwater and/or water quality related article once a year in the City's newsletter.*

A.6 Other Public Education
The City will create a website link on the City website to the public to increase awareness of impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. The City will also post their NOI on the City website.

Measurable Goals: *The City will post and monitor website link(s) and update as new information becomes available.*

2. Public Participation/Involvement

The City will perform activities and services related to the Public Participation/Involvement minimum control measure. BMPs will be implemented under BMP numbers B.2, B.5, B.6 and B.7 as described below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
The ACRCD will provide organization, supplies and/or training to local schools, businesses or civic groups for water quality and stream enhancement activities.

Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

B.7 Other Public Involvement
The City will create a Citizens Report Form or similar method on the City website that includes reporting illicit discharges to the storm sewer system and maintenance problems associated with ponds, streams, or outfalls.

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. The City will continue to address problems in a timely manner.*

3. Illicit Discharge Detection and Elimination

The City commits to performing some activities related to the Illicit Discharge Detection and Elimination minimum control. BMPs will be implemented under BMP numbers C.1, C.2, C.3, C.4 and C.5 as described below.

C.1 Storm Sewer Map Preparation
The City will prepare a storm sewer map of the entire City including the names of all outfalls and receiving streams.

Measurable Goals: *The City will update the storm sewer map to reflect new and re-development.*

C.2 Regulatory Control Program
The City and MWRD will continue to enforce the MWRD ordinance that prohibits non-stormwater discharges to any storm sewer within the City or under the jurisdiction of the MWRD.

Measurable Goals: *The City and MWRD will enforce the Ordinance.*

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures, and C.5 Illicit Source Removal Procedures
The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City developed procedures for tracking reports of illicit discharges and enforcement guidelines to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

C.6 Program Evaluation and Assessment
The City will perform yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

C.10Other Illicit Discharge Controls
The City will perform annual monitoring of the receiving streams upstream and downstream of the MS4 discharges.

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

4. Construction Site Runoff Control

The City will perform activities and services related to the Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers D.1, D.2, D.4 and D.6 as described below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures, D.6 Site Inspection/Enforcement Procedures
The City has a regulatory control program that requires sediment and erosion control measures for all developments over 1 acre within the City. The City requires that these measures be submitted to the City during the Site Plan Review Procedures and provides resources on sediment and erosion control BMPs. The City also performs inspections on development sites during construction to verify compliance with the development plans and local codes and procedures. In addition, the City will continue to update the Ordinance and Public Works procedures to meet the NPDES requirements.

Measurable Goal: *The City will continue the review and inspection procedures.*

5. Post-Construction Runoff Control

The City will perform activities and services related to the Post-Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP number E.2, E.4, E.5, and E.6 as described below.

E.2 Regulatory Control Program, E.4 Pre-Construction Review of BMP Designs, E.5 Site Inspections During Construction, E.6 Post Construction Inspections

The City Engineer's regulatory control program for post construction runoff control includes site development plan review procedures to specifically evaluate structural and nonstructural stormwater BMPs and inspection of the site during and after construction to verify compliance with the approved plans and NPDES requirements. The program also includes guidelines for enforcement procedures to make sure developments comply with local codes and ordinances.

Measurable Goals: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City will perform BMPs under BMP numbers F.1 and F.3 as described below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control

The City will hand out literature and/or provide in-house presentations that provide guidance and procedures for employees to reduce or eliminate the discharge of pollutants from City owned facilities to the storm sewer system. The goal of this BMP will be to educate City employees of current practices that contribute to stormwater pollution and/or to develop new procedures and make revisions to existing procedures that will curtail the discharge of pollutants to storm sewer systems by City employees.

Measurable Goals: *The City will continue in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.*

F.2 Inspection and Maintenance Program

The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

Part E. Notice of Qualifying Local Program

The City of Northlake Municipal Code (Code), Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the Addison Creek River Conservancy District (ACRCD), and the City of Northlake Public Works Department are considered Qualifying Local Programs (QLPs) that count towards satisfying the requirements of the six minimum control measures. Listed below is a summary of the activities performed by the QLPs during Year 10. In general, all activities performed by the QLPs during Year 10 will be continued in subsequent years.

1. Public Education and Outreach:
The City does not currently have a qualifying local program for public education and outreach.

2. Public Participation/Involvement:
The ACRCD governs the preservation and maitnenance of Addison Creek and holds monthly public meetings to discuss activities and issues related to the Creek. This program relates to BMP numbers B.1, B.3, and B.4.

3. Illicit Discharge Detection and Elimination:
The MWRDGC Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD. Additionally, the City of Northlake Municipal Code places restrictions on the type and composition of substances that may be discharged to any natural outlets, waters, or storm sewers within the City. These programs relate to BMP C.2.

4. Construction Site Runoff Control:
The City has a soil erosion and sediment control program that requires erosion control plans to be included in all plan submittals and inspection of construction sites to ensure compliance with approved design and standards. This program relates to BMP numbers D.1, D.4 and D.6.

5. Post-Construction Runoff Control:

The City of Northlake Municipal Code has provisions to address the quality of stormwater runoff, as well as standards to ensure the long-term operation and maintenance of stormwater facilities. The City also has a soil erosion and sediment control program that requires the inspection of construction sites to ensure compliance with approved design and standards. This relates to BMP numbers E.2, E.3, E.5 and E.6.

6. Pollution Prevention/Good Housekeeping:
The City of Northlake Municipal Code has standards aimed at reducing the amount of pollutants discharged into the stormsewer system and promoting regular maintenance and long-term operation of stormsewer systems within the City. The City requires all privately owned drainage systems be subjected to inspection not less than once a year with reports to be filed detailing inpection results and any deficiencies found. The Ordinance also requires all pet owners to be responsible for the removal and sanitary disposal of all animal waste in the City. This relates to BMP numbers F.2 and F.6.

Part F. Construction Projects Conducted During Year 10

(Provide a list of construction projects your entity has paid for during the reporting period.)

There were no projects over 1 acre funded by the City during Year 10.

Year 9

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.

REPORT PERIOD:	FROM: MARCH 2011	TO: MARCH 2012

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

NAME: City of Northlake		TELEPHONE NUMBER: 708-343-8700
MAILING ADDRESS: 55 E. North Avenue		
CITY: Northlake	STATE: IL	ZIP: 60164
CONTACT PERSON: Jeffrey Sherwin (Person responsible for Annual Report)		

NAME(S) OF GOVERNMENTAL ENTITY(IES) IN WHICH MS4 IS LOCATED: (As it appears on the current permit)

Cook County	

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	☐	4. Construction Site Runoff Control	☐
2. Public Participation/Involvement	☐	5. Post-Construction Runoff Control	☐
3. Illicit Discharge Detection & Elimination	☒	6. Pollution Prevention/Good Housekeeping	☐

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 29, 2012

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.

IL 532 2585
WPC 691 JANUARY-2003

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Part A. Changes to Best Management Practices

Note: X indicates BMPs performed that were proposed in your NPDES permit
✓ indicates changes to BMPs proposed in your NPDES permit

Year 6	Year 7	Year 8	Year 9	Year 10	
MS4					
A. Public Education and Outreach					
X	X	X	X		A.1 Distributed Paper Material
					A.2 Speaking Engagement
X	X	X	X		A.3 Public Service Announcement
					A.4 Community Event
					A.5 Classroom Education Material
X	X	X	X		A.6 Other Public Education
B. Public Participation/Involvement					
					B.1 Public Panel
X	X	X	X		B.2 Educational Volunteer
					B.3 Stakeholder Meeting
					B.4 Public Hearing
X	X	X	X		B.5 Volunteer Monitoring
X	X	X	X		B.6 Program Coordination
X	X	X	X		B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination					
X	X	X	X		C.1 Storm Sewer Map Preparation
X	X	X	X		C.2 Regulatory Control Program
X	X	X	X		C.3 Detection/Elimination Prioritization Plan
X	X	X	X		C.4 Illicit Discharge Tracing Procedures
X	X	X	X		C.5 Illicit Source Removal Procedures
✓	✓	✓	✓		C.6 Program Evaluation and Assessment
					C.7 Visual Dry Weather Screening
					C.8 Pollutant Field Testing
					C.9 Public Notification
✓	✓	✓	✓		C.10 Other Illicit Discharge Controls

Year 6	Year 7	Year 8	Year 9	Year 10	
MS4					
D. Construction Site Runoff Control					
X	X	X	X		D.1 Regulatory Control Program
X	X	X	X		D.2 Erosion and Sediment Control BMPs
					D.3 Other Waste Control Program
X	X	X	X		D.4 Site Plan Review Procedures
					D.5 Public Information Handling Procedures
					D.6 Site Inspection/Enforcement Procedures
					D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control					
					E.1 Community Control Strategy
					E.2 Regulatory Control Program
					E.3 Long Term O&M Procedures
X	X	X	X		E.4 Pre-Const Review of BMP Designs
					E.5 Site Inspections During Construction
					E.6 Post-Construction Inspections
					E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping					
X	X	X	X		F.1 Employee Training Program
					F.2 Inspection and Maintenance Program
X	X	X	X		F.3 Municipal Operations Storm Water Control
					F.4 Municipal Operations Waste Disposal
					F.5 Flood Management/Assess Guidelines
					F.6 Other Municipal Operations Controls

Part B. Status of Compliance with Permit Conditions

(Provide 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 maximum extent practicable [MEP], and your identified measurable goals for each of the minimum control measures.)

The status of BMPs and measurable goals performed in Year 9 are described below.

1. Public Education and Outreach

The City of Northlake (City) committed to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City committed to implementation of BMPs related to A.1, A.3, and A.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

A.1 Distributed Paper Material
Measurable Goals: *Make informational material and brochures available to the public.*

The City has obtained informational brochures related to stormwater education and water quality and made them available for distribution.

A.3 Public Service Announcement
Measurable Goals: *The City will include a stormwater and\or water quality related article in the City newsletter once a year.*

The City has obtained several articles related to stormwater/water quality and included a stormwater or water quality article in the City newsletter.

A.6 Other Public Education
Measurable Goals: *The City will monitor website links and update as new information becomes available.*

The City has obtained informational website links and will post at least one on the City website by the end of the permit year.

2. Public Participation/Involvement

The City committed to performing activities and services related to the Public Participation/Involvement minimum control measure under BMP numbers B.2, B.5, B.6 and B.7. The status or progress for each of the measurable goals related to these BMPs is presented below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

The City will continue to support and work with the ACRCD on water quality and stream enhancement activities.

B.7 Other Public Involvement

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. They City will continue to address problems with in a timely manner.*

The City has developed posted contact information on the City website to allow residents to report possible illicit discharges and/or stormwater maintenance problems. The City will work to provide a Citizens Report form or direct link to the Public Works Department during the next permit year.

3. Illicit Discharge Detection and Elimination

The City committed to perform some activities related to the Illicit Discharge Detection and Elimination minimum control under BMP numbers C.1, C.2, C.3, C.4 and C.5. The status or progress for each of the measurable goals related to these BMPs is presented below.

C.1 Storm Sewer Map Preparation

Measurable Goals: *The City will continue to update the storm sewer map to reflect new and re-development.*

The City has completed a storm sewer map of the City showing the location of all outfalls and receiving waters.

C.2 Regulatory Control Program

Measurable Goals: *The City and MWRDGC will continue to enforce the Ordinance.*

The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD and the City.

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures and C.5 Illicit Source Removal Procedures

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

The City has developed procedures for investigating reports of illicit discharges and prepared forms to document these reports.

C.6 Program Evaluation and Assessment

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

The City has performed yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

C.10Other Illicit Discharge Controls

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

The City has performed annual monitoring of the receiving streams upstream and downstream of the MS4 discharges to determine the effectiveness of the program and selected BMPs.

4. Construction Site Runoff Control

The City committed to performing activities and services related to the Construction Site Runoff Control minimum control measure under BMP numbers D.1, D.2 and D.4. The status or progress for each of the measurable goals related to these BMPs is presented below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures

Measurable Goal: *The City will continue the review and inspection procedures.*

The City will continue the procedures to require sediment and erosion measures.

5. Post-Construction Runoff Control

The City committed to performing activities and services related to the Post-Construction Site Runoff Control minimum control measure under BMP number E.4. The status or progress for each of the measurable goals related to this BMP is presented below.

E.4 Pre-Construction Review of BMP Designs

Measurable Goal: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

The City will continue the plan and review procedures that include the review and inspection of stormwater BMPs.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City committed to perform activities for BMP numbers F.1 and F.3. The status or progress for each of the measurable goals related to these BMPs is presented below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control

Measurable Goals: *The City will continue with in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.*

The City will continue in-house training and modify procedures as necessary to prevent the discharge of pollutants to the storm sewer system by City employees.

F.2 Inspection and Maintenance Program

The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

The City will continue the inspection program and will utilize the inspection forms to document these activities.

Part C. Information and Data Collection Results

(Provide information and water quality sampling/monitoring data related to illicit discharge detection and elimination collected during the reporting period.)

Year 9 activities related to illicit discharge detection and elimination consisted primarily of program planning efforts. Therefore, no information or data was collected during this period.

Part D. Summary of Year 10 Stormwater Activities

(Present a summary of the storm water activities you plan to undertake during the next reporting cycle, including an implementation schedule in the sections following the table.)

The table shown below summarizes the BMPs committed to for Year 10. Specific BMPs and measurable goals for Year 10 program development activities are presented in the sections following the table.

Note: X indicates BMPs committed to for Year 10.

Year 10		
MS4		
A. Public Education and Outreach		
X	A.1	Distributed Paper Material
	A.2	Speaking Engagement
X	A.3	Public Service Announcement
	A.4	Community Event
	A.5	Classroom Education Material
X	A.6	Other Public Education
B. Public Participation/Involvement		
	B.1	Public Panel
X	B.2	Educational Volunteer
	B.3	Stakeholder Meeting
	B.4	Public Hearing
X	B.5	Volunteer Monitoring
X	B.6	Program Coordination
X	B.7	Other Public Involvement
C. Illicit Discharge Detection and Elimination		
X	C.1	Storm Sewer Map Preparation
X	C.2	Regulatory Control Program
X	C.3	Detection/Elimination Prioritization Plan
X	C.4	Illicit Discharge Tracing Procedures
X	C.5	Illicit Source Removal Procedures
X	C.6	Program Evaluation and Assessment
	C.7	Visual Dry Weather Screening
	C.8	Pollutant Field Testing
	C.9	Public Notification
X	C.10	Other Illicit Discharge Controls

Year 10		
MS4		
D. Construction Site Runoff Control		
X	D.1	Regulatory Control Program
X	D.2	Erosion and Sediment Control BMPs
	D.3	Other Waste Control Program
X	D.4	Site Plan Review Procedures
	D.5	Public Information Handling Procedures
X	D.6	Site Inspection/Enforcement Procedures
	D.7	Other Construction Site Runoff Controls
E. Post-Construction Runoff Control		
	E.1	Community Control Strategy
X	E.2	Regulatory Control Program
	E.3	Long Term O&M Procedures
X	E.4	Pre-Const Review of BMP Designs
X	E.5	Site Inspections During Construction
X	E.6	Post-Construction Inspections
	E.7	Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping		
X	F.1	Employee Training Program
X	F.2	Inspection and Maintenance Program
X	F.3	Municipal Operations Storm Water Control
	F.4	Municipal Operations Waste Disposal
	F.5	Flood Management/Assess Guidelines
	F.6	Other Municipal Operations Controls

1. Public Education and Outreach

The City is committing to conduct Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The City commits to implementation of BMPs related to A.1, A.3, and A.6 as described below.

A.1 Distributed Paper Material
The City will make available informational brochures to the public to increase awareness of impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in stormwater runoff.

Measurable Goals: *The City will make the informational material and brochures available at the Public Works Department and City Hall.*

A.3 Public Service Announcement
The City will include a stormwater and/or water quality related article once a year in the City's newsletter.

Measurable Goals: *The City will include a stormwater and/or water quality related article once a year in the City's newsletter.*

A.6 Other Public Education
The City will create a website link on the City website to the public to increase awareness of impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. The City will also post their NOI on the City website.

Measurable Goals: *The City will post and monitor website link(s) and update as new information becomes available.*

2. Public Participation/Involvement

The City will perform activities and services related to the Public Participation/Involvement minimum control measure. BMPs will be implemented under BMP numbers B.2, B.5, B.6 and B.7 as described below.

B.2 Educational Volunteer, B.5 Volunteer Monitoring and B.6 Program Coordination
The ACRCD will provide organization, supplies and/or training to local schools, businesses or civic groups for water quality and stream enhancement activities.

Measurable Goals: *The City and the ACRCD will continue to work with participants to identify programs and activities for each school or group.*

B.7 Other Public Involvement
The City will create a Citizens Report Form or similar method on the City website that includes reporting illicit discharges to the storm sewer system and maintenance problems associated with ponds, streams, or outfalls.

Measurable Goals: *The City will post the form or link on the City website and track reports by location and problem. The City will continue to address problems in a timely manner.*

3. Illicit Discharge Detection and Elimination

The City commits to performing some activities related to the Illicit Discharge Detection and Elimination minimum control. BMPs will be implemented under BMP numbers C.1, C.2, C.3, C.4 and C.5 as described below.

C.1 Storm Sewer Map Preparation
The City will prepare a storm sewer map of the entire City including the names of all outfalls and receiving streams.

Measurable Goals: *The City will update the storm sewer map to reflect new and re-development.*

C.2 Regulatory Control Program
The City and MWRD will continue to enforce the MWRD ordinance that prohibits non-stormwater discharges to any storm sewer within the City or under the jurisdiction of the MWRD.

Measurable Goals: *The City and MWRD will enforce the Ordinance.*

C.2 Regulatory Control Program, C.3 Detection/Elimination Prioritization Plan, C.4 Illicit Discharge Tracing Procedures, and C.5 Illicit Source Removal Procedures
The City has procedures for handling the report of a possible illicit discharge to storm sewer systems. The City developed procedures for tracking reports of illicit discharges and enforcement guidelines to facilitate the elimination of illicit discharges once they are discovered, tracked and investigated.

Measurable Goals: *The City will enforce procedures and guidelines for eliminating illicit discharges once they are reported and investigated.*

C.6 Program Evaluation and Assessment
The City will perform yearly program compliance monitoring and evaluation to determine the effectiveness of the overall program and the BMPs selected.

Measurable Goals: *The City will perform a yearly evaluation of its NPDES program and BMPs selected to for effectiveness in meeting the specified goals.*

C.10Other Illicit Discharge Controls
The City will perform annual monitoring of the receiving streams upstream and downstream of the MS4 discharges.

Measurable Goals: *The City perform annual monitoring of the receiving streams upstream and downstream of all MS4 discharge points.*

4. Construction Site Runoff Control

The City will perform activities and services related to the Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers D.1, D.2, D.4 and D.6 as described below.

D.1 Regulatory Control Program, D.2 Erosion and Sediment Control BMPs and D.4 Site Plan Review Procedures, D.6 Site Inspection/Enforcement Procedures
The City has a regulatory control program that requires sediment and erosion control measures for all developments over 1 acre within the City. The City requires that these measures be submitted to the City during the Site Plan Review Procedures and provides resources on sediment and erosion control BMPs. The City also performs inspections on development sites during construction to verify compliance with the development plans and local codes and procedures. In addition, the City will continue to update the Ordinance and Public Works procedures to meet the NPDES requirements.

Measurable Goal: *The City will continue the review and inspection procedures.*

5. Post-Construction Runoff Control

The City will perform activities and services related to the Post-Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP number E.2, E.4, E.5, and E.6 as described below.

E.2 Regulatory Control Program, E.4 Pre-Construction Review of BMP Designs, E.5 Site Inspections During Construction, E.6 Post Construction Inspections

The City Engineer's regulatory control program for post construction runoff control includes site development plan review procedures to specifically evaluate structural and nonstructural stormwater BMPs and inspection of the site during and after construction to verify compliance with the approved plans and NPDES requirements. The program also includes guidelines for enforcement procedures to make sure developments comply with local codes and ordinances.

Measurable Goals: *The City will continue to review and inspect stormwater BMPs within site development plans and onsite during and after construction.*

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City will perform BMPs under BMP numbers F.1 and F.3 as described below.

F.1 Employee Training Program and F.3 Municipal Operations Storm Water Control

The City will hand out literature and/or provide in-house presentations that provide guidance and procedures for employees to reduce or eliminate the discharge of pollutants from City owned facilities to the storm sewer system. The goal of this BMP will be to educate City employees of current practices that contribute to stormwater pollution and/or to develop new procedures and make revisions to existing procedures that will curtail the discharge of pollutants to storm sewer systems by City employees.

Measurable Goals: *The City will continue in-house training and modify procedures as necessary to curtail the discharge of pollutants to storm sewer systems by City employees.*

F.2 Inspection and Maintenance Program

The Public Works Department procedures require routine inspections of ponds, stream channels and storm sewer outfalls by Public Works staff. Non-routine inspection visits are required to address comments from residents and the Fire Department Hazardous Materials Unit reports. Inspection forms are used for each inspection and these inspections are tracked. The goal of this BMP will be to continue inspections of ponds, streams and outfalls to identify potential maintenance problems or other activities that may contribute to pollutants being added to stormwater runoff.

Measurable Goals: *The Public Works Department will continue the inspection program.*

Part E. Notice of Qualifying Local Program

The City of Northlake Municipal Code (Code), Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the Addison Creek River Conservancy District (ACRCD), and the City of Northlake Public Works Department are considered Qualifying Local Programs (QLPs) that count towards satisfying the requirements of the six minimum control measures. Listed below is a summary of the activities performed by the QLPs during Year 9. In general, all activities performed by the QLPs during Year 9 will be continued in subsequent years.

1. Public Education and Outreach:
The City does not currently have a qualifying local program for public education and outreach.

2. Public Participation/Involvement:
The ACRCD governs the preservation and maitnenance of Addison Creek and holds monthly public meetings to discuss activities and issues related to the Creek. This program relates to BMP numbers B.1, B.3, and B.4.

3. Illicit Discharge Detection and Elimination:
The MWRDGC Sewage and Waste Control Ordinance prohibits the discharge of wastes of any kind to the waters of the state under the jurisdiction of the MWRD. Additionally, the City of Northlake Municipal Code places restrictions on the type and composition of substances that may be discharged to any natural outlets, waters, or storm sewers within the City. These programs relate to BMP C.2.

4. Construction Site Runoff Control:
The City has a soil erosion and sediment control program that requires erosion control plans to be included in all plan submittals and inspection of construction sites to ensure compliance with approved design and standards. This program relates to BMP numbers D.1, D.4 and D.6.

5. Post-Construction Runoff Control:

The City of Northlake Municipal Code has provisions to address the quality of stormwater runoff, as well as standards to ensure the long-term operation and maintenance of stormwater facilities. The City also has a soil erosion and sediment control program that requires the inspection of construction sites to ensure compliance with approved design and standards. This relates to BMP numbers E.2, E.3, E.5 and E.6.

6. Pollution Prevention/Good Housekeeping:
The City of Northlake Municipal Code has standards aimed at reducing the amount of pollutants discharged into the stormsewer system and promoting regular maintenance and long-term operation of stormsewer systems within the City. The City requires all privately owned drainage systems be subjected to inspection not less than once a year with reports to be filed detailing inpection results and any deficiencies found. The Ordinance also requires all pet owners to be responsible for the removal and sanitary disposal of all animal waste in the City. This relates to BMP numbers F.2 and F.6.

Part F. Construction Projects Conducted During Year 9

(Provide a list of construction projects your entity has paid for during the reporting period.)

There were no projects over 1 acre funded by the City during Year 9.

APPENDIX 8

IEPA General NPDES Permit No. ILR40

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR LISA BONNETT, DIRECTOR

217/782-0610

February 10, 2016

Re: General NPDES Permit ILR40 for Discharge from Small Municipal Separate Storm Sewer Systems (MS4)

Dear Permittee:

Enclosed with this letter is the reissued General NPDES Permit ILR40 for the discharge of storm water from small MS4s. Significant changes have been made in the final permit based on comments received by the Agency. Please review the final permit and make any necessary modifications to your storm water management program. The Agency has also provided a list of permit modifications and a summary of responses to comments received by the Agency.

Please note that the Agency will be reviewing the Notice of Intent (NOI) for all NOIs that have been received. If you have not submitted an NOI, you must submit a NOI within 90 days of the effective date of the permit. A separate permit coverage letter will be sent by the Agency to persons who have submitted a complete NOI after review of the NOI.

Should you have any questions or comments regarding this letter, please contact Melissa Parrott or Cathy Demeroukas of my staff at (217) 782-0610 or at the above address.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:16020801bah/MS4 NOI Letter

4302 N. Main St., Rockford, IL 61103 (815) 987-7760
595 S. State, Elgin, IL 60123 (847) 608-3131
2125 S. First St., Champaign, IL 61820 (217) 278-5800
2009 Mall St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000
412 SW Washington St., Suite D, Peoria, IL 61602 (309) 671-3022
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph, Suite 10-300, Chicago, IL 60601

PLEASE PRINT ON RECYCLED PAPER

General NPDES Permit No. ILR40

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand East
P.O. Box 19276
Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
For
Discharges from Small Municipal Separate Storm Sewer Systems

Expiration Date: February 28, 2021

Issue Date: February 10, 2016

Effective Date: March 1, 2016

In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter 1) and the Clean Water Act, the following discharges may be authorized by this permit in accordance with the conditions herein:

Discharges of only storm water from small municipal separate storm sewer systems (MS4s), as defined and limited herein. Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Receiving waters: Discharges may be authorized to any surface water of the State.

To receive authorization to discharge under this general permit, a facility operator must submit a Notice of Intent (NOI) as described in Part II of this permit to the Illinois Environmental Protection Agency (Illinois EPA). Authorization, if granted, will be by letter and include a copy of this permit.

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

NPDES/Hutton/stormwater/MS4/MSFinal2-9-16.daa

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PART I. COVERAGE UNDER GENERAL PERMIT ILR40

A. Permit Area

This permit covers all areas of the State of Illinois.

B. Eligibility

1. This permit authorizes discharges of storm water from MS4s as defined in 40 CFR 122.26 (b)(16) as designated for permit authorizations pursuant to 40 CFR 122.32.

2. This permit authorizes the following non-storm water discharges provided they have been determined not to be substantial contributors of pollutants to a particular small MS4 applying for coverage under this permit:

   - Water line and fire hydrant flushing,
   - Landscape irrigation water,
   - Rising ground waters,
   - Ground water infiltration,
   - Pumped ground water,
   - Discharges from potable water sources, (excluding wastewater discharges from water supply treatment plants)
   - Foundation drains,
   - Air conditioning condensate,
   - Irrigation water, (except for wastewater irrigation),
   - Springs,
   - Water from crawl space pumps,
   - Footing drains,
   - Storm sewer cleaning water,
   - Water from individual residential car washing,
   - Routine external building washdown which does not use detergents,
   - Flows from riparian habitats and wetlands,
   - Dechlorinated pH neutral swimming pool discharges,
   - Residual street wash water,
   - Discharges or flows from fire fighting activities
   - Dechlorinated water reservoir discharges, and
   - Pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed).

3. Any municipality covered by this general permit is also granted automatic coverage under Permit No. ILR10 for the discharge of storm water associated with construction site activities for municipal construction projects disturbing one acre or more. The permittee is granted automatic coverage 30 days after Agency receipt of a Notice of Intent to Discharge Storm Water from Construction Site Activities from the permittee. The Agency will provide public notification of the construction site activity and assign a unique permit number for each project during this period. The permittee shall comply with all the requirements of Permit ILR10 for all such construction projects.

C. Limitations on Coverage

The following discharges are not authorized by this permit:

1. Storm water discharges that are mixed with non-storm water or storm water associated with industrial activity unless such discharges are:

   a. In compliance with a separate NPDES permit; or

   b. Identified by and in compliance with Part I.B.2 of this permit.

2. Storm water discharges that the Agency determines are not appropriately covered by this general permit. This determination may include discharges identified in Part 1.B.2 or that introduce new or increased pollutant loading that may be a significant contributor of pollutants to the receiving waters.

3. Storm water discharges to any receiving water specified under 35 Ill. Adm. Code 302.105(d) (6).

4. The following non-storm water discharges are prohibited by this permit: concrete and wastewater from washout of concrete (unless managed by an appropriate control), drywall compound, wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials, fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, soaps, solvents, or detergents, toxic or hazardous substances from a spill or other release, or any other pollutant that could cause or tend to cause water pollution.

5. Discharges from dewatering activities (including discharges from dewatering of trenches and excavations) are allowable if managed by appropriate controls as specified in a project's storm water pollution prevention plan, erosion and sediment control plan, or storm water management plan.

D. Obtaining Authorization

In order for storm water discharges from small MS4s to be authorized to discharge under this general permit, a discharger must:

1. Submit a Notice of Intent (NOI) in accordance with the requirements of Part II using an NOI form provided by the Agency (or a photocopy thereof).

2. Submit a new NOI in accordance with Part II within 30 days of a change in the operator or the addition of a new operator.

3. Unless notified by the Agency to the contrary, an MS4 owner submitting a complete NOI in accordance with the requirements of this permit will be authorized to discharge storm water from their small MS4s under the terms and conditions of this permit 30 days after the date that the NOI is received. Authorization will be by letter and include a copy of this permit. The Agency may deny coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the NOI or other information.

PART II. NOTICE OF INTENT (NOI) REQUIREMENTS

A. Deadlines for Notification

1. If an MS4 was automatically designated under 40 CFR 122.32(a)(1) to obtain permit coverage, then you were required to submit an NOI or apply for an individual permit by March 10, 2003.

2. If an MS4 has coverage under the previous general permit for storm water discharges from small MS4s, you must renew your permit coverage under this part. Unless previously submitted for this general permit, you must submit a new NOI within 90 days of the effective date of this reissued general permit for storm water discharges from small MS4s to renew your NPDES permit coverage. The permittee shall comply with any new provisions of this general permit within 180 days of the effective date of this permit and include modifications pursuant to the NPDES permit in its Annual Report.

3. If an MS4 is designated in writing by Illinois EPA under 40 CFR 122.32(a)(2) during the term of this general permit, then you are required to submit an NOI within 180 days of such notice.

4. MS4s are not prohibited from submitting an NOI after established deadlines for NOI submittals. If a late NOI is submitted, your authorization is only for discharges that occur after permit coverage is granted. Illinois EPA reserves the right to take appropriate enforcement actions against MS4s that have not submitted a timely NOI.

B. Contents of Notice of Intent

Dischargers seeking coverage under this permit shall submit the Illinois MS4 NOI form. The NOI shall be signed in accordance with Standard Condition 11 of this permit and shall include all of the following information:

1. The street address, county, and the latitude and longitude of the municipal office for which the notification is submitted;

2. The name, address, and telephone number of the operator(s) filing the NOI for permit coverage and the name, address, telephone number, and email address of the person(s) responsible for implementation and compliance with the MS4 Permit; and

3. The name and segment identification of the receiving water(s), whether any segments(s) is or are listed as impaired on the most recently approved list pursuant to Section 303(d) of the Clean Water Act or any currently applicable Total Maximum Daily Load (TMDL) or alternate water quality study, and the pollutants for which the segment(s) is or are impaired. The most recent 303(d) list may be found at http://www.epa.state.il.us/water/water-quality/index.html. Information regarding TMDLs may be found at http://www.epa.state.il.us/water/tmdl/.

4. The following shall be provided as an attachment to the NOI:

   a. A description of the best management practices (BMPs) to be implemented and the measurable goals for each of the storm water minimum control measures in paragraph IV. B. of this permit designed to reduce the discharge of pollutants to the maximum extent practicable;

   b. The month and year in which you implemented any BMPs of the six minimum control measures, and the month and year in which you will start and fully implement any new minimum control measures or indicate the frequency of the action;

   c. For existing permittees, provide adequate information or justification on any BMPs from previous NOIs that could not be implemented; and

   d. Identification of a local qualifying program, or any partners of the program if any.

5. For existing permittees, certification that states the permittee has implemented necessary BMPs of the six minimum control measures.

C. All required information for the NOI shall be submitted electronically and in writing to the following addresses:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276

epa.ms4noipermit@illinois.gov

D. Shared Responsibilities

Permittees may partner with other MS4s to develop and implement their storm water management program. Each MS4 must fill out the NOI form. MS4s may also jointly submit their individual NOI in coordination with one or more MS4s. The description of their storm water management program must clearly describe which permittees are responsible for implementing each of the control measures. Each permittee is responsible for implementation of best management practices for the Storm Water Management Program within its jurisdiction.

PART III. SPECIAL CONDITIONS

A. The Permittee's discharges, alone or in combination with other sources, shall not cause or contribute to a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

B. If there is evidence indicating that the storm water discharges authorized by this permit cause, or have the reasonable potential to cause or contribute to a violation of water quality standards, you may be required to obtain an individual permit or an alternative general permit or the permit may be modified to include different limitations and/or requirements.

C. If a TMDL allocation or watershed management plan is approved for any water body into which you discharge, you must review your storm water management program to determine whether the TMDL or watershed management plan includes requirements for control of storm water discharges. If you are not meeting the TMDL allocations, you must modify your storm water management program to implement the TMDL or watershed management plan within eighteen months of notification by the Agency of the TMDL or watershed management plan approval. Where a TMDL or watershed management plan is approved, the permittee must:

1. Determine whether the approved TMDL is for a pollutant likely to be found in storm water discharges from your MS4.

2. Determine whether the TMDL includes a pollutant waste load allocation (WLA) or other performance requirements specifically for storm water discharge from your MS4.

3. Determine whether the TMDL addresses a flow regime likely to occur during periods of storm water discharge.

4. After the determinations above have been made and if it is found that your MS4 must implement specific WLA provisions of the TMDL, assess whether the WLAs are being met through implementation of existing storm water control measures or if additional control measures are necessary.

5. Document all control measures currently being implemented or planned to be implemented to comply with TMDL waste load allocation(s). Also include a schedule of implementation for all planned controls. Document the calculations or other evidence that shows that the WLA will be met.

6. Describe and implement a monitoring program to determine whether the storm water controls are adequate to meet the WLA.

7. If the evaluation shows that additional or modified controls are necessary, describe the type and schedule for the control additions/revisions.

8. Continue requirements 4 through 7 above until monitoring from two continuous NPDES permit cycles demonstrate that the WLAs or water quality standards are being met.

9. If an additional individual permit or alternative general permit includes implementation of work pursuant to an approved TMDL or alternate water quality management plan, the provisions of the individual or alternative general permit shall supersede the conditions of Part III.C. TMDL information may be found at http://www.epa.state.il.us/water/tmdl/.

D. If the permittee performs any deicing activities that can cause or contribute to a violation of an applicable State chloride water quality standard, the permittee must participate in any watershed group(s) organized to implement control measures which will reduce the chloride concentration in any receiving stream in the watershed.

E. Authorization: Owners or operators must submit either an NOI in accordance with the requirements of this permit or an application for an individual NPDES Permit to be authorized to discharge under this General Permit. Authorization, if granted will be by letter and include a copy of this Permit. Upon review of an NOI, the Illinois EPA may deny coverage under this permit and require submittal of an application for an individual NPDES permit.

1. Automatic Continuation of Expired General Permit: Except as provided in III.E.2 below, when this General Permit expires the conditions of this permit shall be administratively continued until the earliest of the following:

   a. 150 days after the new General Permit is reissued;

   b. The Permittee submits a Notice of Termination (NOT) and that notice is approved by Illinois EPA;

   c. The Permittee is authorized for coverage under an individual permit or the renewed or reissued General Permit;

   d. The Permittee's application for an individual permit for a discharge or NOI for coverage under the renewed or reissued General Permit is denied by the Illinois EPA; or

   e. Illinois EPA issues a formal permit decision not to renew or reissue this General Permit. This General Permit shall be automatically administratively continued after such formal permit decision.

2. Duty to Reapply:

   a. If the permittee wishes to continue an activity regulated by this General Permit, the permittee must apply for permit coverage before the expiration of the administratively continued period specified in III.E.1 above.

   b. If the permittee reapplies in accordance with the provisions of III.E.2.a above, the conditions of this General Permit shall continue in full force and effect under the provisions of 5 ILCS 100/10-65 until the Illinois EPA makes a final determination on the application or NOI.

   c. Standard Condition 2 of Attachment H is not applicable to this General Permit.

F. The Agency may require any person authorized to discharge by this permit to apply for and obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition the Agency to take action under this paragraph. The Agency may require any owner or operator authorized to discharge under this permit to apply for an individual or alternative general NPDES permit only if the owner or operator has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the owner or operator to file the application, and a statement that on the effective date of the individual NPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. The Agency may grant additional time to submit the application upon request of the applicant. If an owner or operator fails to submit in a timely manner an individual or alternative general NPDES permit application required by the Agency under this paragraph, then the applicability of this permit to the individual or alternative general NPDES permittee is automatically terminated by the date specified for application submittal.

G. Any owner or operator authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application with reasons supporting the request, in accordance with the requirements of 40 CFR 122.28, to the Agency. The request will be granted by issuing an individual permit or an alternative general permit if the reasons cited by the owner are adequate to support the request.

H. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit, or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the issue date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be.

PART IV. STORM WATER MANAGEMENT PROGRAMS

A. Requirements

The permittee must develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from their MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter 1) and the Clean Water Act. The permittee's storm water management program must include the minimum control measures described in section B of this Part. For new permittees, the permittee must develop and implement specific program requirements by the date specified in the Agency's coverage letter. The U.S. Environmental Protection Agency's National Menu of Storm Water Best Management Practices (http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm) and the most recent version of the Illinois Urban Manual should be consulted regarding the selection of appropriate BMPs.

B. Minimum Control Measures

The 6 minimum control measures to be included in the permittee's storm water management program are:

1. Public Education and Outreach on Storm Water Impacts

New permittees shall develop and implement elements of their storm water management program addressing the provisions listed below. Existing permittees renewing coverage under this permit shall maintain their current programs addressing this Minimum Control Measure, updating and enhancing their storm water management programs as necessary to comply with the terms of this section.

a. Distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. The educational materials shall include information on the potential impacts and effects on storm water discharge due to climate change. Information on climate change can be found at http://epa.gov/climatechange/. The permittee shall incorporate the following into its education materials, at a minimum:

i. Information on effective pollution prevention measures to minimize the discharge of pollutants from private property and activities into the storm sewer system, on the following topics:

A. Storage and disposal of fuels, oils and similar materials used in the operation of or leaking from, vehicles and other equipment;
B. Use of soaps, solvents or detergents used in the outdoor washing of vehicles, furniture and other property,
C. Paint and related décor;
D. Lawn and garden care; and
E. Winter de-icing material storage and use.

ii. Information about green infrastructure strategies such as green roofs, rain gardens, rain barrels, bioswales, permeable piping, dry wells, and permeable pavement that mimic natural processes and direct storm water to areas where it can be infiltrated, evaporated or reused.

iii. Information on the benefits and costs of such strategies and provide guidance to the public on how to implement them.

b. Define appropriate BMPs for this minimum control measure and measurable goals for each BMP. These measurable goals must ensure the reduction of all of the pollutants of concern in the permittee's storm water discharges to the maximum extent practicable; and

c. Provide an annual evaluation of public education and outreach BMPs and measurable goals. Report on this evaluation in the Annual Report pursuant to Part V.C.1.

2. Public Involvement/Participation

New permittees shall develop and implement elements of their storm water management program addressing the provisions listed below. Existing permittees renewing coverage under this permit shall maintain their current programs addressing this Minimum Control Measure, updating and enhancing their storm water management programs as necessary to comply with the terms of this section.

a. At a minimum, comply with State and local public notice requirements when implementing a public involvement/ participation program;

b. Define appropriate BMPs for this minimum control measure and measurable goals for each BMP, which must ensure the reduction of all of the pollutants of concern in the permittee's storm water discharges to the maximum extent practicable;

c. Provide a minimum of one public meeting annually for the public to provide input as to the adequacy of the permittee's MS4 program. This requirement may be met in conjunction with or as part of a regular council or board meeting;

d. The permittee shall identify environmental justice areas within its jurisdiction and include appropriate public involvement/participation. Information on environmental justice concerns may be found at http://www.epa.gov/environmentaljustice/. This requirement may be met in conjunction with or as part of a regular council or board meeting; and

e. Provide an annual evaluation of public involvement/participation BMPs and measurable goals. Report on this evaluation in the Annual Report pursuant to Part V.C.1.

3. Illicit Discharge Detection and Elimination

New permittees shall develop and implement elements of their storm water management program addressing the provisions listed below. Existing permittees renewing coverage under this permit shall maintain their current programs addressing this Minimum Control Measure, updating and enhancing their storm water management programs as necessary to comply with the terms of this section.

a. Develop, implement, and enforce a program to detect and eliminate illicit connections or discharges into the permittee's small MS4;

b. Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters that receive discharges from those outfalls. Existing permittees renewing coverage under this permit shall update their storm sewer system map to include any modifications to the sewer system;

c. To the extent allowable under state or local law, prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions, including enforceable requirements for the prompt reporting to the MS4 of all releases, spills and other unpermitted discharges to the separate storm sewer system, and a program to respond to such reports in a timely manner;

d. Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system;

e. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste and the requirements and mechanisms for reporting such discharges;

f. Address the categories of non-storm water discharges listed in Section I.B.2 only if you identify them as significant contributor of pollutants to your small MS4 (discharges or flows from firefighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the United States);

g. Define appropriate BMPs for this minimum control measure and measurable goals for each BMP. These measurable goals must ensure the reduction of all of the pollutants of concern in your storm water discharges to the maximum extent practicable;

h. Conduct periodic inspections of the storm sewer outfalls in dry weather conditions for detection of non-storm water discharges and illegal dumping. The permittee may establish a prioritization plan for inspection of outfalls, placing priority on outfalls with the greatest potential for non-storm water discharges. Major/high priority outfalls shall be inspected at least annually; and

i. Provide an annual evaluation of illicit discharge detection and elimination BMPs and measurable goals. Report on this evaluation in the Annual Report pursuant to Part V.C.1.

4. Construction Site Storm Water Runoff Control

New permittees shall develop and implement elements of their storm water management program addressing the provisions listed below. Existing permittees renewing coverage under this permit shall maintain their current programs addressing this Minimum Control Measure, updating and enhancing their storm water management programs as necessary to comply with the terms of this section.

a. Develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the permittee's small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Control of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more or has been designated by the permitting authority.

At a minimum, the permittee must develop and implement the following:

i. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state or local law;

ii. Erosion and Sediment Controls - The permittee shall ensure that construction activities regulated by the storm water program require the construction site owner/operator to design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed, and maintained to:

A. Control storm water volume and velocity within the site to minimize soil erosion;
B. Control storm water discharges, including both peak flow rates and total storm water volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion;
C. Minimize the amount of soil exposed during construction activity;
D. Minimize the disturbance of steep slopes;
E. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting storm water runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
F. Provide and maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal, and maximize storm water infiltration, unless infeasible; and
G. Minimize soil compaction and preserve topsoil, unless infeasible.

iii. Requirements for construction site operators to control or prohibit non-storm water discharges that would include concrete and wastewater from washout of concrete (unless managed by an appropriate control), drywall compound, wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials, fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, soaps, solvents, or detergents, toxic or hazardous substances from a spill or other release, or any other pollutant that could cause or tend to cause water pollution;

iv. Require all regulated construction sites to have a storm water pollution prevention plan that meets the requirements of Part IV of NPDES permit No. ILR10, including management practices, controls, and other provisions at least as protective as the requirements contained in the Illinois Urban Manual, 2014, or as amended including green infrastructure techniques where appropriate and practicable;

v. Procedures for site plan reviews which incorporate consideration of potential water quality impacts and site plan review of individual pre-construction site plans by the permittee to ensure consistency with local sediment and erosion control requirements;

vi. Procedures for receipt and consideration of information submitted by the public; and

vii. Site inspections and enforcement of ordinance provisions.

b. Define appropriate BMPs for this minimum control measure and measurable goals for each BMP. These measurable goals must ensure the reduction of all of the pollutants of concern in your storm water discharges to the maximum extent practicable.

c. Provide an annual evaluation of construction site storm water control BMPs and measureable goals in the Annual Report pursuant to Part V.C.1.

5. Post-Construction Storm Water Management in New Development and Redevelopment

New permittees shall develop and implement elements of their storm water management program addressing the provisions listed below. Existing permittees renewing coverage under this permit shall maintain their current programs addressing this Minimum Control Measure, updating and enhancing their storm water management programs, as necessary, to comply with the terms of this section.

a. Develop, implement, and enforce a program to address and minimize the volume and pollutant load of storm water runoff from projects for new development and redevelopment that disturb greater than or equal to one acre, projects less than one acre that are part of a larger common plan of development or sale or that have been designated to protect water quality, that discharge into the permittee's small MS4 within the MS4's jurisdictional control. The permittee's program must ensure that appropriate controls are in place that would protect water quality and reduce the discharge of pollutants to the maximum extent practicable. In addition, each permittee shall adopt strategies that incorporate the infiltration, reuse, and evapotranspiration of storm water into the project to the maximum extent practicable. The permittee shall also develop and implement procedures for receipt and consideration of information submitted by the public.

b. Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for all projects within the permittee's jurisdiction for all new development and redevelopment that disturb greater than or equal to1 acre (at a minimum) that will reduce the discharge of pollutants and the volume and velocity of storm water flow to the maximum extent practicable. These strategies shall include effective water quality and watershed protection elements and shall be amenable to modification due to climate change. Information on climate change can be found at http://www.epa.gov/climatechange/. When selecting BMPs to comply with requirements contained in this Part, the permittee shall adopt one or more of the following general strategies, listed in order of preference below. The proposal of a strategy shall include a rationale for not selecting an approach from among those with a higher preference.

   i. Preservation of the natural features of development sites, including natural storage and infiltration characteristics;

   ii. Preservation of existing natural streams, channels, and drainage ways;

   iii. Minimization of new impervious surfaces;

   iv. Conveyance of storm water in open vegetated channels;

   v. Construction of structures that provide both quantity and quality control, with structures serving multiple sites being preferable to those serving individual sites; and

   vi. Construction of structures that provide only quantity control, with structures serving multiple sites being preferable to those serving individual sites.

c. If a permittee requires new or additional approval of any development, redevelopment, linear project construction, replacement or repair on existing developed sites, or other land disturbing activity covered under this Part, the permittee shall require the person responsible for that activity to develop a long term operation and maintenance plan including the adoption of one or more of the strategies identified in Part IV.B.5.b. of this permit.

d. Develop and implement a program to minimize the volume of storm water runoff and pollutants from public highways, streets, roads, parking lots, and sidewalks (public surfaces) through the use of BMPs that alone or in combination result in physical, chemical, or biological pollutant load reduction, increased infiltration, evapotranspiration, and reuse of storm water. The program shall include, but not be limited to the following elements:

   i. Annual Training for all MS4 employees who manage or are directly involved in (or who retain others who manage or are directly involved in) the routine maintenance, repair, or replacement of public surfaces in current green infrastructure or low impact design techniques applicable to such projects; and

   ii. Annual Training for all contractors retained to manage or carry out routine maintenance, repair, or replacement of public surfaces in current green infrastructure or low impact design techniques applicable to such projects. Contractors may provide training to their employees for projects which include green infrastructure or low impact design techniques.

e. Develop and implement a program to minimize the volume of storm water runoff and pollutants from existing privately owned developed property that contributes storm water to the MS4 within the MS4 jurisdictional control. Such program must be documented and may contain the following elements:

   i. Source Identification – Establish an inventory of storm water and pollutants discharged to the MS4;

   ii. Implementation of appropriate BMPs to accomplish the following:

      A. Education on green infrastructure BMPs;
      B. Evaluation of existing flood control techniques to determine the feasibility of pollution control retrofits;
      C. Evaluation of existing flood control techniques to determine potential impacts and effects due to climate change;
      D. Implementation of additional controls for special events expected to generate significant pollution (fairs, parades, performances);
      E. Implementation of appropriate maintenance programs, (including maintenance agreements, for structural pollution control devices or systems);
      F. Management of pesticides and fertilizers; and
      G. Street cleaning in targeted areas.

f. Infiltration practices should not be implemented in any of the following circumstances:

i. Areas/sites where vehicle fueling and/or maintenance occur;

ii. Areas/sites with shallow bedrock which allow movement of pollutants into the groundwater;

iii. Areas/sites near Karst features;

iv. Areas/sites where contaminants in soil or groundwater could be mobilized by infiltration of storm water;

v. Areas/sites within a delineated source water protection area for a public drinking water supply where the potential for an introduction of pollutants into the groundwater exists. Information on groundwater protection may be found at:

http://www.epa.state.il.us/water/groundwater/index.html

vi. Areas/sites within 400 feet of a community water supply well if there is not a wellhead protection delineation area or within 200 feet of a private water supply well. Information on wellhead protection may be found at :

http://www.epa.state.il.us/water/groundwater/index.html

g. Develop and implement an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects, public surfaces, and existing developed property as set forth above to the extent allowable under state or local law.

h. Require all regulated construction sites to have post-construction management plans that meet or exceed the requirements of Part IV.D.2.h of NPDES permit No. ILR10 including management practices, controls, and other provisions at least as protective as the requirements contained in the most recent version of the Illinois Urban Manual, 2014.

i. Ensure adequate long-term operation and maintenance of BMPs.

j. Define appropriate BMPs for this minimum control measure and measurable goals for each BMP. These measurable goals must ensure the reduction of all of the pollutants of concern in your storm water discharges to the maximum extent practicable.

k. Within 3 years of the effective date of the permit, the permittee must develop and implement a process to assess the water quality impacts in the design of all new and existing flood management projects that are associated with the permittee or that discharge to the MS4. This process must include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while still meeting the project objectives. This will also include assessment of any potential impacts and effects on flood management projects due to climate change.

l. Provide an annual evaluation of post-construction storm water management BMPs and measureable goals in the Annual Report pursuant to Part V.C.1 .

6. Pollution Prevention/Good Housekeeping for Municipal Operations

New permittees shall develop and implement elements of their storm water management program addressing the provisions listed below. Existing permittees renewing coverage under this permit shall maintain their current programs addressing this Minimum Control Measure, updating and enhancing their storm water management programs as necessary to comply with the terms of this section.

a. Develop and implement an operation and maintenance program that includes an annual training component for municipal staff and contractors and is designed to prevent and reduce the discharge of pollutants to the maximum extent practicable.

b. Pollution Prevention- The permittee shall design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants from municipal properties, infrastructure, and operations. At a minimum, such measures must be designed, installed, implemented and maintained to:

i. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;

ii. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, chemical storage tanks, deicing material storage facilities and temporary stockpiles, detergents, sanitary waste, and other materials present on the site to precipitation and to storm water;

iii. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures; and

iv. Provide regular inspection of municipal storm water management BMPs. Based on inspection findings, the permittee shall determine if repair, replacement, or maintenance measures are necessary in order to ensure the structural integrity, proper function, and treatment effectiveness of structural storm water BMPs. Necessary maintenance shall be completed as soon as conditions allow to prevent or reduce the discharge of pollutants to storm water.

c. Deicing material must be stored in a permanent or temporary storage structure or seasonal tarping must be utilized. If no permanent structures are owned or operated by the Permittee, new permanent deicing material storage structures shall be constructed within two years of the effective date of this permit. Storage structures or stockpiles shall be located and managed to minimize storm water pollutant runoff from the stockpiles or loading/unloading areas of the stockpiles. Stockpiles and loading/unloading areas should be located as far as practicable from any area storm sewer drains. Fertilizer, pesticides, or other chemicals shall be stored indoors to prevent any discharge of such chemicals within the storm water runoff.

d. Using training materials that are available from USEPA, the State of Illinois, or other organizations, the permittee's program must include annual employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, operation of storage yards, snow disposal, deicing material storage handling and use on roadways, new construction and land disturbances, and storm water system maintenance procedures for proper disposal of street cleaning debris and catch basin material. In addition, training should include how flood management projects impact water quality, non-point source pollution control, green infrastructure controls, and aquatic habitat.

e. Define appropriate BMPs for this minimum control measure and measurable goals for each BMP. These measurable goals must ensure the reduction of all of the pollutants of concern in your storm water discharges to the maximum extent practicable.

f. Provide an annual evaluation of pollution prevention/good housekeeping for municipal operations and measureable goals in the Annual Report pursuant to Part V.C.1.

C. Qualifying State, County, or Local Program

If an existing qualifying local program requires a permittee to implement one or more of the minimum control measures of Part IV. B. above, the permittee may follow that qualifying program's requirements rather than the requirements of Part IV.B. above. A qualifying local program is a local, county, or state municipal storm water management program that imposes, at a minimum, the relevant requirements of Part IV. B. Any qualifying local programs that permittees intend to follow shall be specified in their storm water management program.

D. Sharing Responsibility

1. Implementation of one or more of the minimum control measures may be shared with another entity, or the entity may fully take over the control measure. A permittee may rely on another entity only if:

a. The other entity implements the control measure;

b. The particular control measure, or component of that measure is at least as stringent as the corresponding permit requirement;

c. The other entity agrees to implement any minimum control measure on the permittee's behalf. A written agreement of this obligation is recommended. This obligation must be maintained as part of the description of the permittee's Storm Water Management Program. If the other entity agrees to report on the minimum control measure, the permittee must supply the other entity with the reporting requirements contained in Part V.C of this permit. If the other entity fails to implement the minimum control measure on the permittee's behalf, then the permittee remains liable for any discharges due to that failure to implement the minimum control measure.

E. Reviewing and Updating Storm Water Management Programs

1. Storm Water Management Program Review- The permittee must perform an annual review of its Storm Water Management Program in conjunction with preparation of the annual report required under Part V.C. The permittee must include in its annual report a plan for complying with any changes or new provisions in this permit, or in any State or federal regulations. The permittee must also include in its annual report a plan for complying with all applicable TMDL Report(s) or watershed management plan(s). Information on TMDLs may be found at:

http://www.epa.state.il.us/water/tmdl/.

2. Storm Water Management Program Update - The permittee may modify its Storm Water Management Program during the life of the permit in accordance with the following procedures:

a. Modifications adding (but not subtracting or replacing) components, controls, or requirements to the Storm Water Management Program may be made at any time upon written notification to the Agency;

b. Modifications replacing an ineffective or infeasible BMP specifically identified in the Storm Water Management Program with an alternate BMP may be requested at any time. Unless denied by the Agency, modifications proposed in accordance with the criteria below shall be deemed approved and may be implemented 60 days from submittal of the request. If the request is denied, the Agency will send the permittee a written response giving a reason for the decision. The permittee's modification requests must include the following:

i. An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);

ii. Expectations on the effectiveness of the replacement BMP; and

iii. An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.

c. Modification of any ordinances relative to the storm water management program, provided the updated ordinance is at least as stringent as the provisions stipulated in this permit; and

d. Modification requests or notifications must be made in writing and signed in accordance with Standard Condition II of Attachment H.

3. Storm Water Management Program Updates Required by the Agency. Modifications requested by the Agency must be made in writing, set forth the time schedule for permittees to develop the modifications, and offer permittees the opportunity to propose alternative program modifications to meet the objective of the requested modification. All modifications required by the Permitting Authority will be made in accordance with 40 CFR 124.5, 40 CFR 122.62, or as appropriate 40 CFR 122.63. The Agency may require modifications to the Storm Water Management Program as needed to:

a. Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;

b. Include more stringent requirements necessary to comply with new federal or State statutory or regulatory requirements; or

c. Include such other conditions deemed necessary by the Agency to comply with the goals and requirements of the Clean Water Act.

PART V. MONITORING, RECORDKEEPING, AND REPORTING

A. Monitoring

The permittee must develop and implement a monitoring and assessment program to evaluate the effectiveness of the BMPs being implemented to reduce pollutant loadings and water quality impacts within 180 days of the effective date of this permit. The program should be tailored to the size and characteristics of the MS4 and the watershed. The permittee shall provide a justification of its monitoring and assessment program in the Annual Report. By not later than 180 days after the effective date of this permit, the permittee shall initiate an evaluation of its storm water program. The plan for monitoring/evaluation shall be described in the Annual Report. Evaluation and/or monitoring results shall be provided in the Annual Report. The monitoring and assessment program may include evaluation of BMPs and/or direct water quality monitoring as follows:

1. An evaluation of BMPs based on estimated effectiveness from published research accompanied by an inventory of the number and location of BMPs implemented as part of the permittee's program and an estimate of pollutant reduction resulting from the BMPs, or

2. Monitoring the effectiveness of storm water control measures and progress towards the MS4's goals using one or more of the following:

a. MS4 permittees serving a population of less than 25,000 may conduct visual observations of the storm water discharge documenting color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, or other obvious indicators of storm water pollution; or

b. MS4 permittees may evaluate storm water quality and impacts using one or more of the following methods;

i. Instream monitoring in the highest level hydrological unit code segment in the MS4 area. Monitoring shall include, at a minimum, quarterly monitoring of receiving waters upstream and downstream of the MS4 discharges in the designated stream(s).

ii. Measuring pollutant concentrations over time.

iii. Sediment monitoring.

iv. Short-term extensive network monitoring. Short-term sampling at the outlets of numerous drainage areas to identify water quality issues and potential storm water impacts, and may help in ranking areas for implementation priority. Data collected simultaneously across the MS4 to help characterize the geographical distribution of pollutant sources.

v. Site-specific monitoring. High-value resources such as swimming beaches, shellfish beds, or high-priority habitats could warrant specific monitoring to assess the status of use support. Similarly, known high-priority pollutant sources or impaired water bodies with contaminated aquatic sediments, an eroding stream channel threatening property, or a stream reach with a degraded fish population could be monitored to assess impacts of storm water discharges and/or to identify improvements that result from the implementation of BMPs.

vi. Assessing physical/habitat characteristics such as stream bank erosion caused by storm water discharges.

vii. Outfall/Discharge monitoring.

viii. Sewershed-focused monitoring. Monitor for pollutants in storm water produced in different areas of the MS4. For example, identify which pollutants are present in storm water from industrial areas, commercial areas, and residential areas.

ix. BMP performance monitoring. Monitoring of individual BMP performance to provide a direct measure of the pollutant reduction efficiency of these key components of a MS4 program.

x. Collaborative watershed-scale monitoring. The permittee may choose to work collaboratively with other permittees and/or a watershed group to design and implement a watershed or sub-watershed-scale monitoring program that assesses the water quality of the water bodies and the sources of pollutants. Such programs must include elements which assess the impacts of the permittee's storm water discharges and/or the effectiveness of the BMPs being implemented.

c. If ambient water quality monitoring under 2b above is performed, the monitoring of storm water discharges and ambient monitoring intended to gauge storm water impacts shall be performed within 48 hours of a precipitation event greater than or equal to one quarter inch in a 24-hour period. At a minimum, analysis of storm water discharges or ambient water quality shall include the following parameters: total suspended solids, total nitrogen, total phosphorous, fecal coliform, chlorides, and oil and grease. In addition, monitoring shall be performed for any other pollutants associated with storm water runoff for which the receiving water is considered impaired pursuant to the most recently approved list under Section 303(d) of the Clean Water Act.

B. Recordkeeping

The permittee must keep records required by this permit for 5 years after the expiration of this permit. Records to be kept under this Part include the permittee's NOI, storm water management plan, annual reports, and monitoring data. All records shall be kept onsite or locally available and shall be made accessible to the Agency for review at the time of an on-site inspection. Except as otherwise provided in this permit, permittees must submit records to the Agency only when specifically requested to do so. Permittees must post their NOI, storm water management program plan, and annual reports on the permittee's website. The permittee must make its records available to the public at reasonable times during regular business hours. The permittee may require a member of the public to provide advance notice, in accordance with the applicable Freedom of Information Act requirements. Storm sewer maps may be withheld for security reasons.

C. Reporting

The permittee must submit Annual Reports to the Agency by the first day of June for each year that this permit is in effect. If the permittee maintains a website, a copy of the Annual Report shall be posted on the website by the first day of June of each year. Each Report shall cover the period from March of the previous year through March of the current year. Annual Reports shall be maintained on the permittees' website for a period of 5 years. The Report must include:

1. An assessment of the appropriateness and effectiveness of the permittee's identified BMPs and progress towards achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable (MEP), and the permittee's identified measurable goals for each of the minimum control measures;

2. The status of compliance with permit conditions, including a description of each incidence of non-compliance with the permit, and the permittee's plan for achieving compliance with a timeline of actions taken or to be taken;

3. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

4. A summary of the storm water activities the permittee plans to undertake during the next reporting cycle, including an implementation schedule;

5. A change in any identified BMPs or measurable goals that apply to the program elements;

6. Notice that the permittee is relying on another government entity to satisfy some of the permit obligations (if applicable);

7. Provide an updated summary of any BMP or adaptive management strategy constructed or implemented pursuant to any approved TMDL or alternate water quality management study. Use the results of your monitoring program to assess whether the WLA or other performance requirements for storm water discharges from your MS4 are being met; and

8. If a qualifying local program or programs with shared responsibilities is implementing all minimum control measures on behalf of one or more entities, then the local qualifying program or programs with shared responsibilities may submit a report on behalf of itself and any entities for which it is implementing all of the minimum control measures.

The Annual Reports shall be submitted to the following office and email addresses:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
Municipal Annual Inspection Report
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

epa.ms4annualinsp@illinois.gov

PART VI. DEFINITIONS AND ACRONYMS

All definitions contained in Section 502 of the Clean Water Act, 40 CFR 122, and 35 Ill. Adm. Code 309 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided. In the event of a conflict, the definition found in the statute or regulation takes precedence.

Best Management Practices (BMPs) means structural or nonstructural controls, schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

BMP is an acronym for "Best Management Practices."

CFR is an acronym for "Code of Federal Regulations."

Control Measure as used in this permit refers to any Best Management Practice or other method used to prevent or reduce storm water runoff or the discharge of pollutants to waters of the State.

CWA or The Act means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 ET. seq.

Discharge when used without a qualifier, refers to discharge of a pollutant as defined at 40 CFR 122.2.

Environmental Justice (EJ) means the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies

Environmental Justice Area means a community with a low-income and/or minority population greater than twice the statewide average. In addition, a community may be considered a potential EJ community if the low-income and/or minority population is less than twice the state-wide average but greater than the statewide average and it has identified itself as an EJ community. If the low-income and/or minority population percentage is equal to or less than the statewide average, the community should not be considered a potential EJ community.

Flood management project means any project which is intended to control, reduce or minimize high stream flows and associated damage. This may also include projects designed to mimic or improve natural conditions in the waterway.

Green Infrastructure means wet weather management approaches and technologies that utilize, enhance or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration and reuse. Green infrastructure approaches currently in use include green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, porous and permeable pavements, porous piping systems, dry wells, vegetated median strips, reforestation/revegetation, rain barrels, cisterns, and protection and enhancement of riparian buffers and floodplains.

Illicit Connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge is defined at 40 CFR 122.26(b)(2) and refers to any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.

MEP is an acronym for "Maximum Extent Practicable," the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA Section 402(p). A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34.

MS4 is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Dallas MS4"). The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities (e.g., the Houston MS4 includes MS4s operated by the city of Houston, the Texas Department of Transportation, the Harris County Flood Control District, Harris County, and others).

Municipal Separate Storm Sewer is defined at 40 CFR 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

NOI is an acronym for "Notice of Intent" to be covered by this permit and is the mechanism used to "register" for coverage under a general permit.

NPDES is an acronym for "National Pollutant Discharge Elimination System."

Outfall is defined at 40 CFR 122.26(b) (9) and means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

Owner or Operator is defined at 40 CFR 122.2 and means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Permitting Authority means the Illinois EPA.

Point Source is defined at 40 CFR 122.2 and means any discernable, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutants of Concern means pollutants identified in a TMDL waste load allocation (WLA) or on the Section 303(d) list for the receiving water, and any of the pollutants for which water monitoring is required in Part V.A. of this permit.

Qualifying Local Program is defined at 40 CFR 122.34(c) and means a local, state, or Tribal municipal storm water management program that imposes, at a minimum, the relevant requirements of paragraph (b) of Section 122.34.

Small Municipal Separate Storm Sewer System is defined at 40 CFR 122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, a State [sic], city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State [sic] law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States, but is not defined as "large" or "medium" municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

Storm Water is defined at 40 CFR 122.26(b) (13) and means storm water runoff, snowmelt runoff, and surface runoff and drainage.

Storm Water Management Program (SWMP) refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system.

SWMP is an acronym for "Storm Water Management Program."

TMDL is an acronym for "Total Maximum Daily Load."

Waters (also referred to as waters of the state or receiving water) is defined at Section 301.440 of Title 35: Subtitle C: Chapter I of the Illinois Pollution Control Board Regulations and means all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon the State of Illinois, except that sewers and treatment works are not included except as specially mentioned; provided, that nothing herein contained shall authorize the use of natural or otherwise protected waters as sewers or treatment works except that in-stream aeration under Agency permit is allowable.

"You" and "Your" as used in this permit is intended to refer to the permittee, the operator, or the discharger as the context indicates and that party's responsibilities (e.g., the city, the country, the flood control district, the U.S. Air Force, etc.).

Attachment H

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24-Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8-Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

(2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated

facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) **Monitoring and records.**

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.

(c) Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.

(a) **Application.** All permit applications shall be signed as follows:

(1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation:

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a); and

(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and

(3) The written authorization is submitted to the Agency.

(c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(12) **Reporting requirements.**

(a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.
Notice is required when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).

(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

(b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.

(d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(2) Any upset which exceeds any effluent limitation in the permit.

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

(g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).

(h) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) **Bypass.**

(a) Definitions.

(1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).

(c) Notice.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(d) Prohibition of bypass.

(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(iii) The permittee submitted notices as required under paragraph (13)(c).

(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) **Upset.**

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).

(4) The permittee complied with any remedial measures required under paragraph (4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:

(a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

(b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:

(1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and

(3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.

(3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or

(4) The level established by the Agency in this permit.

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

(17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:

(a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:

(a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;

(b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and

(c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(19) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.
Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).

(23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

(24) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(25) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.

(28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

(Rev. 7-9-2010 bah)

APPENDIX 9

Nonpoint Source Program Success Story – Addison Creek

Section 319
NONPOINT SOURCE PROGRAM SUCCESS STORY
Illinois

Stabilizing Streambanks and Restoring Wetlands Improves Habitat

Waterbody Improved Streambank modification/destabilization contributed to total suspended solids (TSS) impairment of a 6.6-mile segment of Addison Creek in Illinois. Implementing streambank stabilization techniques and wetland restoration measures through section 319 of the Clean Water Act (CWA) enhanced water quality and helped Addison Creek meet TSS water quality goals for its designated water use classifications.

Problem

Data collected in 1998 revealed that Addison Creek was not supporting designated uses for aquatic life, in part because of TSS. This data also suggested that stormwater runoff contributed to the impairment through streambank modification/destabilization. As a result, the Illinois Environmental Protection Agency (EPA) placed a 6.6-mile segment of Addison Creek in Cook County, Illinois, on the 2002 CWA section 303(d) list of impaired waters (Figure 1).

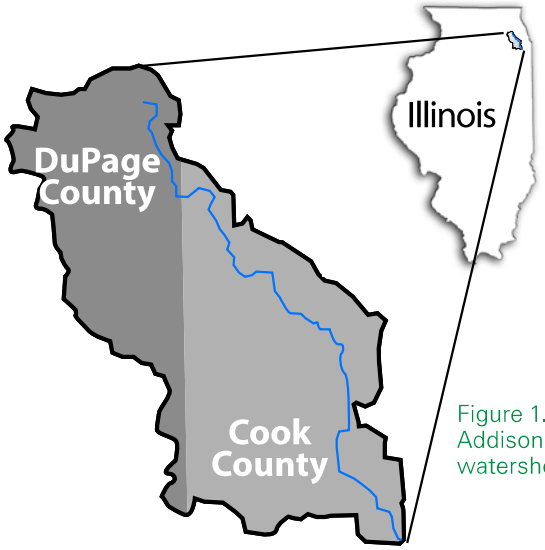


Figure 1. Map of Addison Creek watershed.

Project Highlights

Illinois EPA used CWA section 319 funds to implement three nonpoint source pollution control projects in the Addison Creek watershed since 1998. These projects reduced nonpoint source pollution by applying bioengineering techniques to stabilize approximately 8,720 feet of eroding streambanks. Specific techniques included A-jacks with vegetation, Stabilator toe with vegetation, riprap, lunkers, and vegetated gabion baskets (Figures 2 and 3). The project partners also removed selected trees to allow increased light penetration, built riffles, and planted native forbs, grasses, and sedges. In addition, they restored a 30-foot-wide, 1.29-acre wetland on each side of a 1,300-foot-long section of stream (Figure 4).

Figure 2. A gabion toe (cage filled with earth and rocks) protects the left and right banks in this section of Addison Creek.

Addison Creek is a tributary of Salt Creek, which is also included on Illinois' CWA section 303(d) list. A report containing the total maximum daily loads and the implementation plan for

Figure 3. Streambank stabilization techniques used on this portion of the creek include vegetated banks with an A-Jacks toe on the left bank and a Stabilator toe on the right bank.

Figure 4. Along this section of the creek, the partners restored a streamside wetland and stabilized the streambank with vegetation, riprap, and riffles.

Salt Creek was completed and approved in September 2004.

Results

Although Addison Creek was still identified as not supporting designated uses for aquatic life in 2006, TSS and streambank modification/destabilization have been removed as a cause and source of impairment. TSS did not exceed 116 milligrams per liter in any samples from the Ambient Water Quality Monitoring Network station on Addison Creek between 2000 and 2003. Habitat data collected in 2001 at this station rated bank vegetative protection/stability as good. The segment will remain listed for excess nutrients, various metals, pathogens, total dissolved solids, and flow regime alterations.

Partners and Funding

A combination of $444,561 in section 319 grants and $300,891 in matched costs enabled Addison Creek Conservancy District to implement streambank stabilization practices. The restoration of the riparian buffer zone was completed by the City of Northlake using $296,443 in section 319 funding and $2,000,000 local cost-share. The total cost of this project was $3,041,895.

U.S. Environmental Protection Agency
Office of Water
Washington, DC

EPA 841-F-07-001GG
December 2007

For additional information contact:

Scott Ristau
Illinois Environmental Protection Agency
217-782-3362
Scott.Ristau@illinois.gov

APPENDIX 10

Sample Inspection Forms: ILR40 and ILR10

NPDES Site Audit Report for ILR10

General Information			
Project Name			Approximate Acreage
Operator			
Project Location			
Date of Site Visit		NPDES Permit No. ILR10	
Observer's Name(s) & Title(s)			
Construction phase(s) at time of visit	☐ Pre-Construction ☐ Vertical Construction ☐ Post Construction	☐ Land Development ☐ Roadway Construction ☐ Other: _____	

Type of Site Visit:

☐ Initial Visit ☐ Follow-up ☐ Other: _____

Weather Information

Weather conditions during the site visit:

SWPPP/Soil Erosion and Sediment Control (SESC) Plan

1. Has the SWPPP been updated/amended as required by the NPDES Permit and/or local requirements? ☐ Yes ☐ No ☐ N/A
2. Is the Operator Certification Form signed and maintained with SWPPP? ☐ Yes ☐ No ☐ N/A
3. Are Contractor Certification Forms signed and maintained with SWPPP? ☐ Yes ☐ No ☐ N/A
4. Have inspection reports been completed and signed every 7 calendar days and after ≥0.5 inch precipitation events? ☐ Yes ☐ No ☐ N/A

SWPPP/SESC Plan Comments: _____

Site Observations – Describe Location and Recommend Corrective Measures Below

No.	BMP/Activity	Implemented & Maintained
1	Are discharge points and receiving waters free of sediment deposits and other pollutants (from the construction site)?	☐ Yes ☐ Action Item ☐ N/A
2	Have BMPs specified in the SWPPP been installed and maintained?	☐ Yes ☐ Action Item ☐ N/A
3	Are stabilized entrances installed and are adjacent roads clear of sediment?	☐ Yes ☐ Action Item ☐ N/A
4	Are outlets protected/stabilized?	☐ Yes ☐ Action Item ☐ N/A
5	Have stormwater management systems been constructed, stabilized, and verified to be functioning appropriately?	☐ Yes ☐ Action Item ☐ N/A
6	Are Special Management Areas (e.g., creeks, wetlands, buffers, etc.) adequately protected?	☐ Yes ☐ Action Item ☐ N/A
7	Are storm drain inlets adequately protected?	☐ Yes ☐ Action Item ☐ N/A
8	Have all idle, disturbed areas been stabilized within 14 days of cessation of construction activities in that area (or more restrictive time period per local ordinance requirement)?	☐ Yes ☐ Action Item ☐ N/A
9	Are erodible stockpiles (e.g., topsoil) properly located and adequately protected?	☐ Yes ☐ Action Item ☐ N/A
10	Are washout facilities (e.g., concrete washouts, etc.) available and maintained?	☐ Yes ☐ Action Item ☐ N/A
11	Is waste, including building materials and construction debris, collected and placed in approved receptacles?	☐ Yes ☐ Action Item ☐ N/A
12	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ Action Item ☐ N/A
13	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other potential pollutants?	☐ Yes ☐ Action Item ☐ N/A
14	Are portable toilets, material storage areas, and materials that are potential stormwater contaminants managed appropriately?	☐ Yes ☐ Action Item ☐ N/A
15	Other, based on site conditions:	☐ Yes ☐ Action Item ☐ N/A

No.	Location and Recommended Corrective Measure

General Notes and Comments: _____

NPDES Site Audit Report for ILR40

General Information			
Project Name			Approximate Acreage
Operator			
Project Location			
Date of Site Visit		NPDES Permit No. ILR10 (If Applicable)	
Observer's Name(s) & Title(s)			
Construction phase(s) at time of visit	☐ Pre-Construction ☐ Vertical Construction ☐ Post Construction	☐ Land Development ☐ Roadway Construction ☐ Other:	

Type of Site Visit:

☐ Initial Visit ☐ Follow-up ☐ Other: _____

Weather Information

Weather conditions during the site visit:

SWPPP/Soil Erosion and Sediment Control (SESC) Plan

1.	Is an NPDES Permit required for construction site activities? (e.g., Does the construction activity disturb ≥ 1 acre?)	☐ Yes ☐ No ☐ N/A
2.	Is the SWPPP on site (or accessible with location posted)?	☐ Yes ☐ No ☐ N/A
3.	Is the SWPPP/SESC Plan updated/amended as required by the NPDES Permit and/or local requirements?	☐ Yes ☐ No ☐ N/A
4.	Are Operator and Contractor Certification Forms signed and maintained with SWPPP?	☐ Yes ☐ No ☐ N/A
5.	Have inspection reports been completed and signed every 7 calendar days and after ≥0.5 inch precipitation events?	☐ Yes ☐ No ☐ N/A

SWPPP/SESC Plan Comments: _____

Site Observations – Describe Location and Recommend Corrective Measures Below

No.	BMP/Activity	Implemented & Maintained
1	Are discharge points and receiving waters free of sediment deposits and other pollutants (from the construction site)?	☐ Yes ☐ Action Item ☐ N/A
2	Have BMPs specified in the SWPPP been installed and maintained?	☐ Yes ☐ Action Item ☐ N/A
3	Have stabilized construction entrances been installed and are adjacent roads clear of sediment track out?	☐ Yes ☐ Action Item ☐ N/A
4	Are outlets protected/stabilized?	☐ Yes ☐ Action Item ☐ N/A
5	Have stormwater management systems been constructed, stabilized, and verified to be functioning appropriately?	☐ Yes ☐ Action Item ☐ N/A
6	Are Special Management Areas (e.g., creeks, wetlands, buffers, etc.) adequately protected?	☐ Yes ☐ Action Item ☐ N/A
7	Are storm drain inlets adequately protected?	☐ Yes ☐ Action Item ☐ N/A
8	Have all idle, disturbed areas been stabilized within 14 days of cessation of construction activities in that area (or more restrictive time period per local ordinance requirement)?	☐ Yes ☐ Action Item ☐ N/A
9	Are erodible stockpiles (e.g., topsoil) properly located and adequately protected?	☐ Yes ☐ Action Item ☐ N/A
10	Are washout facilities (e.g., concrete washouts, etc.) available and maintained?	☐ Yes ☐ Action Item ☐ N/A
11	Is waste, including building materials and construction debris, collected and placed in approved receptacles?	☐ Yes ☐ Action Item ☐ N/A
12	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ Action Item ☐ N/A
13	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other potential pollutants?	☐ Yes ☐ Action Item ☐ N/A
14	Are portable toilets, material storage areas, and materials that are potential stormwater contaminants managed appropriately?	☐ Yes ☐ Action Item ☐ N/A
15	Other, based on site conditions:	☐ Yes ☐ Action Item ☐ N/A

No.	Location and Recommended Corrective Measure

General Notes and Comments: _____

CHRISTOPHER B. BURKE ENGINEERING, LTD.
CBBEL NPDES REPORT

Date of Site Visit: _____
Date of Last Site Visit: _____
NPDES Permit No.: _____
Client: _____
Site Name: _____
CBBEL Project Number: _____
CBBEL Staff Member & Title: _____

Estimated Date of Last Significant Rain Event: _____

Response to Previous Report(s):

Erosion and Sedimentation
Minor ☐ Moderate ☐ Severe ☐ N/A ☐
Observations/Recommended Action:

Condition of Site Discharge Point(s)
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Condition of Roadways and Locations where vehicles enter or exit the site
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Silt Fence
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Inlet/Outlet Protection
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Ditch Checks/Check Dams
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Concrete Washouts
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Housekeeping/Material Storage
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

General Comments:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name & Title: _____

Signature: _____ Date: _____

PLEASE CALL IF YOU NEED ADDITIONAL INFORMATION -- PHONE: (847) 823-0500 FAX (847) 823-0520

APPENDIX 11

Sample Contractor Certification Forms

SWPPP CERTIFICATION

Insert Name of Project

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Signature of Operator Date

_____

Printed Name of Operator

CONTRACTOR CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Project: ***Insert Project Name***

Permit #: ***Insert NPDES Permit Number***

_____	_____
Contractor's Signature	Date
_____	_____
Printed Name & Title	Telephone Number
_____	
Name of Contracting Firm	
_____	
Street Address	
_____	
City, State, Zip Code	

Trade/Responsibilities: _____

_____

_____

_____

APPENDIX 12

IEPA Forms – NOI, ION, and NOT

Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
Construction Site Storm Water Discharge Incidence of Non-Compliance (ION)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. You may email this completed form to:
epa.swnoncomp@illinois.gov

For Office Use Only

Permit No. ILR10_____

Permittee Information:

Name: _____

Street Address: _____ P.O. Box: _____

City: _____ State: IL Zip Code: _____ County: _____

Phone: _____ Email: _____

Construction Site Information:

Site Name: _____

Street Address: _____

City: _____ State: IL Zip Code: _____

Latitude: _____ _____ _____ Longitude: _____ _____ _____ _____ _____ _____

(Deg) (Min) (Sec) (Deg) (Min) (Sec) Section Township Range

Cause of Non-Compliance

_____

_____

_____

_____

Actions Taken to Prevent Any Further Non-Compliance

_____

_____

_____

_____

Environmental Impact Resulting From the Non-Compliance

_____

_____

_____

_____

Actions Taken to Reduce the Environmental Impact Resulting From the Non-Compliance

_____

_____

_____

_____

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))

_____ _____
Owner Signature: Date:

_____ _____
Printed Name: Title:

IL 532 2105 WPC
624 Rev. 10/2011

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

DIVISION OF WATER POLLUTION CONTROL
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
FIELD OPERATIONS SECTION

GUIDELINES FOR COMPLETION OF INCIDENCE OF NON-COMPLIANCE (ION) FORM

Complete and submit this form for any violation of the Storm Water Pollution Prevention Plan observed during any inspection conducted, including those not required by the SWPPP. Please adhere to the following guidelines:

Initial submission within 24 hours by email, telephone or fax (see region fax numbers) of any incidence of non-compliance for any violation. Submit email copy to: epa.swnoncomp@illinois.gov. After 24 hours notification, submit signed original ION within 5 days to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance #19
Post Office Box 19276
Springfield, Illinois 62794-9276

FIELD OPERATIONS HEADQUARTERS
Bruce Yurdin, Manager
Phone: 217/782-3362 Fax: 217/785-1225
EMAIL: epa.swnoncomp@illinois.gov

Region 1 - ROCKFORD
Chuck Corley, Manager
Phone: 815/987-7760 Fax: 815/987-7005

Region 2 - DESPLAINES
Jay Patel, Manager
Phone: 847/294-4000 Fax: 847/294-4058

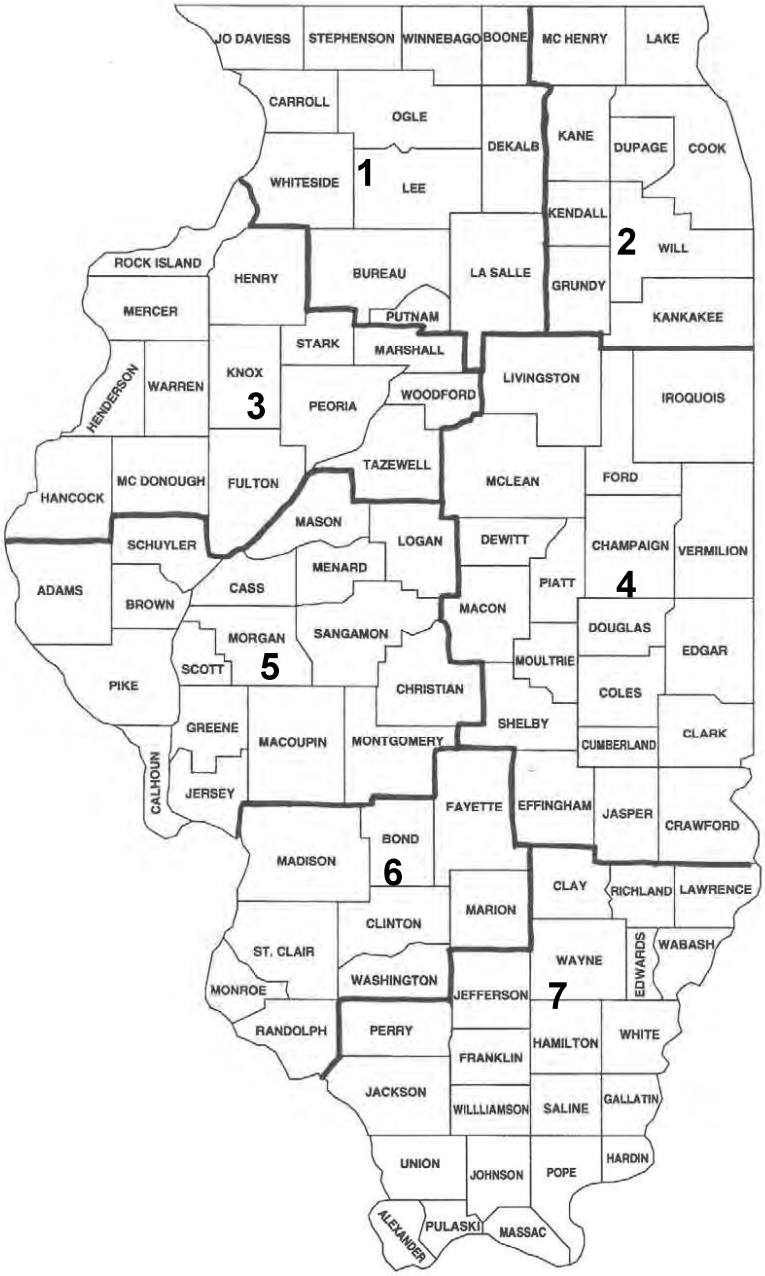
Region 3 - PEORIA
Jim Kammueller, Manager
Phone: 309/693-5463 Fax: 309/693-5467

Region 4 - CHAMPAIGN
Joe Koronkowski, Manager
Phone: 217/278-5800 Fax: 217/278-5808

Region 5 - SPRINGFIELD
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 6 - COLLINSVILLE
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 7- MARION
Byron Marks, Manager
Phone: 618/993-7200 Fax: 618/997-5467



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Division of Water Pollution Control
Notice of Intent (NOI) for General Permit
to Discharge Storm Water Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

For Office Use Only

Permit No. ILR10 _____

OWNER INFORMATION

Company/Owner Name: _____

Mailing Address: _____ Phone: _____

City: _____ State: ___ Zip: _____ Fax: _____

Contact Person: _____ E-mail: _____

Owner Type (select one) _____

MS4 Community: ◯ Yes ◯ No

CONTRACTOR INFORMATION

Contractor Name: _____

Mailing Address: _____ Phone: _____

City: _____ State: ___ Zip: _____ Fax: _____

CONSTRUCTION SITE INFORMATION

Select One: ◯ New ◯ Change of information for: ILR10 _____

Project Name: _____ County: _____

Street Address: _____ City: _____ IL Zip: _____

Latitude: _____ _____ _____ Longitude: _____ _____ _____ _____ _____ _____

(Deg) (Min) (Sec) (Deg) (Min) (Sec) Section Township Range

Approximate Construction Start Date _____ Approximate Construction End Date _____

Total size of construction site in acres: _____

If less than 1 acre, is the site part of a larger common plan of development?

◯ Yes ◯ No

Fee Schedule for Construction Sites:
Less than 5 acres - $250
5 or more acres - $750

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Has the SWPPP been submitted to the Agency? ◯ Yes ◯ No

(Submit SWPPP electronically to: epa.constilr10swppp@illinois.gov)

Location of SWPPP for viewing: Address: _____ City: _____

SWPPP contact information: Inspector qualifications:

Contact Name: _____ _____

Phone: _____ Fax: _____ E-mail: _____

Project inspector, if different from above Inspector qualifications:

Inspector's Name: _____ _____

Phone: _____ Fax: _____ E-mail: _____

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

TYPE OF CONSTRUCTION (select one)

Construction Type _____

SIC Code: _____

Type a detailed description of the project:

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

Has the project been submitted to the following state agencies to satisfy applicable requirements for compliance with Illinois law on:

Historic Preservation Agency ◯ Yes ◯ No

Endangered Species ◯ Yes ◯ No

RECEIVING WATER INFORMATION

Does your storm water discharge directly to: ☐ Waters of the State or ☐ Storm Sewer

Owner of storm sewer system: _____

Name of closest receiving water body to which you discharge: _____

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

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))

_____ Owner Signature:

_____ Date:

_____ Printed Name:

_____ Title:

INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the upper right hand corner of the first page.

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610

FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

Any facility that is not presently covered by the General NPDES Permit for Storm Water Discharges From Construction Site Activities is considered a new facility.

If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line, changes of information or permit renewal notifications do not require a fee.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

	Example	Format
Section	12	1 or 2 numerical digits
Township	12N	1 or 2 numerical digits followed by "N" or "S"
Range	12W	1 or 2 numerical digits followed by "E" or "W"

For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as “Unnamed Tributary to Sugar Creek to Sangamon River.”

Submission of initial fee and an electronic submission of Storm Water Pollution Prevention Plan (SWPPP) for Initial Permit prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits. Please make checks payable to: Illinois EPA at the above address.

Construction sites with less than 5 acres of land disturbance - fee is $250.

Construction sites with 5 or more acres of land disturbance - fee is $750.

SWPPP should be submitted electronically to: epa.constilr10swppp@illinois.gov. When submitting electronically, use Project Name and City as indicated on NOI form.

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
NOTICE OF TERMINATION (NOT)
of Coverage under the General Permit for Storm Water Discharges Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

Permit No. ILR10 _____

OWNER INFORMATION

Owner Name: _____

Owner Type (select one) _____

Mailing Address: _____ Phone: _____

City: _____ State: ____ Zip: _____ Fax: _____

Contact Person: _____ E-mail: _____

CONTRACTOR INFORMATION

Contractor Name: _____

Mailing Address: _____ Phone: _____

City: _____ State: ____ Zip: _____ Fax: _____

CONSTRUCTION SITE INFORMATION

Facility Name: _____

Street Address: _____

City: _____ IL Zip: _____ County: _____

NPDES Storm Water General Permit Number: ILR10 _____

Latitude: _____ _____ _____ Longitude: _____ _____ _____ _____ _____ _____

(Deg) (Min) (Sec) (Deg) (Min) (Sec) Section Township Range

DATE PROJECT HAS BEEN COMPLETED AND STABILIZED: _____

NOTE: Coverage under this permit cannot be terminated without the completion date.

I certify under penalty of law that disturbed soils at the identified facility have been finally stabilized or that all storm water discharges associated with industrial activity from the identified facility that are authorized by an NPDES general permit have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with industrial activity by the general permit, and that discharging pollutants in storm water associated with industrial activity to Waters of the State is unlawful under the Environmental Protection Act and the Clean Water Act where the discharge is not authorized by an NPDES Permit.

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))

_____ _____

Owner Signature: Date:

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control, Attn: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

(Do not submit additional documentation unless requested)

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

GUIDELINES FOR COMPLETION OF NOTICE OF TERMINATION (NOT) FORM

Please adhere to the following guidelines:

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible.

Submit completed forms to:

Illinois Environmental Protection Agency
Division of Water Pollution Control, Attn: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

	Example	Format
Section	12	1 or 2 numerical digits
Township	12N	1 or 2 numerical digits followed by "N" or "S"
Range	12W	1 or 2 numerical digits followed by "E" or "W"

Final stabilization has occurred when:

(a) all soil disturbing activities at the site have been completed;

(b) a uniform perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas not covered by permanent structures; or

(c) equivalent permanent stabilization measures have been employed.

APPENDIX 13

Outfall Screening Checklist, Forms, Instructions, and Reports

Section 1: Background Data

Subwatershed:	Outfall ID:	
Date:	Time (Military):	
Temperature:	Inspector(s):	
Previous 48 Hours Precipitation:	Photo's Taken (Y/N)	If yes, Photo Numbers:
Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Residential ☐ Commercial	☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
Storm Sewer (Closed Pipe)	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Clay / draintile ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: ____	☐ Single ☐ Double ☐ Triple ☐ Other:_____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
Open drainage (swale/ditch)	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	

Section 3: Physical Indicators

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe algea/growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	
Do physical indictors suggest an illicit discharge is present (Y/N):			

Flow Present?	☐ Yes	☐ No	**If No, Skip to Section 7 and Close Illicit Discharge Investigation**
Flow Description	☐ Trickle	☐ Moderate	☐ Substantial

Section 4: Physical Indicators (Flowing Outfalls Only)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Sulfide ☐ Petroleum/gas ☐ Laundry ☐ Other:	☐ 1–Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color (color chart)	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange/Red ☐ Multi-Color ☐ Other:	☐ 1–Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1–Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage ☐ Suds and Foam ☐ Petroleum (oil sheen) ☐ Grease ☐ Other:	☐ 1–Few/slight; origin not obvious	☐ 2 – Some; indications of origin	☐ 3 - Some; origin clear
Do physical indictors (flowing) suggest an illicit discharge is present (Y/N):					

Section 5: On-Site Sampling / Testing (Flowing Outfalls Only)

PARAMETER	RESULT	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)	EQUIPMENT
Temperature		NA	NA	Thermometer
pH		6 – 9		5-in-1 Test Strip
Ammonia		<3 mg/L April – Oct < 8 mg/L Nov - March		Test Strip
Free Chlorine		NA	NA	5-in-1 Test Strip
Total Chlorine		< 0.05 mg/L		5-in-1 Test Strip
Phenols		< 0.1mg/L		Test Kit
Detergents as Surfactants		> 0.25 mg/L residential > 5 mg/L non-residential		Test Kit
Copper		<0.025 mg/L		Test Strip
Alkalinity		NA	NA	5-in-1 Test Strip
Hardness		NA	NA	5-in-1 Test Strip
Sample Location				

(Note NA values used for future tracing procedures)

Section 6: Data Collection for Lab Testing (see flow chart)

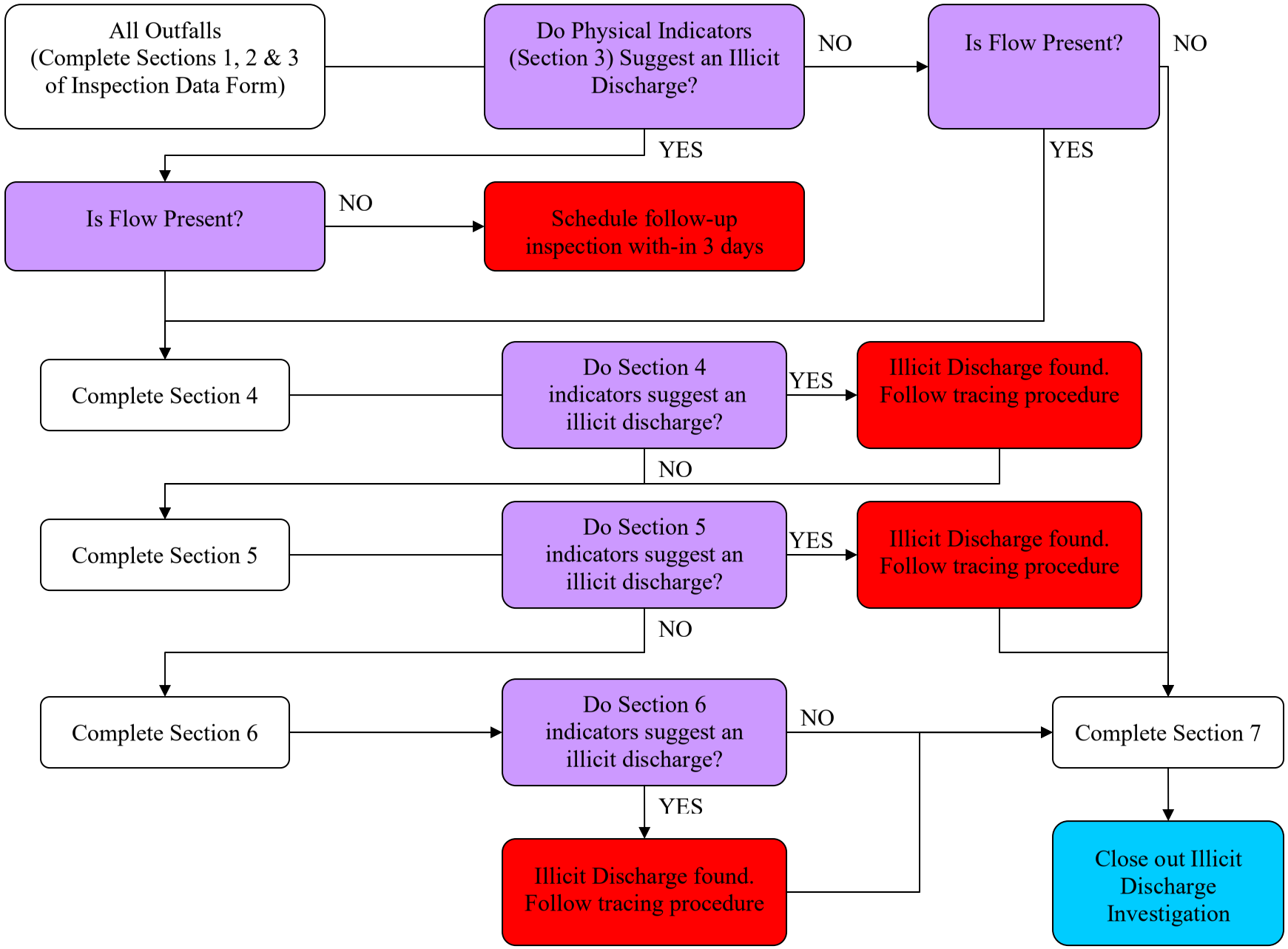
1. Sample for the lab?	☐ Yes	☐ No
2. If yes, collected from:	☐ Flow	☐ Pool

PARAMETER	RESULT (from lab)	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)
Fecal Coliform		400 per 100 mL	
Flouride		0.6 mg/l	
Potassium		Ammonium/Potassium ratio or > 20mg/l	

*note label sample with outfall number

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Figure 4: Outfall Inspection Procedure Flow Chart



Instructions for completing the
Stormwater Outfall Inspection Data Form

Strike out incorrect entries with a single line; correct values or descriptions are written above or near the struck-out entries. Do not use a new data entry form to correct an incorrect entry. At the completion of each outfall inspection, the field crews are responsible for ensuring that a ***Stormwater Outfall Inspection Data Form*** has been completely and correctly filled out and that all data and remarks are legible. **It is important to check that values for all chemical parameters have been entered**.

Section 1: Background Data

Subwatershed: The receiving water from the stormwater outfall inventory to be entered here.

Outfall ID: Enter the outfall identification number from the stormwater outfall inventory.

Date: To avoid confusion, dates are be written in the following manner: DAY MONTH YEAR. For example, 10 MARCH 2007.

Time: Military time (24-hour clock) to be used (for example, 8:30 a.m. would be written as 0830; likewise, 1:30 p.m. would be written as 1330).

Temperature: A concise description of the weather conditions at the time of the screening is to be recorded (for example, Clear, 75○ F).

Inspector: The name(s) of the field personnel.

Previous 48 Hours Precipitation: The total amount of precipitation during the 48 hours preceding the inspection is to be noted (for example, none-72 Hours or 0"=4 days). If the total precipitation is not known, it is appropriate to enter a qualitative assessment if the precipitation was minor. For example, *Drizzle-36 Hours* if appropriate. If the precipitation amount was significant, actual precipitation totals is obtained from a local rain gage, if available.

Photo's Taken (Yes/No): Photographs are to be taken with a camera that superimposes a date and time on the film. The date and time should correspond to the date and time recorded on the data form.

Photo Numbers: If photographs are taken, the number(s) is recorded.

Land Use: Check all that apply, noting which land use is predominate. If the industrial box is checked, any known industries are listed to facilitate potential tracing efforts.

Section 2: Outfall Description

Type of Outfall: Storm Sewer (Closed Pipe) or Open Drainage (Swale/Ditch):
First check if the outfall is either from a Closed Pipe or Open Drainage. Then complete the following row to describe outfall characteristics.

Section 3: Physical Indicators

Indicators: Complete rows describing outfall characteristics (Outfall Damage, Deposits/Stains, Abnormal Vegetation, Poor pool quality, Pipe algea/growth). This section is filled out regardless of current flow conditions. No flow during the time of the inspection, does not rule out the potential of illicit discharges. Corroding or stained pipes, dead or absence of vegetation, are potential indicators of illicit discharges from direct or indirect (i.e. dumping) sources.

Likelyhood: After inspecting the physical conditions of the outfall, the likelihood of an illicit discharge is assessed.

Flow Present (Yes/No): A *Yes* or *No* is entered here to indicate the presence or absence of dry-weather flow. If the outfall is submerged or inaccessible, "See Notes" is entered and an explanation provided in the "Notes" section.

Flow Description: A description of the quantity of the dry-weather flow is provided. Refer to Figure 6 of the SMPP.

Flow Chart Procedure:

- If *No* is entered in the "Flow Present" block and no non-flowing physical indicators appear present the inspection can be closed, skip to Section 7 of the form.
- If *No* is entered in the "Flow Present" block but indicators appear present, place the outfall on the follow-up inspection log, then the current inspection can be closed, skip to Section 7 of the form.
- If *Yes* is entered in the "Flow Present" block (regardless of the presence of non-flowing physical indicators), complete remainder of Section and proceed to Section 4.

Section 4: Physical Indicators (Flowing Outfalls Only)

Complete rows describing outfall characteristics (Odor, Color, Turbidity, Floatables). This section is filled out for flowing outfalls only.

Odor: The presence of an odor is to be assessed by fanning the hand toward the nose over a wide-mouth container of the sample, keeping the sample about 6 to 8 inches from the face. Be careful not to be distracted by odors in the air. Provide a description of the odor, if present. Refer to Table 2 of the SMPP.

Color: The presence of color in the discharge is to be assessed by filling a clean glass sample container with a portion of the grab sample and comparing the sample with a color chart, if color is present. If a color chart is used, the number corresponding to the color matching the sample is to be entered in this blank. Color is not assessed by looking into the discharge. Refer to Table 3 of the SMPP.

Turbidity "clarity": Turbidity is a measure of the clarity of water. Turbidity may be caused by many factors, including suspended matter such as clay, silt, or finely divided organic and inorganic matter. Turbidity is a measure of the optical properties that cause light to be scattered and not transmitted through a sample. The presence of turbidity is to be assessed by comparing the sample to clean glass sample container with colorless distilled water. Refer to Table 4 of the SMPP.

Floatables: The presence of floating scum, foam, oil sheen, or other materials on the surface of the discharge are to be noted. Describe of any floatables present that are attributable to discharges from the outfall. Do not include trash originating from areas adjacent to the outfall in this observation. Refer to Figure 5 and Table 4 of the SMPP.

Likelyhood: After inspecting the physical conditions of the outfall discharge, the likelihood of an illicit discharge is assessed. If flowing physical indicators are present the tracing procedure are immediately implemented by one of the field crew. The second member of the field crew continues with the inspection by performing the on-site testing in Section 5.

Flow Chart Procedure:

- If flowing physical indicators are present the tracing procedure is immediately implemented by one of the field crew. The second member of the field crew continues with the inspection by performing the on-site testing in Section 5.
- If flowing physical indicators do not suggest an illicit discharge continue with the inspection by performing the on-site testing in Section 5.

Section 5: On-Site Sampling/Testing (Flowing Outfalls Only)

Parameters: Test strip or kit chemical analyses are conducted for the following parameters in accordance with the Flow Chart, refer to Figure 7 of the SMPP.

- Color, color chart,
- Chlorine, test strip,
- Copper, test strip,
- Ammonia, test strip,
- Phenols, test kit, and
- Detergents, test kit.

Testing is done by either a test strip or test kit as applicable (refer to the equipment column). The results are compared with the "acceptable range" and the "within range" column is filled out with a Yes or No. Note that the Temperature, Alkalinity and Hardness are determined although these results do not need to be compared with an "acceptable range". These values are used to assist in determining the source of the illicit discharge during the tracing procedure.

Sampling Location: A description of the actual sampling location is to be recorded (for example, at end of outfall pipe). If the outfall is submerged or is inaccessible for sampling, an upstream sampling location may be required. A description of any upstream sampling locations is recorded here. Grab samples are collected from the middle, both vertically and horizontally, of the dry-weather flow discharge in a critically cleaned glass container. Samples can be collected by manually dipping a sample container into the flow.

Sampling Procedures: Detailed, step-by-step instructions for using the test strips and kits are available through the Public Works Department. Please also refer to Chapter 3.3.B.7.b. for test kit safety information. Use the following procedures for all test kit analyses:

1. Take a grab sample and swirl to ensure that the sample is well mixed.
2. Rinse the sample cup (25ml) twice with distilled water. Next, rinse the sample cup twice with water from the grab sample.
3. Fill the sample cup to the 25 ml mark, or as required by the instructions for the test kits. Hold the sample cup at eye level to ensure that measurements are accurate.
4. Conduct the test kit analyses following the manufacturer's instructions.
5. Dispose of the sample as follows:
   - If no chemical or reagents have been added to the sample, the water can be poured on the ground.
   - If any chemical or reagent is added to the sample, pour the water into a container marked "Liquid Waste" for proper disposal to a sanitary sewer system at the end of the day.
6. Rinse the sample cup three times with tap water and dry with a paper towel.

Flow Chart Procedure:

- If any parameter is outside of the "acceptable range" then an illicit discharge has likely been found. The tracing procedure is immediately implemented by one of the field crew. Testing can be stopped, and the second member of the field crew continues with the inspection by completing Section 7.
- If none of the parameters are outside of the acceptable range, proceed to Section 6.

Section 6: Data Collection for Lab Testing

Determine if the Village's Waste Water Treatment Plant (WWTP) has adequate staff capacity to analyze the samples.

- If the WWTP has adequate staff capacity, collect grab samples and provide them to the WWTP. Note the location of the sample. Label the sample with the outfall ID number. Proceed to Section 7 while in the field and complete the remainder of Section 6 after the lab results are available.
- If the WWTP does not currently have adequate capacity, determine if Sections 3 or 4 of the inspection form suggest an illicit discharge.
  - If Sections 3 or 4 suggest an illicit discharge contact and outside lab to perform the testing. Proceed to Section 7 while in the field and complete the remainder of Section 6 after the lab results are available.
  - If Sections 3 or 4 do not suggest an illicit discharge, note the outfall ID number. Place the outfall on the follow-up inspection log and proceed to Section 7 of the form. Re-inspect and sample the discharge when the WWTP has adequate capacity.

Sample Location: The location of the sample is noted. Additionally, the sample is labeled with the outfall ID number. Use the insert MS4 type's sampling procedures and refer to Chapter 3.3.B.7.b. for test kit safety information. . The following additional items are noted.

1. When you collect any samples you must fill out an ***Outfall Sampling Report* (Appendix 5.4).** The report must document time you arrive on location, take the sample and get to the plant to drop off the sample.
2. A 500-ml glass bottle sample is used to collect the sample. If you are collecting a sample that has grease 2-250ml samples taken with a glass container are required.
3. If you use the sampling container that is on a rope, it must be washed with soap and water after every use.

Parameters: Grab samples and lab testing is performed. After lab results are available enter the results here.

- If any parameter is outside of the "acceptable range" then an illicit discharge has likely been found. The tracing procedure should be immediately implemented.

- If none of the parameters are outside of the acceptable then the investigation can be closed.

Section 7 Any Non-Illicit Discharge Concerns

Any problems or unusual features are to be entered here. If the outfall appears to be potentially impacted by inappropriate discharges, this can be recorded here. This section is to be completed even if no flow is observed.

Outfall Sampling Report

Structure ID # Date:

Outfall ID # Time of Sample:

Sampled By: AM PM

Glass Bottle Size: 250 ml 500 ml 32 ml

Tests requested: Flouride Potassium Fecal Coliform

Relinquished By:	Date:
Comments:	Time:
Received By:	Date:
Comments:	Time:
Relinquished By:	Date:
Comments:	Time:
Received By:	Date:
Comments:	Time:

APPENDIX 14

Sample Inspection Checklists

Roadway Culvert / Bridge Checklist

Inspected by:	Date:	
	Weather Conditions:	

Number	Location	Size	Flood Height *(low/medium/high)*	Condition *(Good/Fair/Poor)*	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Detention/Retention Pond Checklist

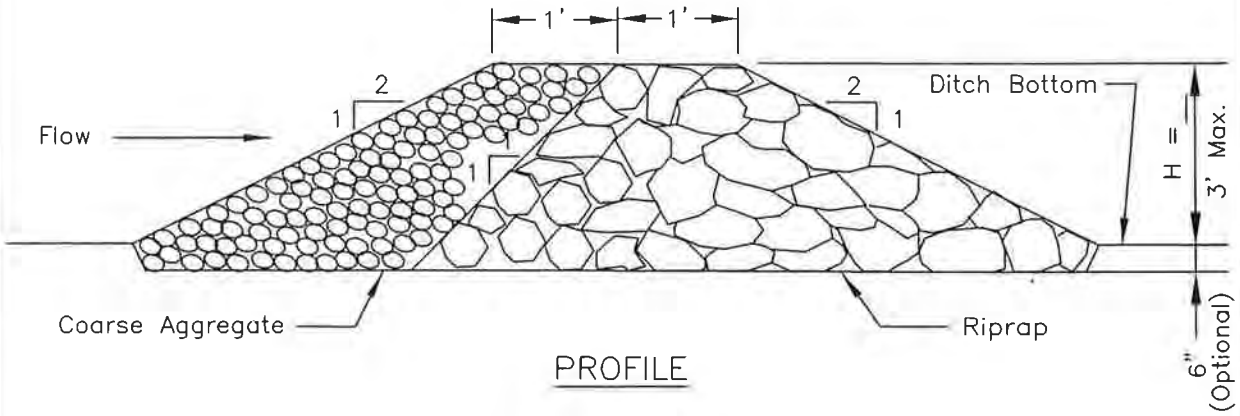
Inspected by:	**Date:**	
	Weather Conditions:	

Number	**Name/Location**	**Flood Height** *(low/medium/high)*	**Condition** *(Good / Fair / Poor)*	**Comments**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

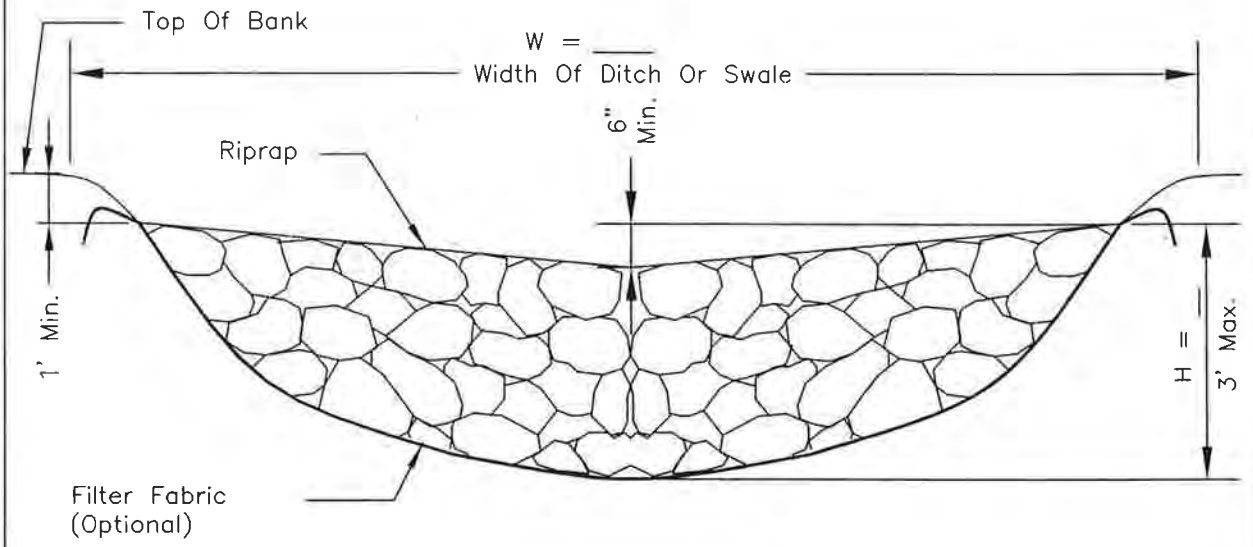
APPENDIX 15

Typical Soil Erosion and Sediment Control Details

ROCK CHECK DAM - RIPRAP



PROFILE



CROSS SECTION
CENTERLINE LOOKING DOWNSTREAM

NOTES;

1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class I, II, or IV and shall be placed over the cleared area prior to the placing of rock.
2. Coarse aggregate shall meet one of the following IDOT gradations, CA-1, CA-2, CA-3, or CA-4.
3. Riprap shall meet IDOT gradation RR-3 or RR-4 and meet Quality Designation A.
4. Coarse aggregate and riprap shall be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
5. For added stability, the base of the dam may be keyed 6 inches into the soil.
6. See plans for spacing of dams and H dimensions.
7. Maximum drainage area to each dam is 10 acres.
8. ROCK CHECK DAM-COARSE AGGREGATE IL-605CA may be used for drainage areas under 2 acres.

REFERENCE			
Project			
Designed		Date	
Checked		Date	
Approved		Date	

NRCS
Natural Resources Conservation Service

STANDARD DWG. NO.
IL-605R
SHEET 1 OF 1
DATE 1-29-99

INLET FILTER SYSTEM w/Hydrocarbon Removal

PART 1 GENERAL

1.01 WORK REQUIRED

An inlet filter system, as shown in the details, shall be installed and maintained in open grate frames as directed by the engineer.

1.02 SUBMITTALS

The contractor shall make submittals of the manufacturer's literature, shop drawings, installation and maintenance instructions, and other items in accordance with the provisions of the Standard Specifications.

PART 2 PRODUCTS

2.01 INLET FILTER SYSTEM HR

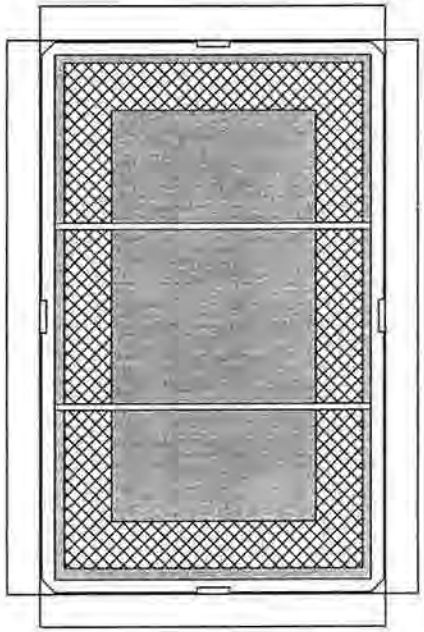
Inlet filter system HR shall consist of a replaceable reinforced filter bag with hydrocarbon removal capabilities suspended from a retainer ring, or frame. Inlet Filter Systems shall be the Catch-All **HR**, with Overflow, as furnished by Marathon Materials, Inc., or pre-approved equal.

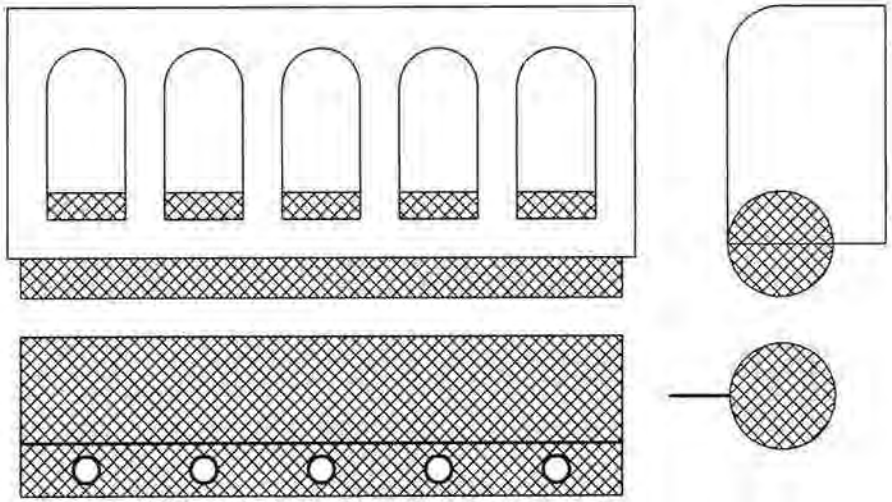
The filter bag shall be constructed of a non-woven polypropylene filter geotextile fabric with a minimum weight of 4 oz./yd.^{2}, a minimum flow rate of 145 gal./min./ft.^{2}, and designed for a minimum silt and debris capacity of 2 cu. ft. The filter bag shall be reinforced with a polyester mesh fabric with a minimum weight of 4 oz./yd.^{2} and shall be fitted with a hydrocarbon removal pillow. The hydrocarbon removal pillow shall be hemmed around the entire perimeter of the sediment bag and extend a minimum of four inches towards center. The pillow shall have the capacity to adsorb a minimum seven times its own weight of hydrocarbon-based pollutants. *Curb boxes shall be fitted with a separate pillow, meeting the same requirements, that extends the full width of the box.* The filter bag shall be suspended from a galvanized steel ring, or frame, conforming to ASTM-A36, utilizing a stainless steel band and locking clamp. The frame shall be designed with an overflow feature to prevent any ponding during heavy rainfall.

PART 3 MEASUREMENT AND PAYMENT

3.01 INLET FILTER SYSTEM

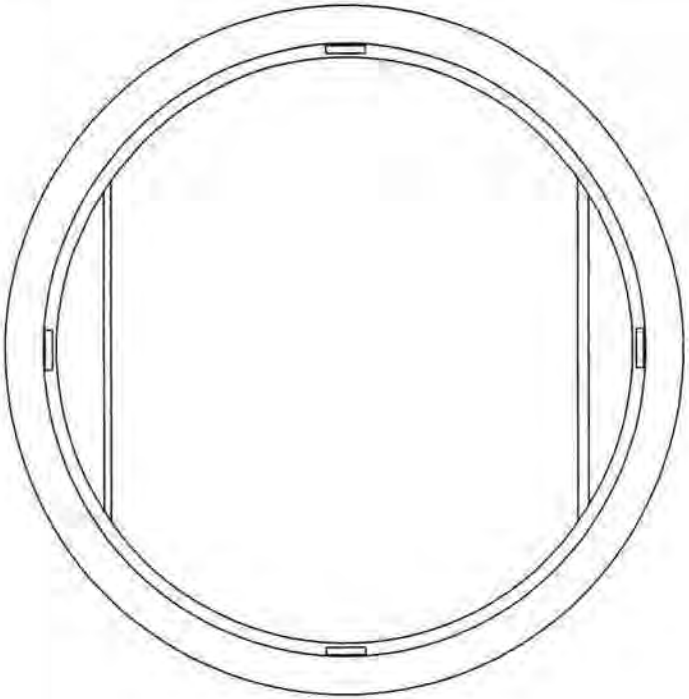
All costs for furnishing and installing the inlet filter system HR shall be included in the unit bid price. Periodic cleaning and new bags shall be paid for separately.

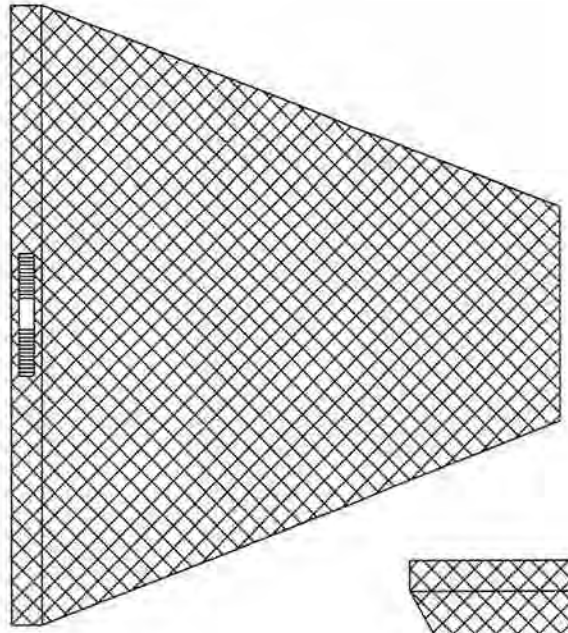


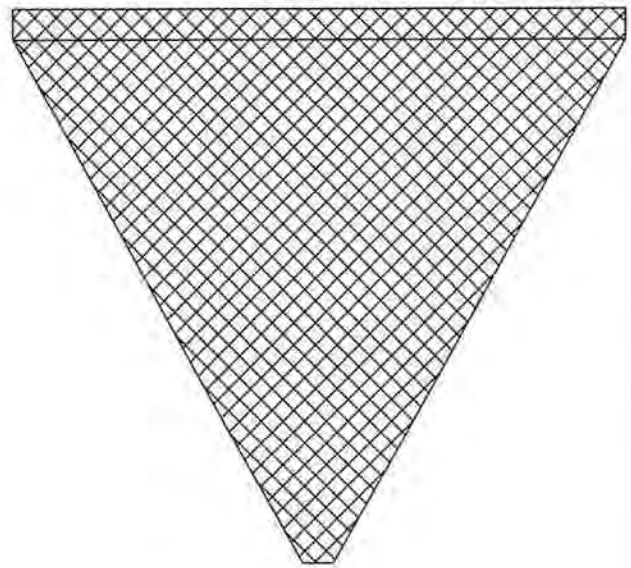


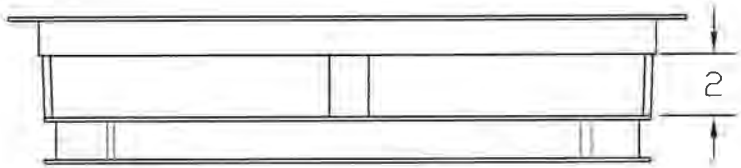
This detail depicts the typical placement of the HR (hydrocarbon removal) pillow. An HR pillow is hemmed to the entire perimeter of the sediment bag +/- 4" from the top of the bag and extends +/- 4" towards center. Curb boxes are protected with a separate pillow that is secured to either the curb box vanes or the top flange of the Catch-All frame.

DATE	REVISIONS	Catch-All HR Adsorbent Pillow
5.12.04	Original	
		Marathon Materials, Inc.







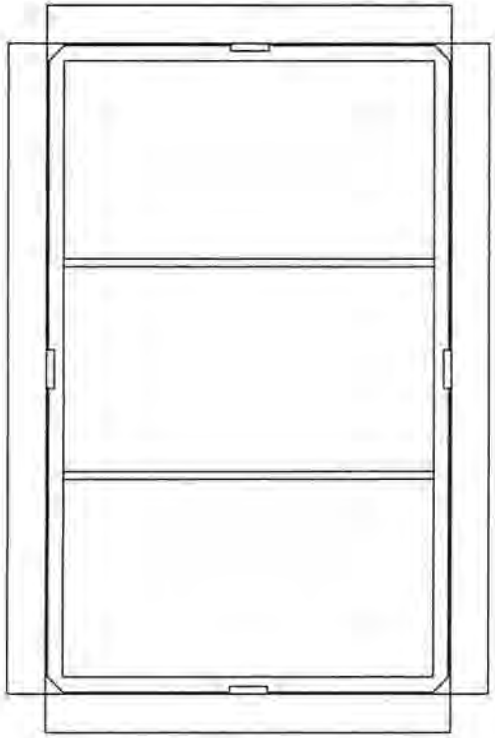


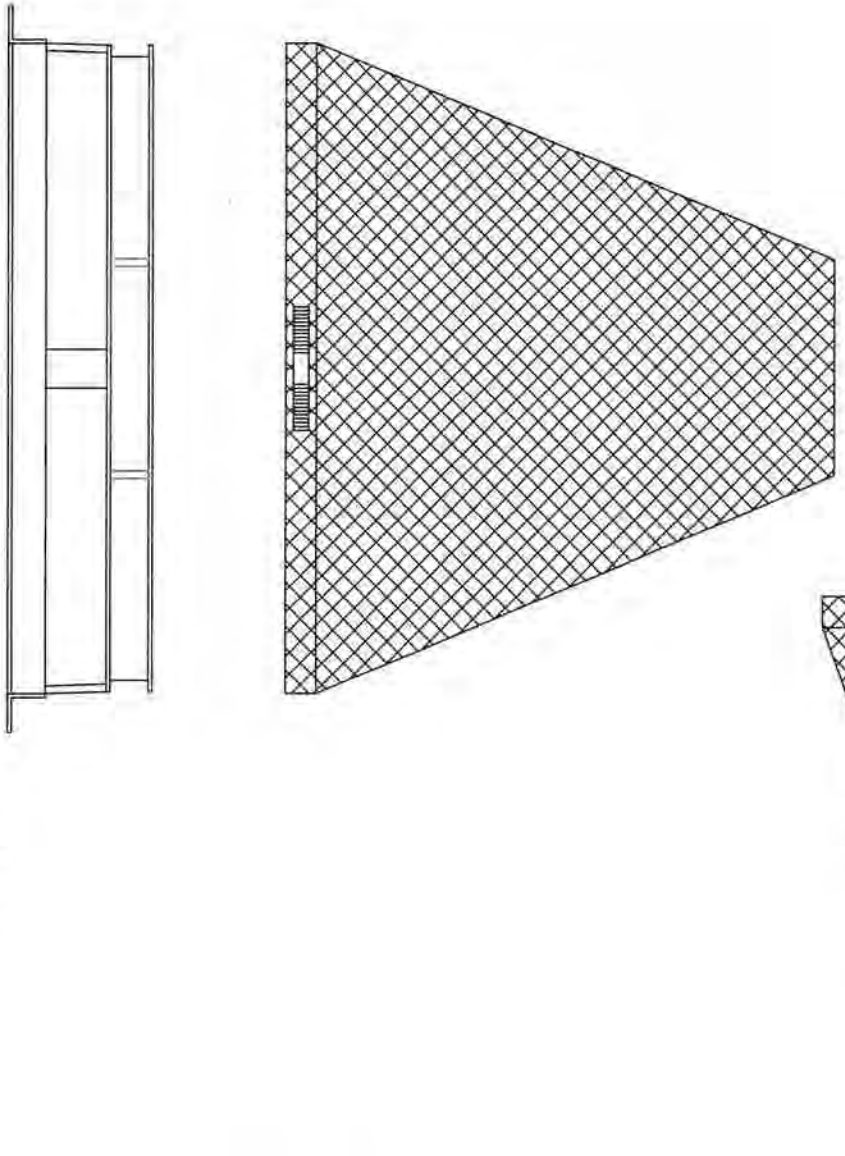
GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS
01-11-02	Original

Typical Round Catch-All

Marathon Materials, Inc.



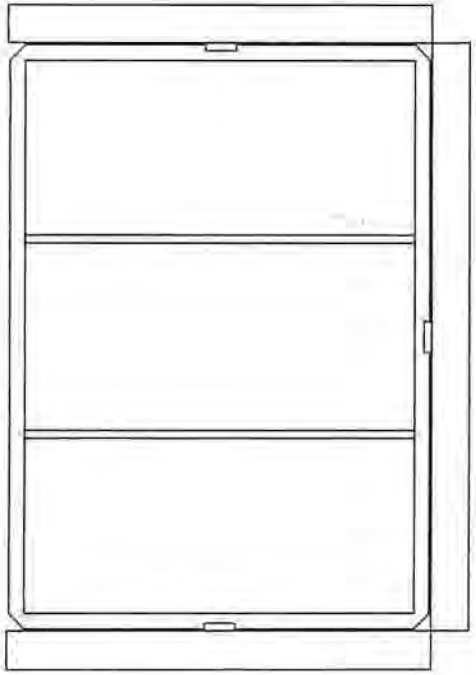


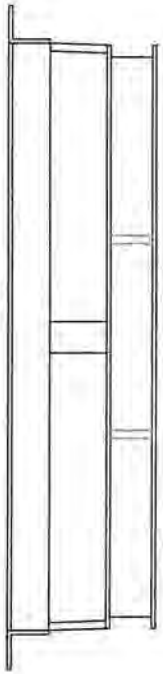
GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

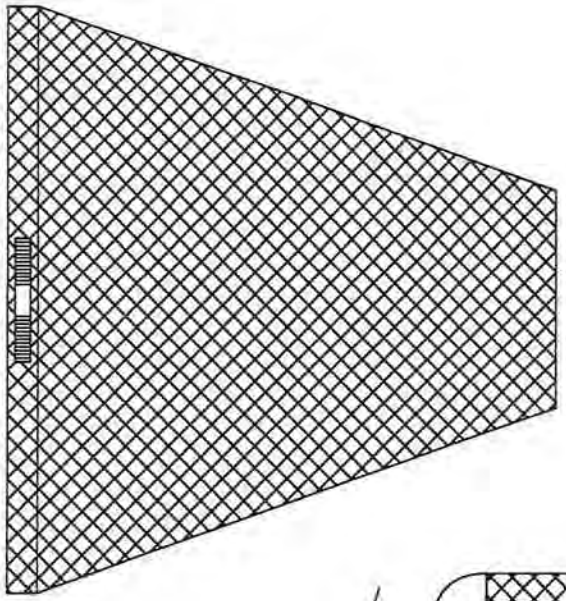
DATE	REVISIONS
01-22-02	Original

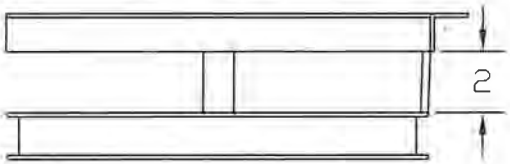
Typical Rectangular Catch-All

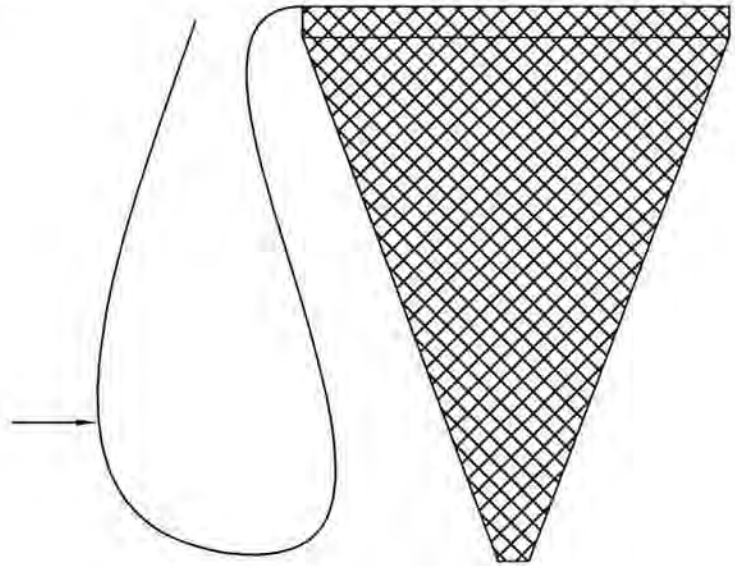
Marathon Materials, Inc.











GENERAL NOTES:
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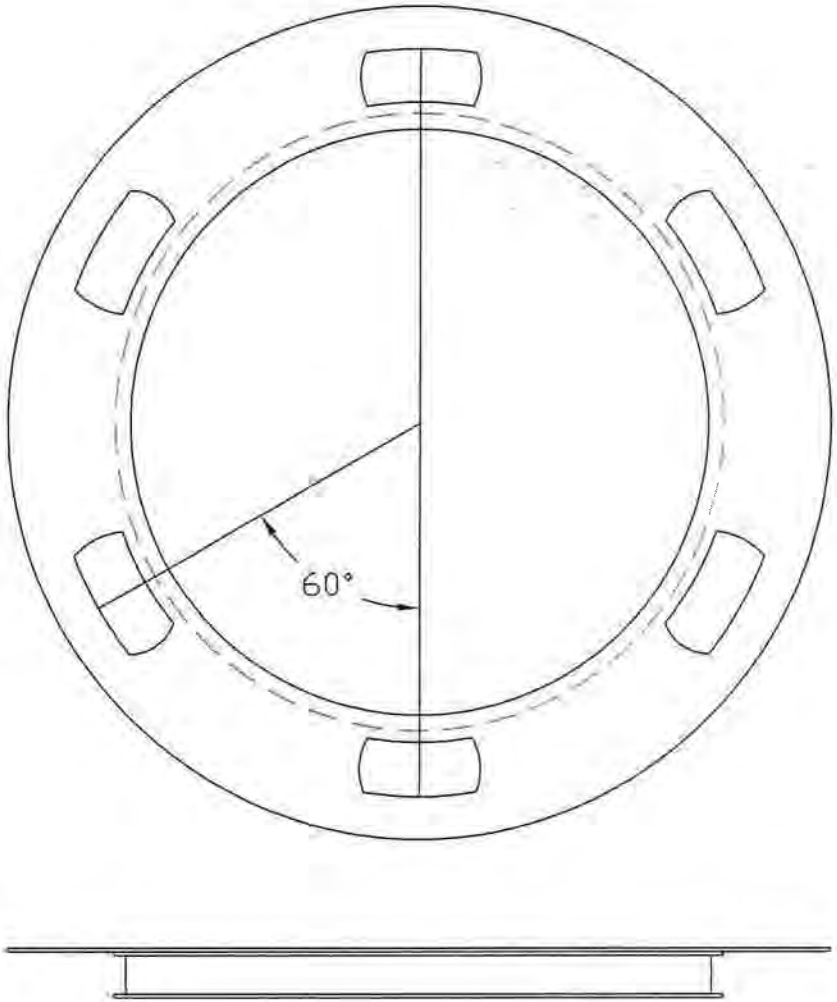
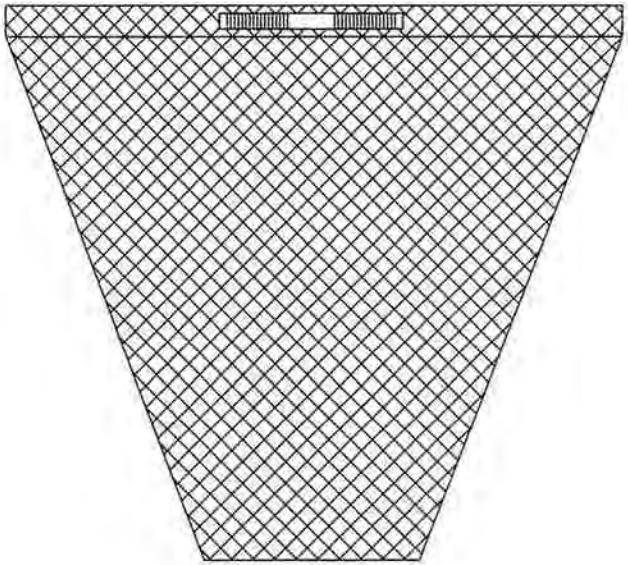
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS
01-11-02	Original
05-07-04	Remove Back Rail

Typical Curb Box
Catch-All

Marathon Materials, Inc.





GENERAL NOTES:
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SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS	
01-22-02	Original	Typical Beehive Catch-All
		Marathon Materials, Inc.

MMI

Catch-All Inlet Protector

INLET FILTER SYSTEM MATERIALS

I. Non-Woven Polypropylene Filter Geotextile

Property	Test Method	Units	Minimum Average Roll Value (English)
Grab Tensile Strength	ASTM-D-4632	lbs	100
Grab Tensile Elongation	ASTM-D-4632	%	50
Mullen Burst	ASTM-D-3786	psi	225
Puncture	ASTM-D-4833	lbs	65
Trapezoidal Tear	ASTM-D-4533	lbs	45
UV Resistance	ASTM-D-4355	% @ hrs	70 @ 500
Hydraulic			
Apparent Opening Size	ASTM-D-1420	US Sieve	70
Permittvity	ASTM-D-4491	Sec. – 1	2.0
Flow Rate	ASTM-D-4491	Gal/min/ft²	145

II. Reinforcing Polyester Outer Mesh Fabric

Property	Test Method	Value
Content	ASTM-D-629	Polyester
Weight (oz/yd²)	ASTM-D-3776	4.55 ± 15%
Whales (holes) inch	ASTM-D-3887	7.5 ± 2
Chorses (holes) inch	ASTM-D-3887	15.5 ± 2
Instronball Burst (psi)	ASTM-D-3887	120 min
Thickness	ASTM-D-1777	.040 ± .005

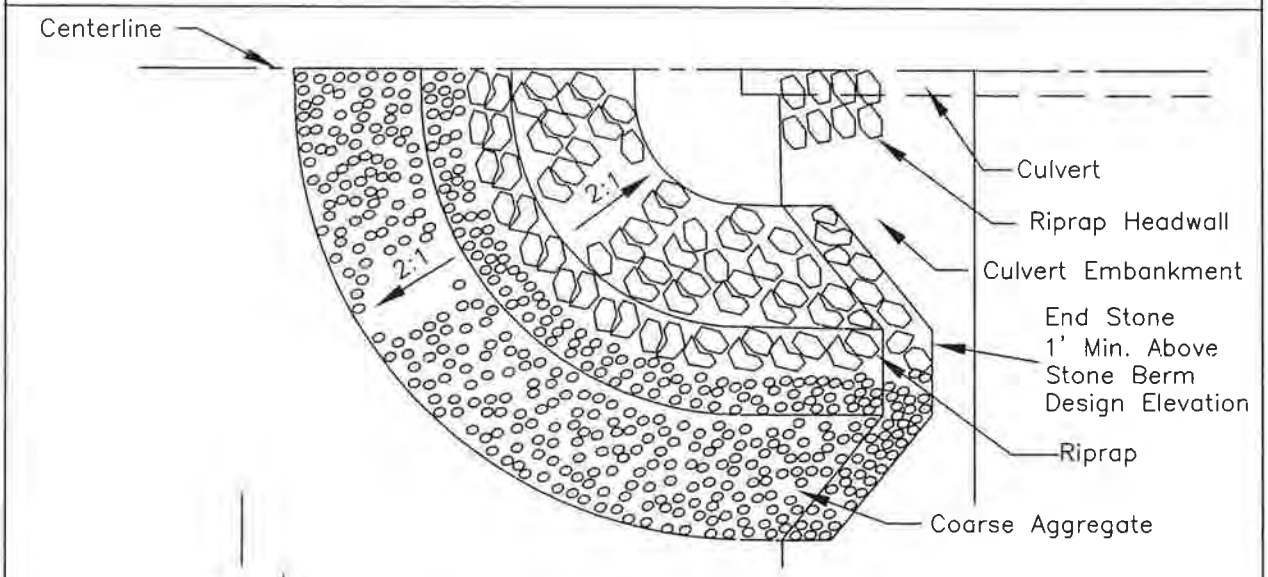
III. HR (*Hydrocarbon Removal*) Pillow Capacities

HR Pillow - 2.6 oz. Adsorbent/lf.

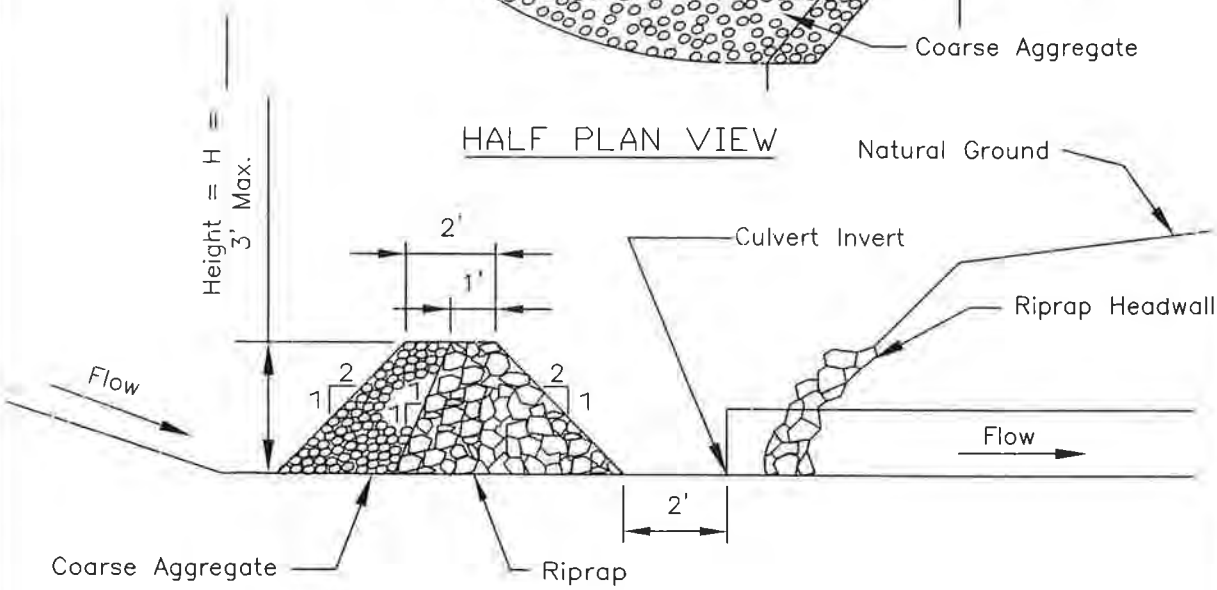
Type of Oil	Capacity by Weight – Oil / Adsorbent
Diesel	10:1
Fuel Oil	9:1
Machine Oil	8:1
30W Motor Oil	7:1

All capacities are rounded down

CULVERT INLET PROTECTION - STONE



HALF PLAN VIEW



CENTERLINE CROSS SECTION

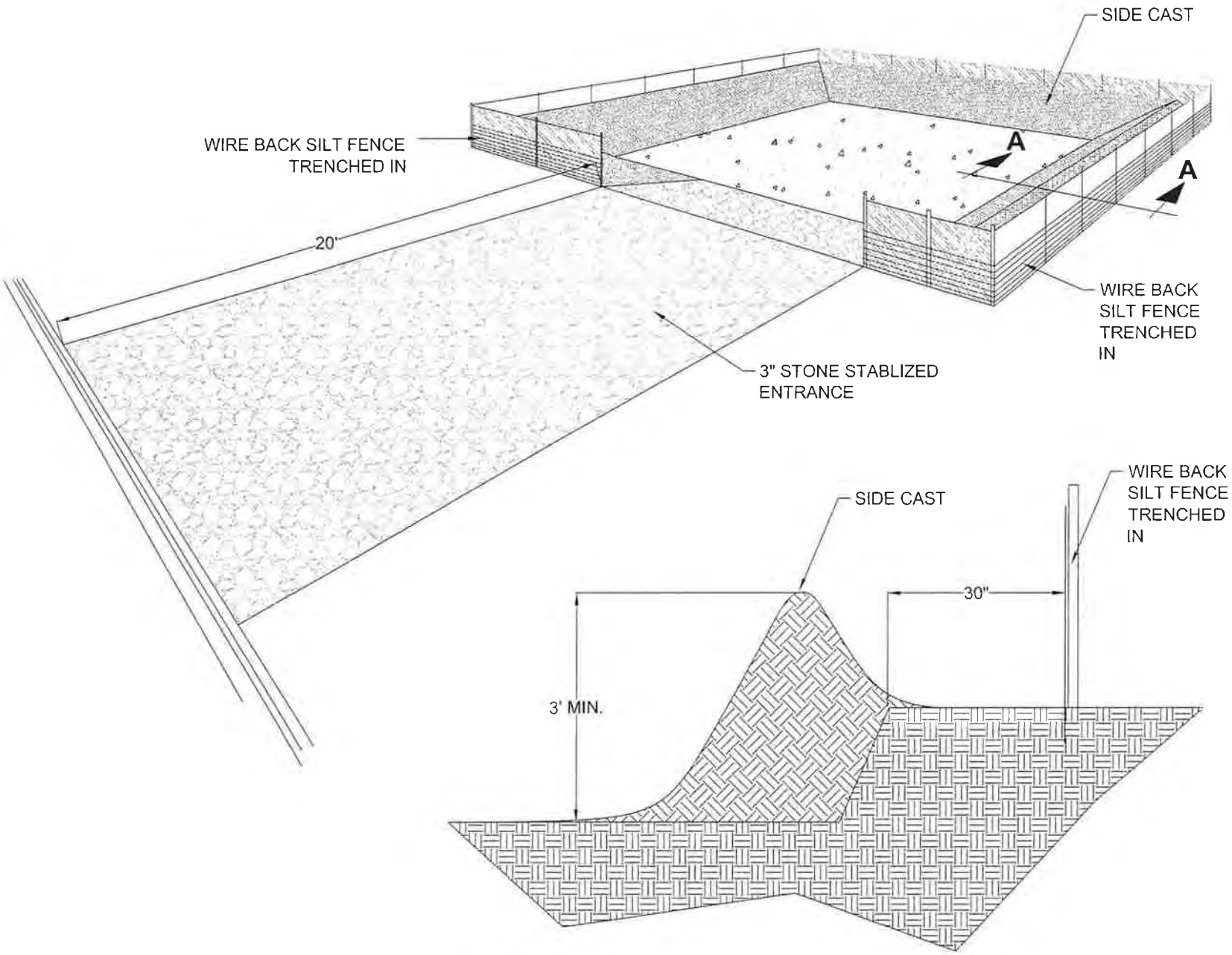
Notes:

1. Sediment shall be removed when the sediment has accumulated to one-half the height of the stone berm.
2. Coarse aggregate shall meet one of the following IDOT coarse aggregate gradations, CA-1, CA-2, CA-3 or CA-4.
3. Riprap shall meet IDOT gradation RR-3 or RR-4. Any permanent riprap, such as for the culvert headwall, shall meet IDOT Quality Designation A.
4. Coarse aggregate and riprap shall be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
5. The maximum drainage area to the culvert being protected is 3 acres.
6. See plans for H dimension.
7. Tie the stone berm into the culvert embankment a minimum of 1 foot above the design elevation of the stone berm.

REFERENCE		
Project		
Designed	Date	
Checked	Date	
Approved	Date	

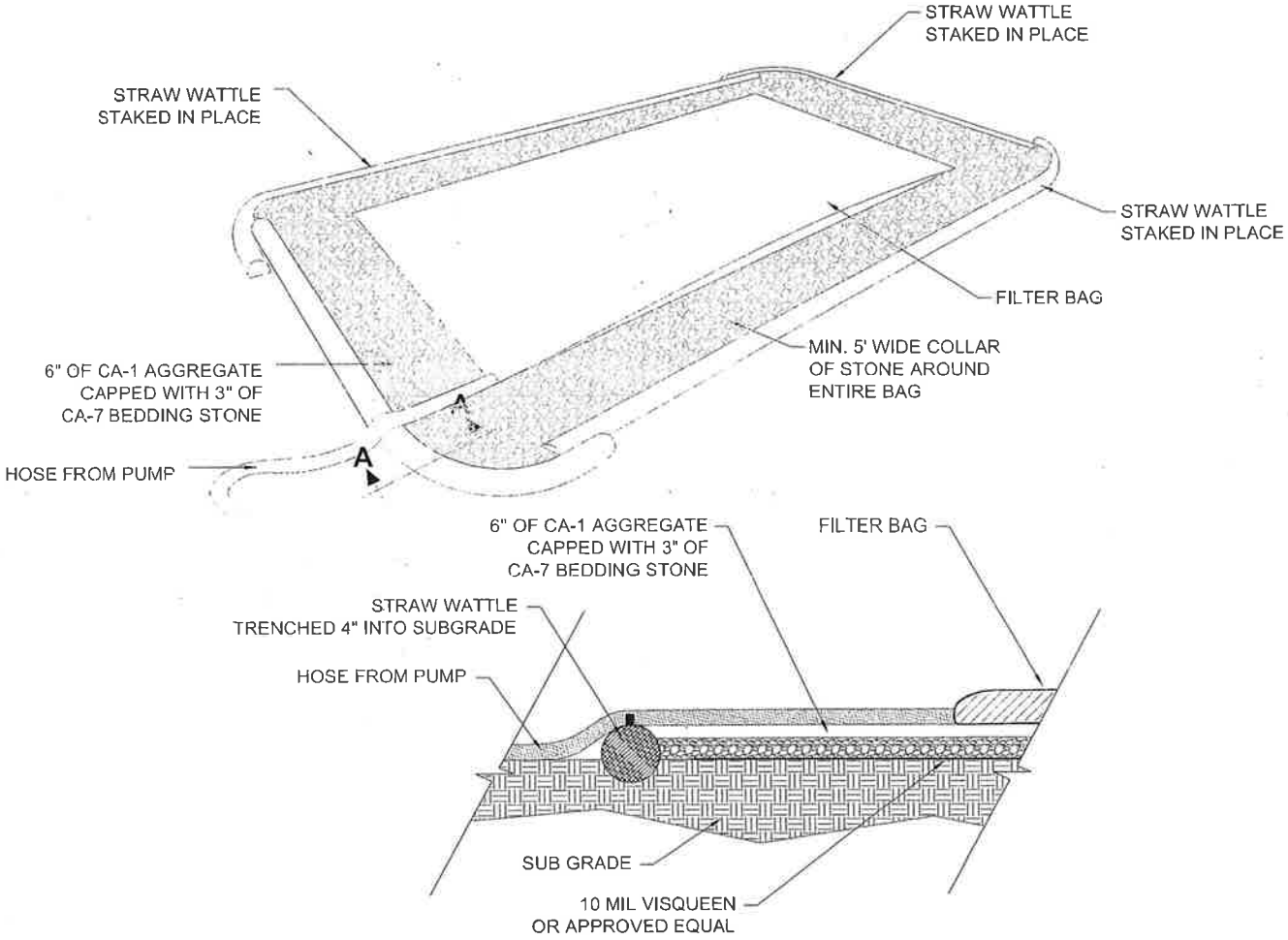
NRCS
Natural Resources Conservation Service

STANDARD DWG. NO.
IL-508ST
SHEET 1 OF 1
DATE 1-29-99



SECTION 'A'

CONCRETE WASH OUT BASIN

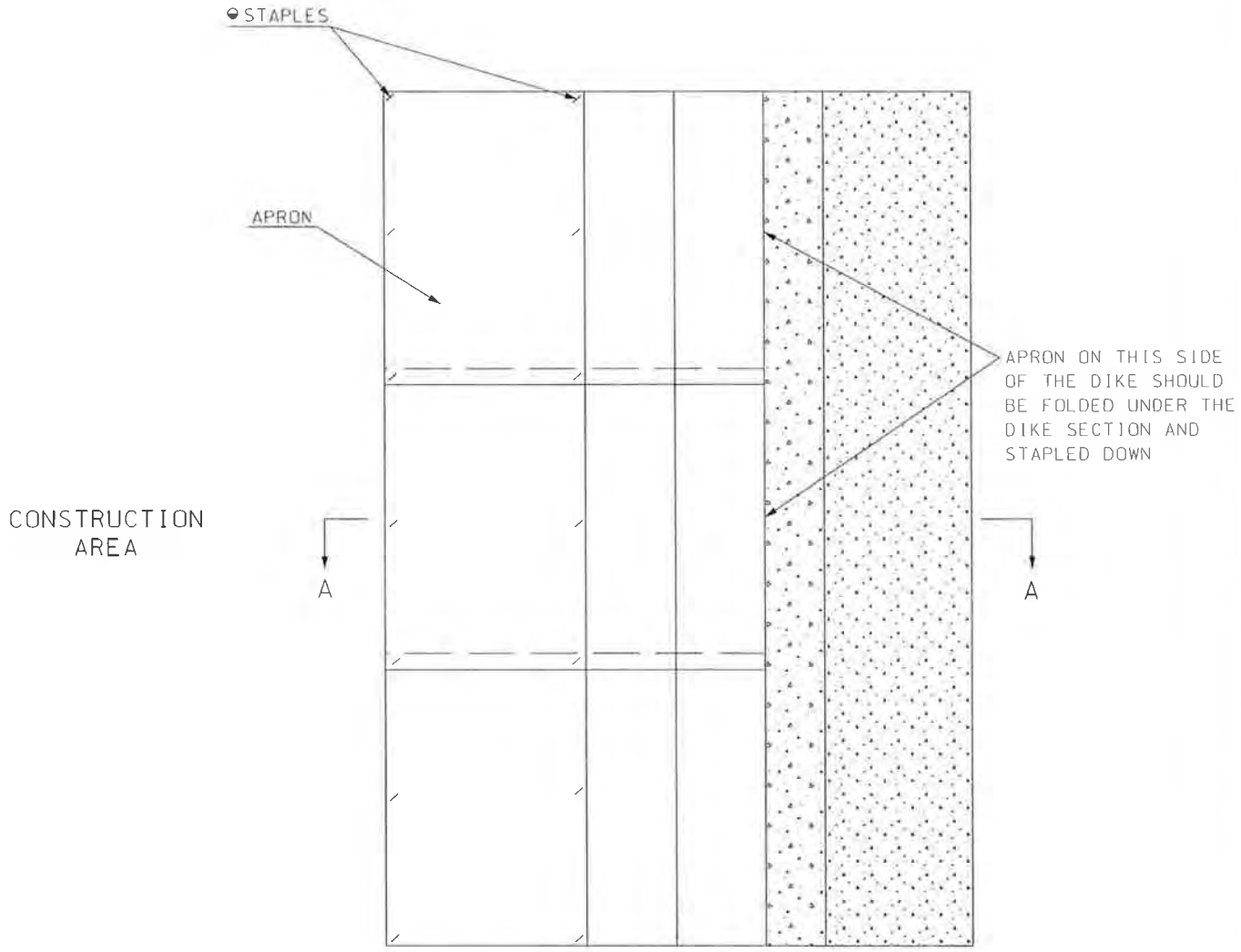


SECTION 'A'

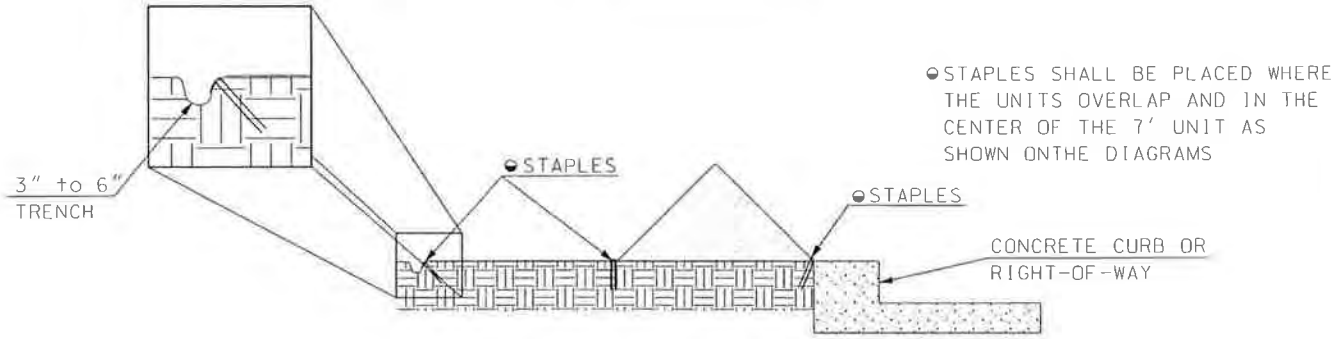
NOTES:
(1) ACTUAL SIZE AND LAYOUT DETERMINED IN THE FIELD
(2) PUMP INTAKE HEAD SHOULD BE FLOATED AT SURFACE OR PLACED IN A STABILIZED SUMP PIT

DEWATERING FILTER PAD

TRIANGULAR SILT DIKE INSTALLATION FOR CONTINUOUS BARRIER

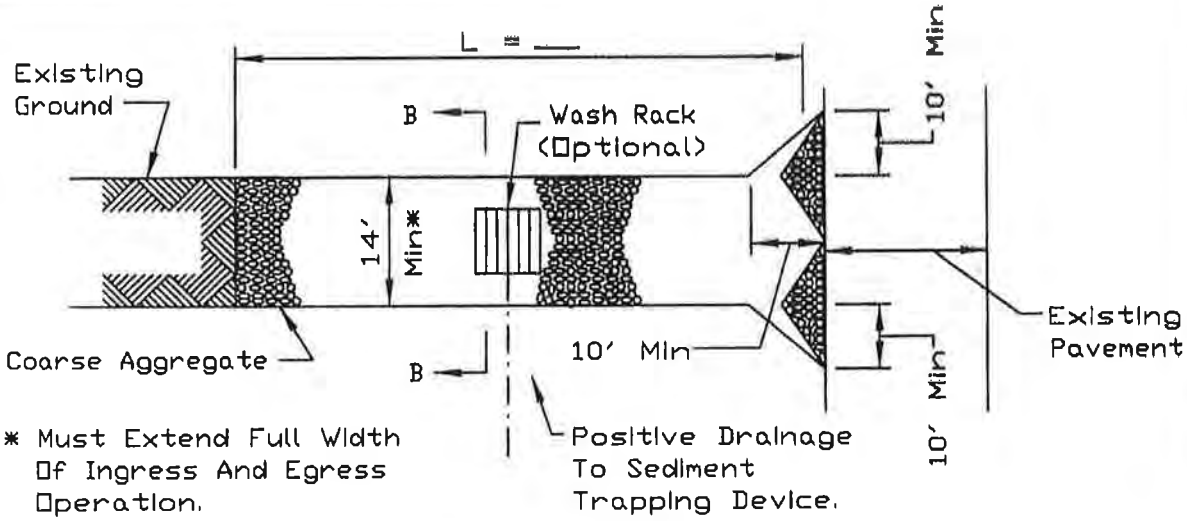


DIKE SECTION

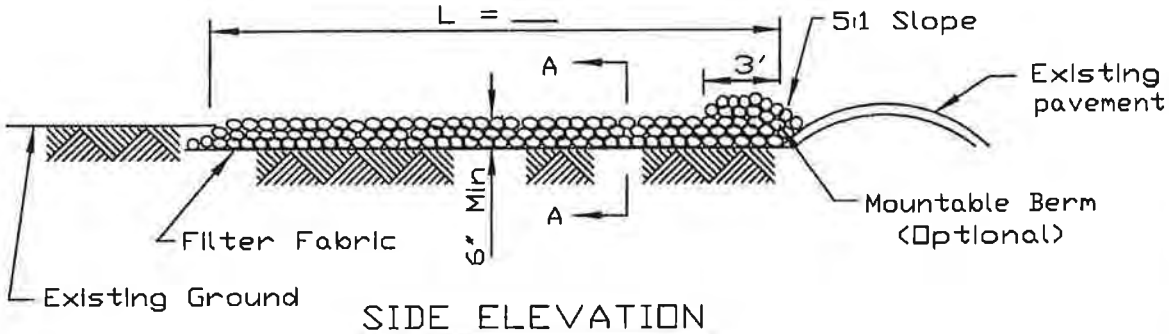


DETAIL A-A

STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



SIDE ELEVATION

NOTES:

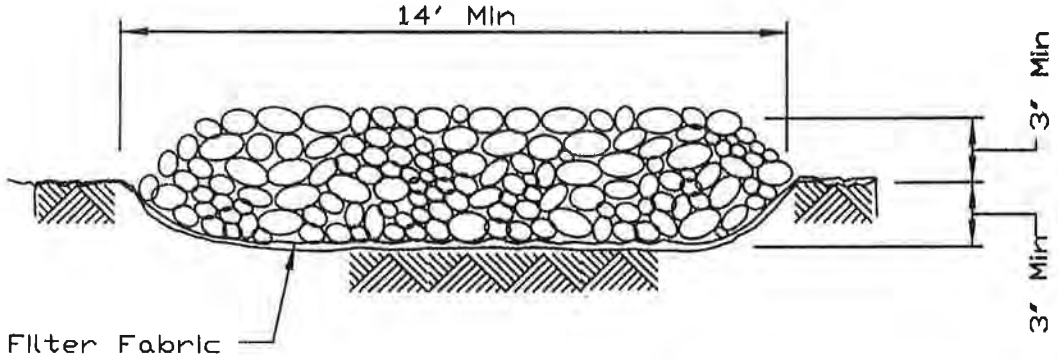
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE			
Project			
Designed		Date	
Checked		Date	
Approved		Date	

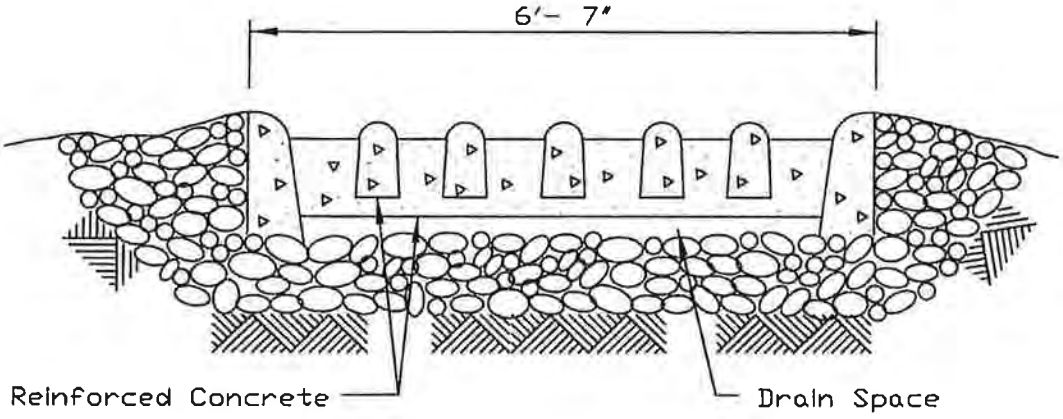
NRCS
Natural Resources Conservation Service

STANDARD DWG. NO.
IL-630
SHEET 1 OF 2
DATE 8-18-94

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



SECTION B-B

REFERENCE			
Project			
Designed		Date	
Checked		Date	
Approved		Date	

NRCS
Natural Resources Conservation Service

STANDARD DWG. NO.
IL-630
SHEET 2 OF 2
DATE 8-18-94

Illinois Urban Manual

PRACTICE STANDARD

STABILIZED CONSTRUCTION ENTRANCE

CODE 630

DEFINITION

A stabilized pad of aggregate underlain with filter fabric located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area.

PURPOSE

The purpose of this standard is to reduce or eliminate the tracking of sediment onto public right-of-ways or streets.

CONDITIONS WHERE PRACTICE APPLIES

A stabilized construction entrance shall be used at all points of construction ingress and egress.

CRITERIA

Stabilized construction entrance shall meet the following requirements:

Aggregate size - IDOT coarse aggregate gradations: CA-1, CA-2, CA-3, or CA-4.

Thickness - 6 inches or more.

Stone placement - The stone entrance for the entrance shall be placed according to construction specification 25 ROCKFILL. Placement will be by Method 1 and compaction will be class III.

Width - 14 feet minimum but not less than the full width of ingress or egress points.

Length - As required, but not less than 70 feet, except on a single residence lot where a 30 feet minimum shall apply.

Filter fabric shall be used under the aggregate to minimize the migration of stone into the underlying soil by heavy vehicle loads. The filter fabric shall meet the requirements of materials specification 592 GEOTEXTILE Table 1 or 2, class I, II, or IV.

All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.

Washing - If conditions on the site are such that the vehicles traveling over the gravel do not remove the majority of the mud, then the tires of the vehicles must be washed before entering a public road. Wash water must be carried away from the entrance to a sediment trapping facility such as practice standards IMPOUNDMENT STRUCTURE-ROUTED 842 or TEMPORARY SEDIMENT TRAP 960. All sediment shall be prevented from entering storm drains, ditches, watercourses, or surface waters including wetlands. A wash rack may be used to make washing more convenient and effective.

Location - the washing station should be located to provide for maximum utility by all construction vehicles.

Timing - the graveled access shall be installed as soon as practical after the start of site disturbance.

Removal - the entrance shall remain in place and be maintained until the disturbed area is stabilized by permanent best management practices.

CONSIDERATIONS

Improperly planned and maintained construction entrances can become a continual erosion problem.

The tracking of mud from active building sites onto paved roads by construction vehicles can be greatly reduced, and in some cases eliminated, by the use of a stabilized construction entrance. These entrances provide an area where mud can be removed from construction vehicle tires before they enter a public road.

If the action of the vehicle tires traveling over the stone is not sufficient to remove the majority of the mud, then the tires must be washed before the vehicle enters a public road. When washing is required it shall be done on an area stabilized with aggregate, or using a wash rack underlain with gravel. Provisions shall be made to intercept the wash water and trap the sediment before it is

carried off-site. Construction entrances should be used in conjunction with the stabilization of construction roads, and other exposed areas, to reduce the amount of mud picked up by construction vehicles.

PLANS AND SPECIFICATIONS

Plans and specifications for installing stabilized construction entrances shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

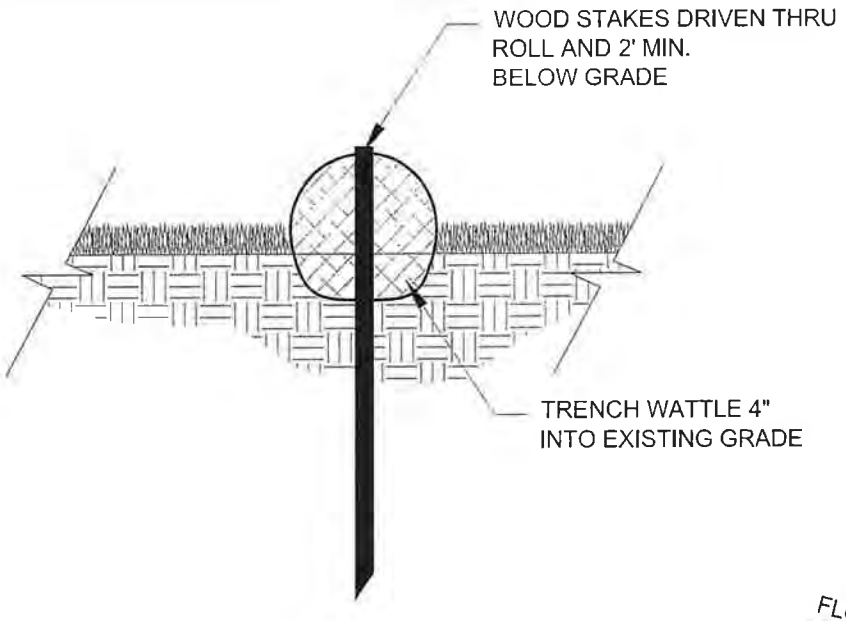
1. Location
2. Length
3. Width
4. Thickness
5. Type of materials

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

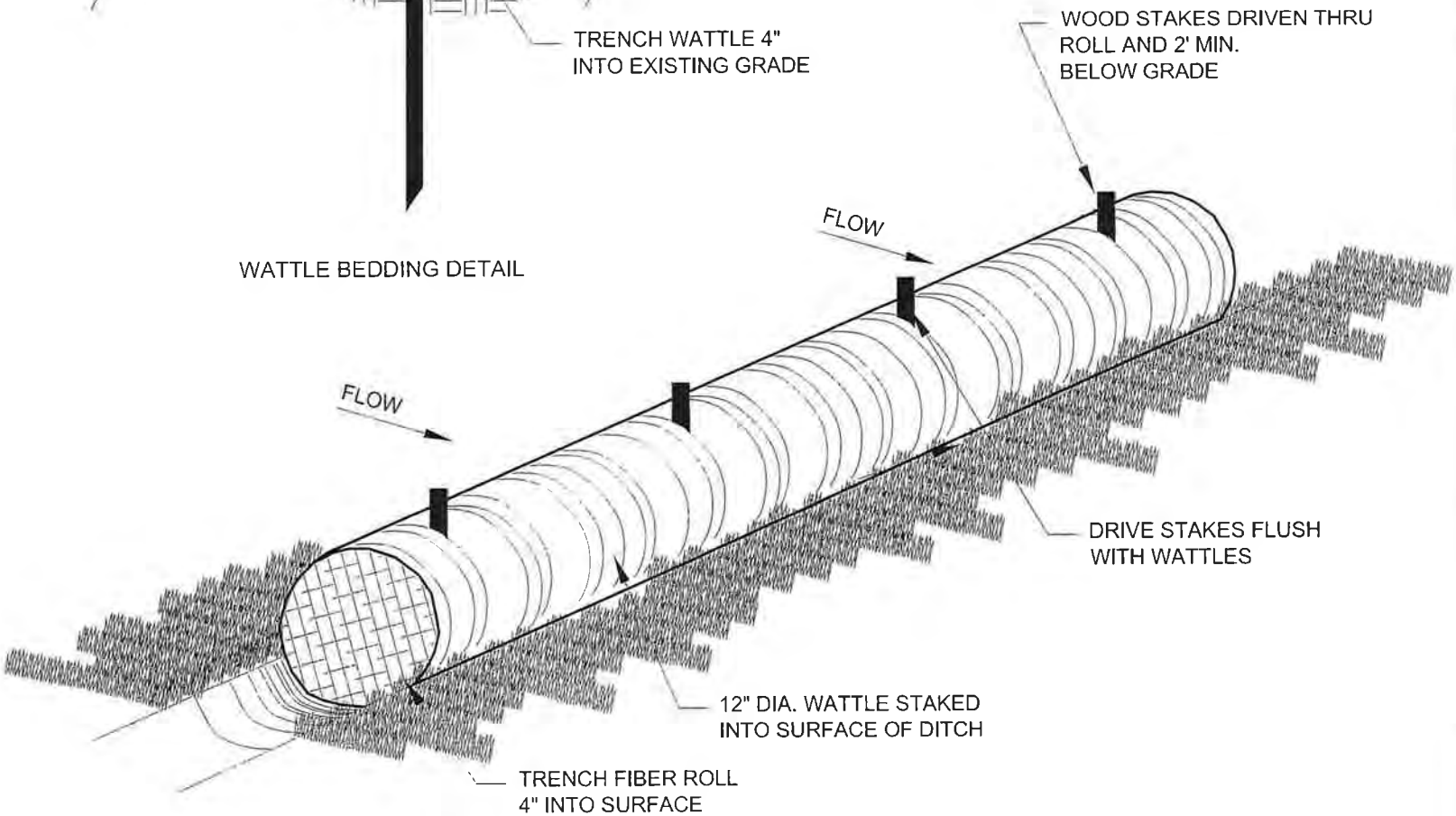
Standard drawing STABILIZED CONSTRUCTION ENTRANCE PLAN IL-630 may be used as the plan sheet.

OPERATION AND MAINTENANCE

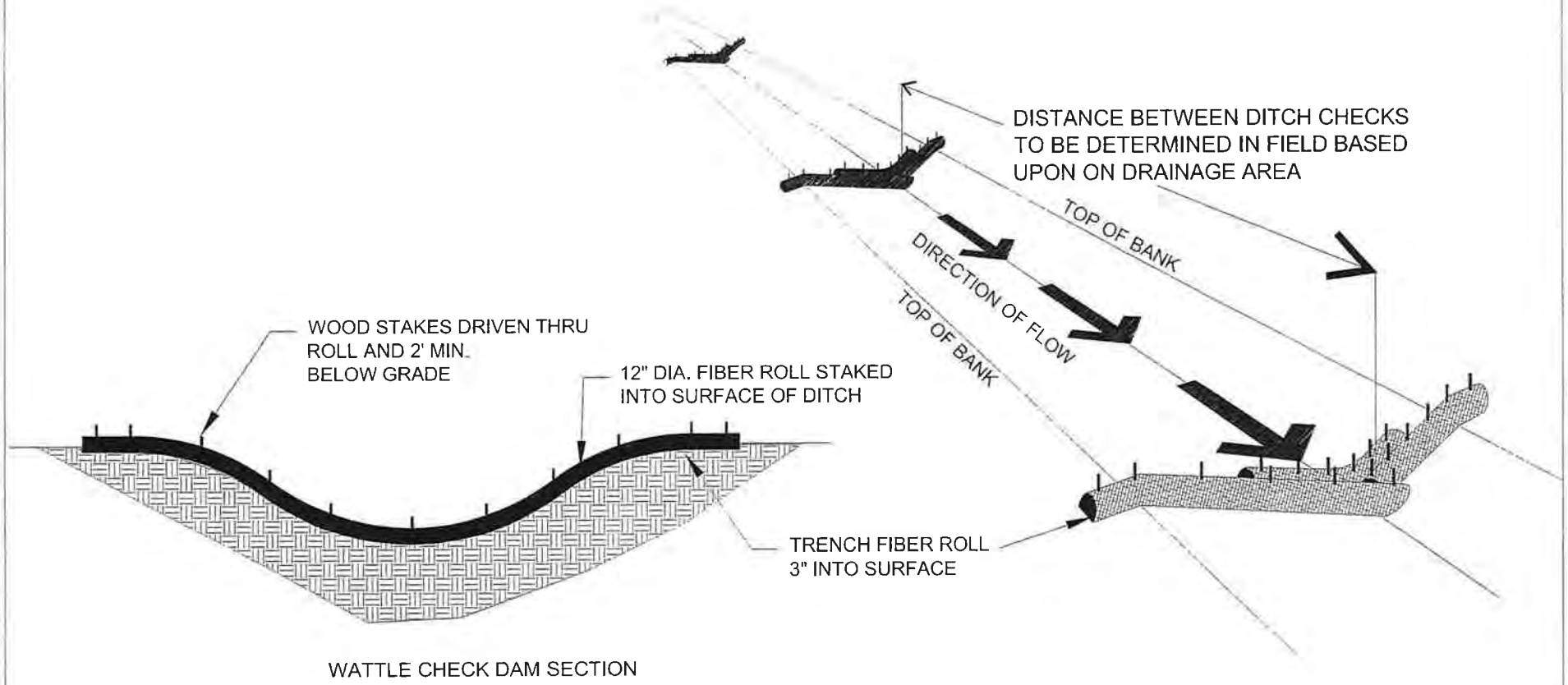
The entrance shall be maintained in a condition that will prevent tracking of sediment onto public right-of-ways or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public right-of-ways must be removed immediately. Periodic inspection and needed maintenance shall be provided after each rain.



WATTLE BEDDING DETAIL

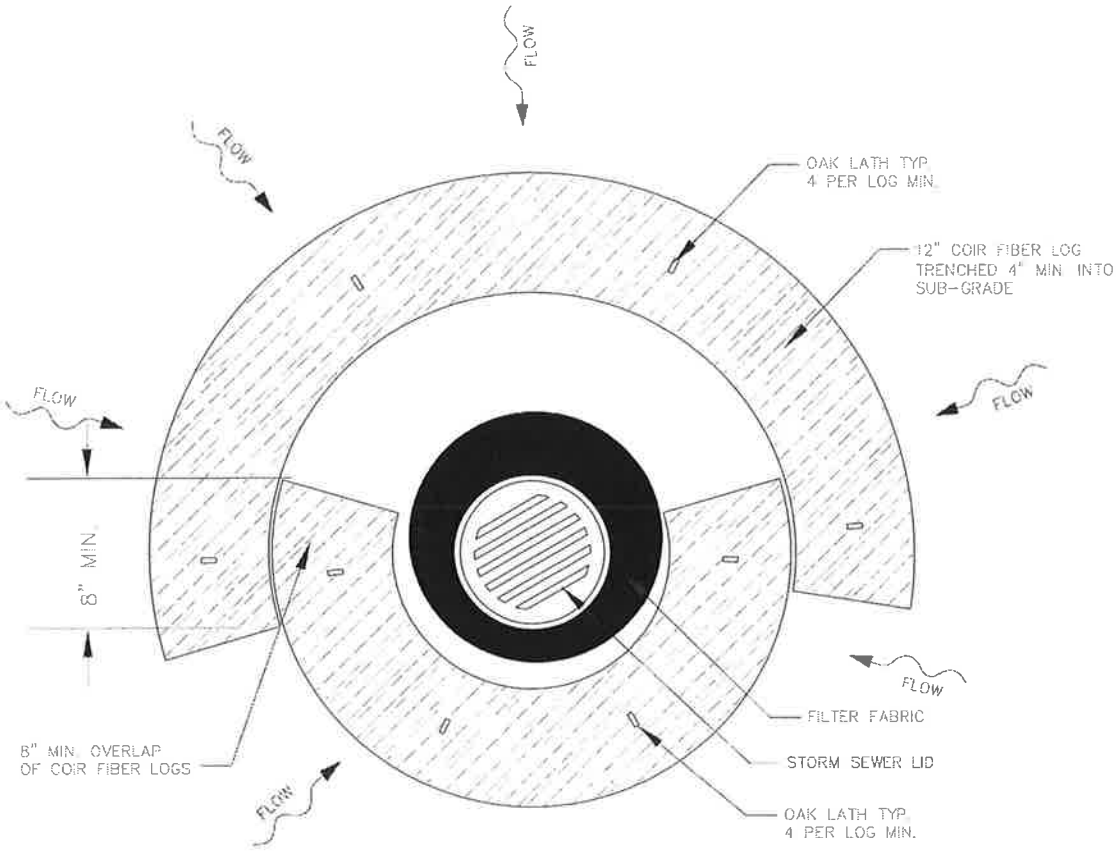


WATTLE BARRIER PLAN



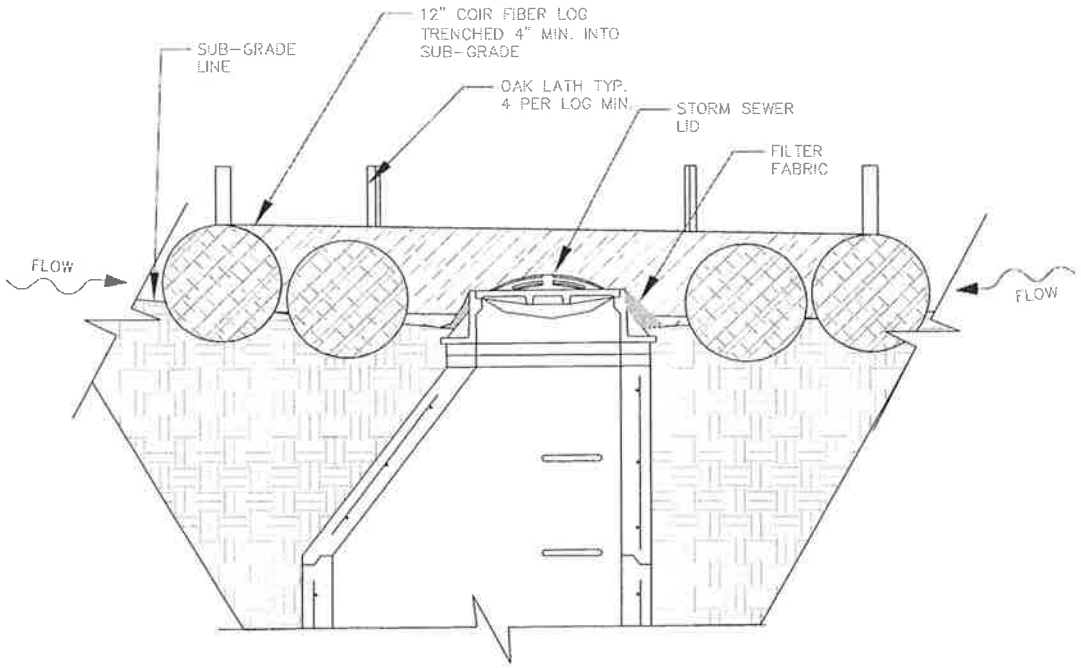
WATTLE CHECK DAM SECTION

WATTLE DITCH CHECK DETAILS



YARD GRATE INLET PROTECTION

PLAN VIEW



YARD GRATE INLET PROTECTION

SECTION

APPENDIX 16

Example Public Education and Outreach Materials

WHEN IT RAINS IT DRAINS

For more information contact:

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

EPA United States Environmental Protection Agency

EPA 833-B-03-002

January 2003

THE YEAR OF CLEAN WATER
Celebration & Recommitment

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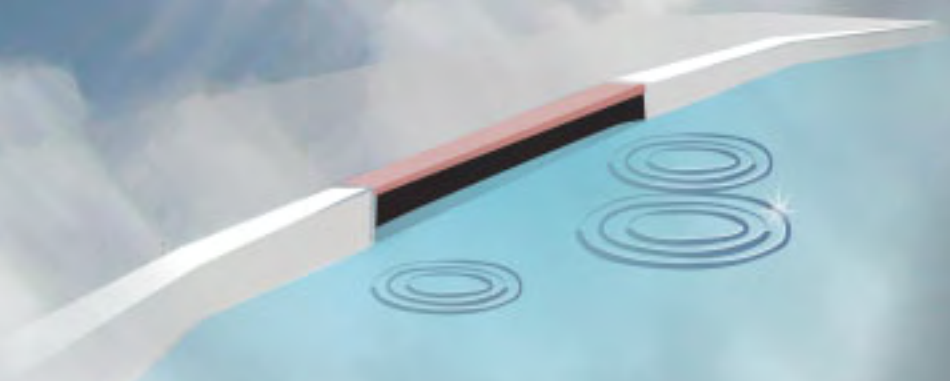
After the Storm



A Citizen's Guide to Understanding Stormwater

WHEN IT RAINS IT DRAINS

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.

- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

Stormwater Pollution Solutions

Residential

Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.

Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Septic systems

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

Rain Gardens and Grassy Swales—Specially designed areas planted with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.

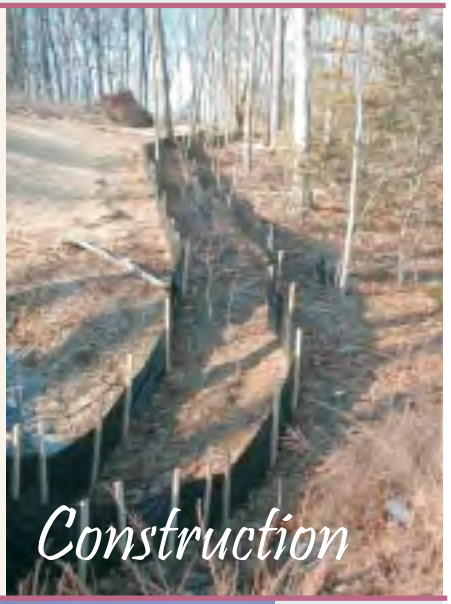
Commercial

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



Construction

Agriculture

Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

- Keep livestock away from streambanks and provide them a water source away from waterbodies.
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.

Forestry

Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.

Automotive Facilities

Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials.
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.

water flow, nearby homes may flood or experience surface ponding. *Runoff from areas as small as 1 acre can cause flooding.* Measures to remedy this kind of hazard usually require the cooperation of several homeowners.

Grade the yard so that surface water drains away from the house. A minimum grade of 1 foot in 100 feet is generally adequate. When filling in low areas, use the most permeable soil available. Save the topsoil and spread it over the newly filled and graded areas to help establish vegetation. To reduce soil compaction, limit construction traffic or use track equipment whenever possible on the lawn.

Installing roof gutters and downspouts to control roof water may prevent ponding in low yard areas. Downspouts can empty into outlet spreaders that discharge water in a thin layer over a grassy area.

Springs and Seeps...

On many sites, natural springs and seeps occur due to existing geology and landscape characteristics. Water may flow seasonally, throughout the year, or may flow into or around homes constructed over or near a spring or seep. For protection, install subsurface drains at least 4 inches in diameter surrounded by 6-12 inches of gravel or sand. Place gravel along the outside of the base of the foundation wall. Be sure to install an adequate gravity or pump outlet for the tile. An interceptor drain can divert seep or spring water before it reaches the structure.

Springs and seeps also affect lawns and onsite septic fields. You can install subsurface drains to collect groundwater and divert it. For guidance with septic field problems, contact your local health department. Typically, subsurface drains are made of plastic but older drain tile may be made of clay, concrete, or metal. Be sure to check local building codes for approved materials and other drainage regulations.

Slow Soil Permeability...

If the soil has a dense layer, especially a layer of clay or a severely compacted layer, water flow through the soil may be restricted and may cause ponding. If this layer is near the surface, use a soil aerator or deep-rooted native grass to increase infiltration and reduce surface ponding. Most lawn grasses have short root systems that only venture down a few inches. These shallow root systems dry out quickly and must be watered often. Native grass species with much deeper root systems thrive in dry weather and offer avenues for excess water to infiltrate deep into the soil rather than into your basement!

Remember to loosen the soil in the hole around the root ball when planting trees or shrubs to increase permeability which allows greater air and water movement in the soil. For larger wet areas, install subsurface drains about 4 inches in diameter at a depth of 2 to 5 feet. Use sand and gravel to backfill the drain trench to within a foot of the ground surface. Use topsoil to fill the surface layer. Restrict foot traffic during wet periods because even on well-drained soils, this can compact the soil and reduce permeability.

Where Do I Get Help?

Contact your local Natural Resources Conservation Service (NRCS), county Soil and Water Conservation District or Extension office, or your local county or municipal authorities or permit office for additional information on planning or installing drainage measures around your home. Keep in mind that local and state rules and drainage laws are different in each community and must always be considered.

The NRCS has more than 60 years of experience studying and managing the movement of soil and water. NRCS county Soil Survey reports contain valuable information for identifying the issues listed in this brochure. You can find your property on aerial photographs in the report and determine which soils make up the land you call home. Data in the soil survey identifies water table depths, drainage and permeability rates, ponding and flooding potentials, and much more.

Visit the Illinois NRCS Homepage for more information on soils and soil surveys at **www.il.nrcs.usda.gov**

September 1999 • Champaign, IL

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Drainage around your home

USDA NRCS
Natural Resources Conservation Service

Have a Drainage Problem?

Is your basement wet?
Does your yard flood or pond periodically?
Do trees, shrubs, and plants grow poorly?

Don't be surprised! About 20% of the land in the United States is affected by excess water. The good news is that there are signs for homeowners to look for, situations to avoid, and solutions that reduce drainage problems. Investigate the problem by first checking your downspouts. Downspout water should be directed away from your house. Second, grade the ground adjacent to the foundation walls so that they direct water away from the house.

If these solutions are in place, but you still have a wet basement or a sump pump that never stops running, you may have a more complex problem. If controlling surface water doesn't help, the problem may be below the surface--a high water table, spring or seeps, or abandoned subsurface agricultural tile that is draining water from other areas and directing it to your foundation. This dilemma can be dealt with by redirecting the water to new subsurface drains.

What Causes These Drainage Problems?

The soil we rely on as a foundation for our homes and property is a complex natural system. When left alone, the deep and rich prairie soils of Illinois can effectively handle normal and excessive amounts of water. But when the natural soil structure is disturbed and a high percentage of the soil surface that once absorbed water is covered with impervious surfaces and the surrounding landscape is severely altered, then the natural environment cannot cope on its own. In some newer subdivisions, all of the topsoil and part of the subsoil material is removed during construction. Only a thin layer of topsoil is returned to the site--just enough to support the shallow root system of your lawn.

These sites usually have severe problems with soil droughtiness and surface runoff. The topsoil is too thin to hold adequate amounts of water and the subsoil has been so densely compacted that it cannot allow excess water to infiltrate into it. By adding more topsoil, aerating, composting, using deep-rooted, drought-resistant grasses and plants, you can overcome these common limitations and restore the health and functionality of soil resources on your property. Generally, wetness and water problems are caused by flooding, springs and seeps, seasonal high water tables, surface ponding, or slow soil permeability.

Flooding...

If your home is in a floodplain of a nearby stream or creek, it is at risk for flooding if the stream overflows during heavy or prolonged rainfall or rapid snowmelt. Even if you've taken precautions to "flood-proof" your home, you can never totally eliminate the potential for flooding, but you can reduce flood damage.

Usually, community-wide measures are needed to reduce effects of flooding and provide some protection, but there are actions you can take to reduce problems. Making your home more resistant to flood damage may include measures that block openings such as windows and doors, regulate drain outlets, and waterproof walls. These measures can be expensive and require careful evaluation to prevent structural damage. If you plan to build a house outside a subdivision or near a perennial stream, be sure the site is not in the floodplain. Check with the local building department for floodplain maps and/or options for homeowners located in floodplains. Keep in mind that for many communities, floodplain maps may be outdated and may not adequately reflect actual conditions in the area. A building site *near* the floodplain boundary in a rapidly developing area 10 years ago, may be *in* the floodplain today.

Seasonal High Water Table...

A water table can be defined as the upper surface of groundwater or the level below which the soil is saturated with water. This level may fluctuate by several feet throughout the year, depending on soil conditions, landscape, or weather. When selecting a new homesite, consider the level of the seasonal high water table. In many areas of Illinois the seasonal high water table may be at or near the ground surface for long periods. Building in these areas should be avoided. If the water table is 6 feet deep or more, high water table problems will be minimal.

When building a new house in an area with a seasonal high water table that is less than 6 feet from the surface, a sump pump with a system of foundation drains should be used to lower the water table. Create a good outlet for discharge flow from the pump and consider where you direct this water---you don't want to create problems for a neighbor! If the home is already built, install gravel and drains around the base of outside walls. Lowering the water table under the basement floor should be done only after analysis by experts, since unequal settlement may crack the walls.

In lawn areas affected by a high water table, a small excavated pond, a wetland garden, or collection of water-loving plants may be a suitable remedy. Transform the nuisance wet area into an attractive landscaping feature. Provisions of the federal Clean Water Act or state and local laws may apply to persons who propose to alter any wetlands or to dredge, dig, or fill in floodplain areas. For clarification/information, contact the U.S. Army Corps of Engineers or IDNR's Office of Water Resources prior to any earthmoving activities.

Surface Ponding...

If a significant amount of surface water ponds on your lawn or driveway for long periods, install small diversions or swales to channel off the water. In developed residential areas, these practices are usually installed near property lines in back of or alongside houses.

For low flows of surface water, redirect water to landscaped yard areas with thirsty trees and shrubs. Be sure not to direct water onto someone else's property! If only small amounts of surface ponding occurs for short periods, drains may not be needed. Consider solving the problem by planting the area with water-loving native grasses or trees.

Even in upland areas, a continually wet basement or flooding can occur if the house is built in the path of a natural drainageway, in a pothole, or if the site is lower than the surrounding area. A drainageway or low area may look fine in dry seasons but can carry runoff water in wet seasons. In developed areas where the landscape has been greatly modified, runoff has increased and natural drainageways are often blocked or altered. If man-made drainageways or storm sewers are not built to carry this additional seasonal

EPA
United States Environmental Protection Agency

EPA 841-F-03-003

Protecting Water Quality *from* URBAN RUNOFF

Clean Water Is Everybody's Business

In urban and suburban areas, much of the land surface is covered by buildings and pavement, which do not allow rain and snowmelt to soak into the ground. Instead, most developed areas rely on storm drains to carry large amounts of runoff from roofs and paved areas to nearby waterways. The stormwater runoff carries pollutants such as oil, dirt, chemicals, and lawn fertilizers directly to streams and rivers, where they seriously harm water quality. To protect surface water quality and groundwater resources, development should be designed and built to minimize increases in runoff.

The most recent National Water Quality Inventory reports that runoff from urbanized areas is the leading source of water quality impairments to surveyed estuaries and the third-largest source of impairments to surveyed lakes.

Did you know that because of impervious surfaces like pavement and rooftops, a typical city block generates more than 5 times more runoff than a woodland area of the same size?

How Urbanized Areas Affect Water Quality

Increased Runoff

The porous and varied terrain of natural landscapes like forests, wetlands, and grasslands traps rainwater and snowmelt and allows them to filter slowly into the ground. In contrast, impervious (nonporous) surfaces like roads, parking lots, and rooftops prevent rain and snowmelt from infiltrating, or soaking, into the ground. Most of the rainfall and snowmelt remains above the surface, where it runs off rapidly in unnaturally large amounts.

Storm sewer systems concentrate runoff into smooth, straight conduits. This runoff gathers speed and erosional power as it travels underground. When this runoff leaves the storm drains and empties into a stream, its excessive volume and power blast out streambanks, damaging streamside vegetation and wiping out aquatic habitat. These increased storm flows carry sediment loads from construction sites and other denuded surfaces and eroded streambanks. They often carry higher water temperatures from streets, roof tops, and parking lots, which are harmful to the health and reproduction of aquatic life.

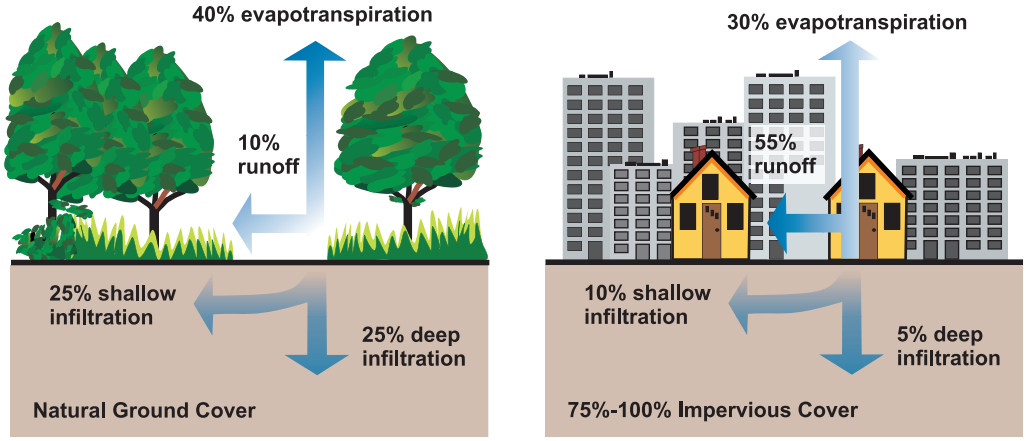
The loss of infiltration from urbanization may also cause profound groundwater changes. Although urbanization leads to great increases in flooding during and immediately after wet weather, in many instances it results in lower stream flows during dry weather. Many native fish and other aquatic life cannot survive when these conditions prevail.

Increased Pollutant Loads

Urbanization increases the variety and amount of pollutants carried into streams, rivers, and lakes. The pollutants include:

- Sediment
- Oil, grease, and toxic chemicals from motor vehicles
- Pesticides and nutrients from lawns and gardens
- Viruses, bacteria, and nutrients from pet waste and failing septic systems
- Road salts
- Heavy metals from roof shingles, motor vehicles, and other sources
- Thermal pollution from dark impervious surfaces such as streets and rooftops

These pollutants can harm fish and wildlife populations, kill native vegetation, foul drinking water supplies, and make recreational areas unsafe and unpleasant.



Relationship between impervious cover and surface runoff. Impervious cover in a watershed results in increased surface ruunoff. As little as 10 percent impervious cover in a watershed can result in stream degradation.

Managing Urban Runoff

What Homeowners Can Do

To decrease polluted runoff from paved surfaces, households can develop alternatives to areas traditionally covered by impervious surfaces. Porous pavement materials are available for driveways and sidewalks, and native vegetation and mulch can replace high maintenance grass lawns. Homeowners can use fertilizers sparingly and sweep driveways, sidewalks, and roads instead of using a hose. Instead of disposing of yard waste, they can use the materials to start a compost pile. And homeowners can learn to use Integrated Pest Management (IPM) to reduce dependence on harmful pesticides.

In addition, households can prevent polluted runoff by picking up after pets and using, storing, and disposing of chemicals properly. Drivers should check their cars for leaks and recycle their motor oil and antifreeze when these fluids are changed. Drivers can also avoid impacts from car wash runoff (e.g., detergents, grime, etc.) by using car wash facilities that do not generate runoff. Households served by septic systems should have them professionally inspected and pumped every 3 to 5 years. They should also practice water conservation measures to extend the life of their septic systems.

Controlling Impacts from New Development

Developers and city planners should attempt to control the volume of runoff from new development by using low impact development, structural controls, and pollution prevention strategies. Low impact development includes measures that conserve natural areas (particularly sensitive hydrologic areas like riparian buffers and infiltrable soils); reduce development impacts; and reduce site runoff rates by maximizing surface roughness, infiltration opportunities, and flow paths.

Controlling Impacts from Existing Development

Controlling runoff from existing urban areas is often more costly than controlling runoff from new developments. Economic efficiencies are often realized through approaches that target "hot spots" of runoff pollution or have multiple benefits, such as high-efficiency street sweeping (which addresses aesthetics, road safety, and water quality). Urban planners and others responsible for managing urban and suburban areas can first identify and implement pollution prevention strategies and examine source control opportunities. They should seek out priority pollutant reduction opportunities, then protect natural areas that help control runoff, and finally begin ecological restoration and retrofit activities to clean up degraded water bodies. Local governments are encouraged to take lead roles in public education efforts through public signage, storm drain marking, pollution prevention outreach campaigns, and partnerships with citizen groups and businesses. Citizens can help prioritize the clean-up strategies, volunteer to become involved in restoration efforts, and mark storm drains with approved "don't dump" messages.

Related Publications

Turn Your Home into a Stormwater Pollution Solution!
www.epa.gov/nps

This web site links to an EPA homeowner's guide to healthy habits for clean water that provides tips for better vehicle and garage care, lawn and garden techniques, home improvement, pet care, and more.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas
www.epa.gov/owow/nps/urbanmm

This technical guidance and reference document is useful to local, state, and tribal managers in implementing management programs for polluted runoff. Contains information on the best available, economically achievable means of reducing pollution of surface waters and groundwater from urban areas.

Onsite Wastewater Treatment System Resources
www.epa.gov/owm/onsite

This web site contains the latest brochures and other resources from EPA for managing onsite wastewater treatment systems (OWTS) such as conventional septic systems and alternative decentralized systems. These resources provide basic information to help individual homeowners, as well as detailed, up-to-date technical guidance of interest to local and state health departments.

Low Impact Development Center
www.lowimpactdevelopment.org

This center provides information on protecting the environment and water resources through integrated site design techniques that are intended to replicate preexisting hydrologic site conditions.

Stormwater Manager's Resource Center (SMRC)
www.stormwatercenter.net

Created and maintained by the Center for Watershed Protection, this resource center is designed specifically for stormwater practitioners, local government officials, and others that need technical assistance on stormwater management issues.

Strategies: Community Responses to Runoff Pollution
www.nrdc.org/water/pollution/storm/stoinx.asp

The Natural Resources Defense Council developed this interactive web document to explore some of the most effective strategies that communities are using around the nation to control urban runoff pollution. The document is also available in print form and as an interactive CD-ROM.

For More Information

U.S. Environmental Protection Agency
Nonpoint Source Control Branch (4503T)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
www.epa.gov/nps

February 2003

APPENDIX 17

Construction Site Inspection Forms

CHRISTOPHER B. BURKE ENGINEERING, LTD.
CBBEL NPDES REPORT

Date of Site Visit: _____
Date of Last Site Visit: _____
NPDES Permit No.: _____
Client: _____
Site Name: _____
CBBEL Project Number: _____
CBBEL Staff Member & Title: _____

Estimated Date of Last Significant Rain Event: _____

Response to Previous Report(s):

Erosion and Sedimentation
Minor ☐ Moderate ☐ Severe ☐ N/A ☐
Observations/Recommended Action:

Condition of Site Discharge Point(s)
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Condition of Roadways and Locations where vehicles enter or exit the site
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Silt Fence
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Inlet/Outlet Protection
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Ditch Checks/Check Dams
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Concrete Washouts
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

Housekeeping/Material Storage
Good ☐ Fair ☐ Poor ☐ N/A ☐
Observations/Recommended Action:

General Comments:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name & Title: _____

Signature: _____ Date: _____

PLEASE CALL IF YOU NEED ADDITIONAL INFORMATION -- PHONE: (847) 823-0500 FAX (847) 823-0520

NPDES Site Audit Report for ILR10

General Information			
Project Name			Approximate Acreage
Operator			
Project Location			
Date of Site Visit		NPDES Permit No. ILR10	
Observer's Name(s) & Title(s)			
Construction phase(s) at time of visit	☐ Pre-Construction ☐ Vertical Construction ☐ Post Construction	☐ Land Development ☐ Roadway Construction ☐ Other: _____	

Type of Site Visit:

☐ Initial Visit ☐ Follow-up ☐ Other: _____

Weather Information

Weather conditions during the site visit:

SWPPP/Soil Erosion and Sediment Control (SESC) Plan

1. Has the SWPPP been updated/amended as required by the NPDES Permit and/or local requirements? ☐ Yes ☐ No ☐ N/A
2. Is the Operator Certification Form signed and maintained with SWPPP? ☐ Yes ☐ No ☐ N/A
3. Are Contractor Certification Forms signed and maintained with SWPPP? ☐ Yes ☐ No ☐ N/A
4. Have inspection reports been completed and signed every 7 calendar days and after ≥0.5 inch precipitation events? ☐ Yes ☐ No ☐ N/A

SWPPP/SESC Plan Comments: _____

Site Observations – Describe Location and Recommend Corrective Measures Below

No.	BMP/Activity	Implemented & Maintained
1	Are discharge points and receiving waters free of sediment deposits and other pollutants (from the construction site)?	☐ Yes ☐ Action Item ☐ N/A
2	Have BMPs specified in the SWPPP been installed and maintained?	☐ Yes ☐ Action Item ☐ N/A
3	Are stabilized entrances installed and are adjacent roads clear of sediment?	☐ Yes ☐ Action Item ☐ N/A
4	Are outlets protected/stabilized?	☐ Yes ☐ Action Item ☐ N/A
5	Have stormwater management systems been constructed, stabilized, and verified to be functioning appropriately?	☐ Yes ☐ Action Item ☐ N/A
6	Are Special Management Areas (e.g., creeks, wetlands, buffers, etc.) adequately protected?	☐ Yes ☐ Action Item ☐ N/A
7	Are storm drain inlets adequately protected?	☐ Yes ☐ Action Item ☐ N/A
8	Have all idle, disturbed areas been stabilized within 14 days of cessation of construction activities in that area (or more restrictive time period per local ordinance requirement)?	☐ Yes ☐ Action Item ☐ N/A
9	Are erodible stockpiles (e.g., topsoil) properly located and adequately protected?	☐ Yes ☐ Action Item ☐ N/A
10	Are washout facilities (e.g., concrete washouts, etc.) available and maintained?	☐ Yes ☐ Action Item ☐ N/A
11	Is waste, including building materials and construction debris, collected and placed in approved receptacles?	☐ Yes ☐ Action Item ☐ N/A
12	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ Action Item ☐ N/A
13	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other potential pollutants?	☐ Yes ☐ Action Item ☐ N/A
14	Are portable toilets, material storage areas, and materials that are potential stormwater contaminants managed appropriately?	☐ Yes ☐ Action Item ☐ N/A
15	Other, based on site conditions:	☐ Yes ☐ Action Item ☐ N/A

No.	Location and Recommended Corrective Measure

General Notes and Comments: _____

NPDES Site Audit Report for ILR40

General Information			
Project Name			Approximate Acreage
Operator			
Project Location			
Date of Site Visit		NPDES Permit No. ILR10 (If Applicable)	
Observer's Name(s) & Title(s)			
Construction phase(s) at time of visit	☐ Pre-Construction ☐ Vertical Construction ☐ Post Construction	☐ Land Development ☐ Roadway Construction ☐ Other:	

Type of Site Visit:

☐ Initial Visit ☐ Follow-up ☐ Other: _____

Weather Information

Weather conditions during the site visit:

SWPPP/Soil Erosion and Sediment Control (SESC) Plan

1.	Is an NPDES Permit required for construction site activities? (e.g., Does the construction activity disturb ≥ 1 acre?)	☐ Yes ☐ No ☐ N/A
2.	Is the SWPPP on site (or accessible with location posted)?	☐ Yes ☐ No ☐ N/A
3.	Is the SWPPP/SESC Plan updated/amended as required by the NPDES Permit and/or local requirements?	☐ Yes ☐ No ☐ N/A
4.	Are Operator and Contractor Certification Forms signed and maintained with SWPPP?	☐ Yes ☐ No ☐ N/A
5.	Have inspection reports been completed and signed every 7 calendar days and after ≥0.5 inch precipitation events?	☐ Yes ☐ No ☐ N/A

SWPPP/SESC Plan Comments: _____

Site Observations – Describe Location and Recommend Corrective Measures Below

No.	BMP/Activity	Implemented & Maintained
1	Are discharge points and receiving waters free of sediment deposits and other pollutants (from the construction site)?	☐ Yes ☐ Action Item ☐ N/A
2	Have BMPs specified in the SWPPP been installed and maintained?	☐ Yes ☐ Action Item ☐ N/A
3	Have stabilized construction entrances been installed and are adjacent roads clear of sediment track out?	☐ Yes ☐ Action Item ☐ N/A
4	Are outlets protected/stabilized?	☐ Yes ☐ Action Item ☐ N/A
5	Have stormwater management systems been constructed, stabilized, and verified to be functioning appropriately?	☐ Yes ☐ Action Item ☐ N/A
6	Are Special Management Areas (e.g., creeks, wetlands, buffers, etc.) adequately protected?	☐ Yes ☐ Action Item ☐ N/A
7	Are storm drain inlets adequately protected?	☐ Yes ☐ Action Item ☐ N/A
8	Have all idle, disturbed areas been stabilized within 14 days of cessation of construction activities in that area (or more restrictive time period per local ordinance requirement)?	☐ Yes ☐ Action Item ☐ N/A
9	Are erodible stockpiles (e.g., topsoil) properly located and adequately protected?	☐ Yes ☐ Action Item ☐ N/A
10	Are washout facilities (e.g., concrete washouts, etc.) available and maintained?	☐ Yes ☐ Action Item ☐ N/A
11	Is waste, including building materials and construction debris, collected and placed in approved receptacles?	☐ Yes ☐ Action Item ☐ N/A
12	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ Action Item ☐ N/A
13	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other potential pollutants?	☐ Yes ☐ Action Item ☐ N/A
14	Are portable toilets, material storage areas, and materials that are potential stormwater contaminants managed appropriately?	☐ Yes ☐ Action Item ☐ N/A
15	Other, based on site conditions:	☐ Yes ☐ Action Item ☐ N/A

No.	Location and Recommended Corrective Measure

General Notes and Comments: _____

APPENDIX 18

Outfall Inspection Data Forms and Reports

Section 1: Background Data

Subwatershed:	Outfall ID:	
Date:	Time (Military):	
Temperature:	Inspector(s):	
Previous 48 Hours Precipitation:	Photo's Taken (Y/N)	If yes, Photo Numbers:
Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Residential ☐ Commercial	☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
Storm Sewer (Closed Pipe)	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Clay / draintile ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: ____	☐ Single ☐ Double ☐ Triple ☐ Other:_____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
Open drainage (swale/ditch)	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	

Section 3: Physical Indicators

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe algea/growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	
Do physical indictors suggest an illicit discharge is present (Y/N):			

Flow Present?	☐ Yes	☐ No	**If No, Skip to Section 7 and Close Illicit Discharge Investigation**
Flow Description	☐ Trickle	☐ Moderate	☐ Substantial

Section 4: Physical Indicators (Flowing Outfalls Only)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Sulfide ☐ Petroleum/gas ☐ Laundry ☐ Other:	☐ 1–Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color (color chart)	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange/Red ☐ Multi-Color ☐ Other:	☐ 1–Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1–Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage ☐ Suds and Foam ☐ Petroleum (oil sheen) ☐ Grease ☐ Other:	☐ 1–Few/slight; origin not obvious	☐ 2 – Some; indications of origin	☐ 3 - Some; origin clear
Do physical indictors (flowing) suggest an illicit discharge is present (Y/N):					

Section 5: On-Site Sampling / Testing (Flowing Outfalls Only)

PARAMETER	RESULT	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)	EQUIPMENT
Temperature		NA	NA	Thermometer
pH		6 – 9		5-in-1 Test Strip
Ammonia		<3 mg/L April – Oct < 8 mg/L Nov - March		Test Strip
Free Chlorine		NA	NA	5-in-1 Test Strip
Total Chlorine		< 0.05 mg/L		5-in-1 Test Strip
Phenols		< 0.1mg/L		Test Kit
Detergents as Surfactants		> 0.25 mg/L residential > 5 mg/L non-residential		Test Kit
Copper		<0.025 mg/L		Test Strip
Alkalinity		NA	NA	5-in-1 Test Strip
Hardness		NA	NA	5-in-1 Test Strip
Sample Location				

(Note NA values used for future tracing procedures)

Section 6: Data Collection for Lab Testing (see flow chart)

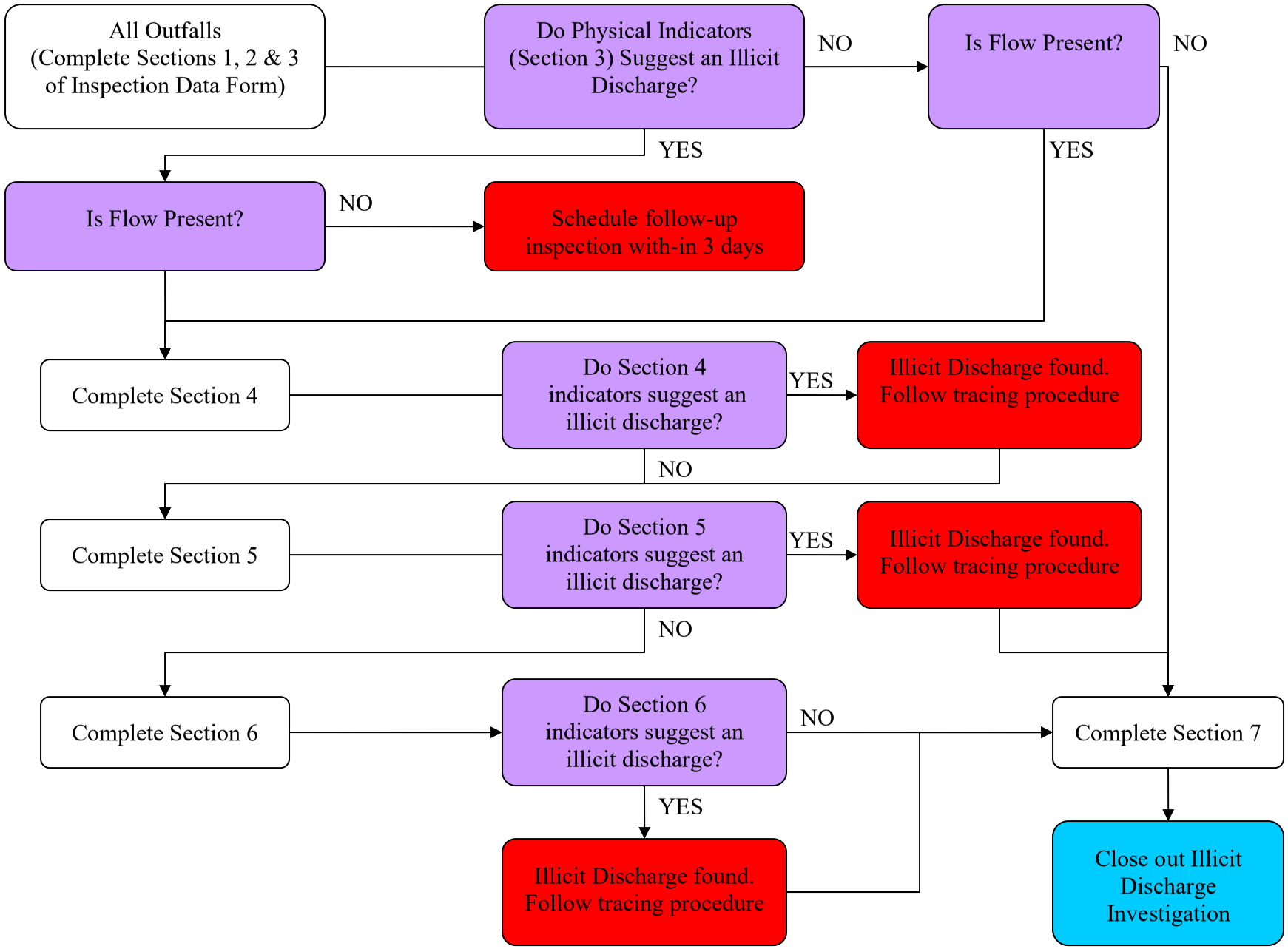
1. Sample for the lab?	☐ Yes	☐ No
2. If yes, collected from:	☐ Flow	☐ Pool

PARAMETER	RESULT (from lab)	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)
Fecal Coliform		400 per 100 mL	
Flouride		0.6 mg/l	
Potassium		Ammonium/Potassium ratio or > 20mg/l	

*note label sample with outfall number

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Figure 4: Outfall Inspection Procedure Flow Chart



Instructions for completing the
Stormwater Outfall Inspection Data Form

Strike out incorrect entries with a single line; correct values or descriptions are written above or near the struck-out entries. Do not use a new data entry form to correct an incorrect entry. At the completion of each outfall inspection, the field crews are responsible for ensuring that a ***Stormwater Outfall Inspection Data Form*** has been completely and correctly filled out and that all data and remarks are legible. **It is important to check that values for all chemical parameters have been entered**.

Section 1: Background Data

Subwatershed: The receiving water from the stormwater outfall inventory to be entered here.

Outfall ID: Enter the outfall identification number from the stormwater outfall inventory.

Date: To avoid confusion, dates are be written in the following manner: DAY MONTH YEAR. For example, 10 MARCH 2007.

Time: Military time (24-hour clock) to be used (for example, 8:30 a.m. would be written as 0830; likewise, 1:30 p.m. would be written as 1330).

Temperature: A concise description of the weather conditions at the time of the screening is to be recorded (for example, Clear, 75○ F).

Inspector: The name(s) of the field personnel.

Previous 48 Hours Precipitation: The total amount of precipitation during the 48 hours preceding the inspection is to be noted (for example, none-72 Hours or 0"=4 days). If the total precipitation is not known, it is appropriate to enter a qualitative assessment if the precipitation was minor. For example, *Drizzle-36 Hours* if appropriate. If the precipitation amount was significant, actual precipitation totals is obtained from a local rain gage, if available.

Photo's Taken (Yes/No): Photographs are to be taken with a camera that superimposes a date and time on the film. The date and time should correspond to the date and time recorded on the data form.

Photo Numbers: If photographs are taken, the number(s) is recorded.

Land Use: Check all that apply, noting which land use is predominate. If the industrial box is checked, any known industries are listed to facilitate potential tracing efforts.

Section 2: Outfall Description

Type of Outfall: Storm Sewer (Closed Pipe) or Open Drainage (Swale/Ditch):
First check if the outfall is either from a Closed Pipe or Open Drainage. Then complete the following row to describe outfall characteristics.

Section 3: Physical Indicators

Indicators: Complete rows describing outfall characteristics (Outfall Damage, Deposits/Stains, Abnormal Vegetation, Poor pool quality, Pipe algea/growth). This section is filled out regardless of current flow conditions. No flow during the time of the inspection, does not rule out the potential of illicit discharges. Corroding or stained pipes, dead or absence of vegetation, are potential indicators of illicit discharges from direct or indirect (i.e. dumping) sources.

Likelyhood: After inspecting the physical conditions of the outfall, the likelihood of an illicit discharge is assessed.

Flow Present (Yes/No): A *Yes* or *No* is entered here to indicate the presence or absence of dry-weather flow. If the outfall is submerged or inaccessible, "See Notes" is entered and an explanation provided in the "Notes" section.

Flow Description: A description of the quantity of the dry-weather flow is provided. Refer to Figure 6 of the SMPP.

Flow Chart Procedure:

- If *No* is entered in the "Flow Present" block and no non-flowing physical indicators appear present the inspection can be closed, skip to Section 7 of the form.
- If *No* is entered in the "Flow Present" block but indicators appear present, place the outfall on the follow-up inspection log, then the current inspection can be closed, skip to Section 7 of the form.
- If *Yes* is entered in the "Flow Present" block (regardless of the presence of non-flowing physical indicators), complete remainder of Section and proceed to Section 4.

Section 4: Physical Indicators (Flowing Outfalls Only)

Complete rows describing outfall characteristics (Odor, Color, Turbidity, Floatables). This section is filled out for flowing outfalls only.

Odor: The presence of an odor is to be assessed by fanning the hand toward the nose over a wide-mouth container of the sample, keeping the sample about 6 to 8 inches from the face. Be careful not to be distracted by odors in the air. Provide a description of the odor, if present. Refer to Table 2 of the SMPP.

Color: The presence of color in the discharge is to be assessed by filling a clean glass sample container with a portion of the grab sample and comparing the sample with a color chart, if color is present. If a color chart is used, the number corresponding to the color matching the sample is to be entered in this blank. Color is not assessed by looking into the discharge. Refer to Table 3 of the SMPP.

Turbidity "clarity": Turbidity is a measure of the clarity of water. Turbidity may be caused by many factors, including suspended matter such as clay, silt, or finely divided organic and inorganic matter. Turbidity is a measure of the optical properties that cause light to be scattered and not transmitted through a sample. The presence of turbidity is to be assessed by comparing the sample to clean glass sample container with colorless distilled water. Refer to Table 4 of the SMPP.

Floatables: The presence of floating scum, foam, oil sheen, or other materials on the surface of the discharge are to be noted. Describe of any floatables present that are attributable to discharges from the outfall. Do not include trash originating from areas adjacent to the outfall in this observation. Refer to Figure 5 and Table 4 of the SMPP.

Likelyhood: After inspecting the physical conditions of the outfall discharge, the likelihood of an illicit discharge is assessed. If flowing physical indicators are present the tracing procedure are immediately implemented by one of the field crew. The second member of the field crew continues with the inspection by performing the on-site testing in Section 5.

Flow Chart Procedure:

- If flowing physical indicators are present the tracing procedure is immediately implemented by one of the field crew. The second member of the field crew continues with the inspection by performing the on-site testing in Section 5.
- If flowing physical indicators do not suggest an illicit discharge continue with the inspection by performing the on-site testing in Section 5.

Section 5: On-Site Sampling/Testing (Flowing Outfalls Only)

Parameters: Test strip or kit chemical analyses are conducted for the following parameters in accordance with the Flow Chart, refer to Figure 7 of the SMPP.

- Color, color chart,
- Chlorine, test strip,
- Copper, test strip,
- Ammonia, test strip,
- Phenols, test kit, and
- Detergents, test kit.

Testing is done by either a test strip or test kit as applicable (refer to the equipment column). The results are compared with the "acceptable range" and the "within range" column is filled out with a Yes or No. Note that the Temperature, Alkalinity and Hardness are determined although these results do not need to be compared with an "acceptable range". These values are used to assist in determining the source of the illicit discharge during the tracing procedure.

Sampling Location: A description of the actual sampling location is to be recorded (for example, at end of outfall pipe). If the outfall is submerged or is inaccessible for sampling, an upstream sampling location may be required. A description of any upstream sampling locations is recorded here. Grab samples are collected from the middle, both vertically and horizontally, of the dry-weather flow discharge in a critically cleaned glass container. Samples can be collected by manually dipping a sample container into the flow.

Sampling Procedures: Detailed, step-by-step instructions for using the test strips and kits are available through the Public Works Department. Please also refer to Chapter 3.3.B.7.b. for test kit safety information. Use the following procedures for all test kit analyses:

1. Take a grab sample and swirl to ensure that the sample is well mixed.
2. Rinse the sample cup (25ml) twice with distilled water. Next, rinse the sample cup twice with water from the grab sample.
3. Fill the sample cup to the 25 ml mark, or as required by the instructions for the test kits. Hold the sample cup at eye level to ensure that measurements are accurate.
4. Conduct the test kit analyses following the manufacturer's instructions.
5. Dispose of the sample as follows:
   - If no chemical or reagents have been added to the sample, the water can be poured on the ground.
   - If any chemical or reagent is added to the sample, pour the water into a container marked "Liquid Waste" for proper disposal to a sanitary sewer system at the end of the day.
6. Rinse the sample cup three times with tap water and dry with a paper towel.

Flow Chart Procedure:

- If any parameter is outside of the "acceptable range" then an illicit discharge has likely been found. The tracing procedure is immediately implemented by one of the field crew. Testing can be stopped, and the second member of the field crew continues with the inspection by completing Section 7.
- If none of the parameters are outside of the acceptable range, proceed to Section 6.

Section 6: Data Collection for Lab Testing

Determine if the Village's Waste Water Treatment Plant (WWTP) has adequate staff capacity to analyze the samples.

- If the WWTP has adequate staff capacity, collect grab samples and provide them to the WWTP. Note the location of the sample. Label the sample with the outfall ID number. Proceed to Section 7 while in the field and complete the remainder of Section 6 after the lab results are available.
- If the WWTP does not currently have adequate capacity, determine if Sections 3 or 4 of the inspection form suggest an illicit discharge.
  - If Sections 3 or 4 suggest an illicit discharge contact and outside lab to perform the testing. Proceed to Section 7 while in the field and complete the remainder of Section 6 after the lab results are available.
  - If Sections 3 or 4 do not suggest an illicit discharge, note the outfall ID number. Place the outfall on the follow-up inspection log and proceed to Section 7 of the form. Re-inspect and sample the discharge when the WWTP has adequate capacity.

Sample Location: The location of the sample is noted. Additionally, the sample is labeled with the outfall ID number. Use the insert MS4 type's sampling procedures and refer to Chapter 3.3.B.7.b. for test kit safety information. . The following additional items are noted.

1. When you collect any samples you must fill out an ***Outfall Sampling Report* (Appendix 5.4).** The report must document time you arrive on location, take the sample and get to the plant to drop off the sample.
2. A 500-ml glass bottle sample is used to collect the sample. If you are collecting a sample that has grease 2-250ml samples taken with a glass container are required.
3. If you use the sampling container that is on a rope, it must be washed with soap and water after every use.

Parameters: Grab samples and lab testing is performed. After lab results are available enter the results here.

- If any parameter is outside of the "acceptable range" then an illicit discharge has likely been found. The tracing procedure should be immediately implemented.

- If none of the parameters are outside of the acceptable then the investigation can be closed.

Section 7 Any Non-Illicit Discharge Concerns

Any problems or unusual features are to be entered here. If the outfall appears to be potentially impacted by inappropriate discharges, this can be recorded here. This section is to be completed even if no flow is observed.

Outfall Sampling Report

Structure ID # Date:

Outfall ID # Time of Sample:

Sampled By: AM PM

Glass Bottle Size: 250 ml 500 ml 32 ml

Tests requested: Flouride Potassium Fecal Coliform

Relinquished By:	Date:
Comments:	Time:
Received By:	Date:
Comments:	Time:
Relinquished By:	Date:
Comments:	Time:
Received By:	Date:
Comments:	Time:

APPENDIX 19

Detention Pond Checklists

Detention/Retention Pond Checklist

Inspected by:	**Date:**	
	Weather Conditions:	

Number	**Name/Location**	**Flood Height** *(low/medium/high)*	**Condition** *(Good / Fair / Poor)*	**Comments**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Detention/Retention Pond Checklist

Inspected by:	**Date:**	
	Weather Conditions:	

Number	**Name/Location**	**Flood Height** *(low/medium/high)*	**Condition** *(Good / Fair / Poor)*	**Comments**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
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14				
15				
16				
17				
18				
19				
20				

APPENDIX 20

Pre-Construction Meeting Forms

City of Northlake

Christopher B. Burke Engineering, Ltd.

Preconstruction Meeting Agenda Items

Date: _____
Location: _____
Start Time: _____
Adjourn Time: _____

Project: _____
Building Permit #: _____
Developer: _____

Attendees: See Attached "Sign In Sheet"

Development Coordinator:	_____	24 hr. Emergency Contact:	_____
Address:	_____	Address:	_____
City:	_____	City:	_____
Zip Code:	_____	Zip Code:	_____
Cell Phone #:	_____	Cell Phone #:	_____
Office Phone #:	_____	Office Phone #:	_____
Fax #:	_____	Fax #:	_____
Email address:	_____	Email address:	_____

( ) 1. Certificate of Insurance
- ( ) A. Completed By DEVELOPER/CONTRACTOR as requested by the City
- ( ) B. Required from DEVELOPER/CONTRACTOR prior to Notice to Proceed and/or Building Permit
- ( ) C. Submitted (YES) (NO)
- ( ) D. Additionally Insured to be listed
  - ( ) i. The City of Northlake
  - ( ) ii. Other _____

( ) 2. Contractors
- ( ) A. All Contractors Named
  - ( ) i. Sub #1_____(Underground)_____
  - ( ) ii. Sub #2_____(Paving) _____
  - ( ) iii. Sub #3_____(Earthwork) _____
  - ( ) iv. Sub #4_____(Street Lighting)_____
  - ( ) v. Sub #5_____(Other) _____

City of Northlake

Christopher B. Burke Engineering, Ltd.

Preconstruction Meeting Agenda Items

( ) 3. Engineer's Authority
- ( ) A. Furnish DEVELOPER all desired assistance in interpreting plans and specifications.
- ( ) B. Assistance does not relieve the DEVELOPER and/or CONTRACTORS of any responsibility for the Work. Faulty work must be corrected by the DEVELOPER and/or CONTRACTOR.
- ( ) C. ENGINEER does not have control over or charge/supervision of, nor be responsible for construction means, methods, techniques, sequences, procedures or controls, or the safety precautions or programs in connection with the Work.
- ( ) D. City Contacts:

( ) 4. Drawings
- ( ) A. APPROVED FOR CONSTRUCTION ENGINEERING
- ( ) B. APPROVED FINAL PLAT
- ( ) C. ENGINEER'S SURFACE DRAINAGE WATER CERTIFICATE (signed)
- ( ) D. CONTRACTOR'S CERTIFICATE (NPDES)
- ( ) E. DEVELOPER / CONTRACTOR to field verify for accuracy of all Drawings pertinent to this project. Any discrepancies found shall be brought to the attention of the CITY/OWNER immediately.
- ( ) F. Construction set of Drawings provided to City
- ( ) G. Additional Drawings requested by City: _____
- ( ) H. Electronic Copy of drawings provided to City

( ) 5. Responsibilities of DEVELOPER / CONTRACTORS
- ( ) A. Work schedule to be submitted prior to Start of Construction
- ( ) B. Existing Utilities: Joint J.U.L.I.E. meeting to be coordinated by CONTRACTOR prior to Notice To Proceed
  - ( ) i. Date of Joint J.U.L.I.E. meet _____

( ) 6. Submittals
- ( ) A. Required Submittals
  - ( ) i. NPDES Documentation (ILR10 or Letter of Coverage)
  - ( ) ii. IEPA Operating Permits
    - (1) Sanitary
    - (2) Water
  - ( ) iii. Shop Drawings for Street Lighting System (publicly maintained system only)

City of Northlake

Christopher B. Burke Engineering, Ltd.

Preconstruction Meeting Agenda Items

( ) 7. NPDES – Sediment & Erosion Control
- ( ) A. Inspections by Developer Forwarded to City via email to northlakemayor@comcast.net
- ( ) B. Developer Contact = _____ email = _____

( ) 8. Mobilization and Demobilization
- ( ) A. Date of Mobilization _____
- ( ) B. Access

( ) 9. Project Progress/Coordination Meetings
- ( ) A. Bi-Weekly: every other _____
- ( ) B. First meeting to be held on _____

( ) 10. Working Hours per City Ordinance
- ( ) A. Weekdays 7AM – Dusk
- ( ) B. Saturdays 8AM – Dusk
- ( ) C. Sundays 8AM - Dusk

( ) 11. Temporary Construction Facilities
- ( ) A. Detours
  - ( ) i. Route & Signage Per Approved Plan
  - ( ) ii. Notification to public (CC: City)
    - (1) School Districts
    - (2) Fire & Police & Sheriffs Departments
    - (3) USPS
- ( ) B. Maintenance of Traffic Control
  - ( ) i. Name of Traffic Control Sub:_____
  - ( ) ii. Responsible Traffic Control Contact:_____
  - ( ) iii. Phone #:_____
- ( ) C. Maintenance of Erosion Control
  - ( ) i. Name of Erosion Control Sub:_____
  - ( ) ii. Responsible Erosion Control Contact:_____
  - ( ) iii. Phone #:_____

( ) 12. Street Cleaning – Daily if needed

( ) 13. Approved Material List

City of Northlake

Christopher B. Burke Engineering, Ltd.

Preconstruction Meeting Agenda Items

( ) 14. General Subdivision Ordinance Requirements

( ) A. Items listed below **do not constitute all requirements** as listed in the City's Subdivision Ordinance.

( ) B. All Subcontractors should be made aware of the following general requirements included in the City Subdivision Ordinance.

( ) C. SANITARY

( ) i. *Sewer Depth.* Min. depth of 3½ feet to the sewer invert shall be required. Max. depth of 25 feet.

( ) ii. Prior to pipe laying and jointing, the trench shall be sufficiently dewatered to maintain the water level in the trench at or below the base of the bedding.

( ) iii. Manholes shall be no less than 48 inches in dia. and shall be constructed with an external chimney seal in accordance with the sanitary manhole detail.

( ) iv. Allowable service materials are ductile iron and PVC.

( ) v. The contractor shall keep a record of the location of branch fittings, riser pipes, and service lines by measurement to the nearest downstream manhole. Location information shall be included on record drawings.

( ) vi. Testing Requirements

(1) Low Pressure Air Test

(2) MH Vacuum

(3) Mandrill

(4) Videotaping

( ) D. WATER DISTRIBUTION

( ) i. Fire Hydrants

(1) Hydrants shall be installed no closer than 3 feet to the face of the hydrant, steamer port (pumper nozzle), nor further than 8 feet from the back curb.

(2) No hydrant shall be installed within 4 feet of any obstruction, nor shall any obstruction be placed within 4 feet of a hydrant.

(3) FLAGS – to be installed on lower portion of bonnet & on opposite side of steamer port

( ) ii. Valves - All valves 12 inches and larger shall be butterfly valves iron body rubber seat type. All valves shall open counter clockwise with non-rising stem (except hand valves).

( ) iii. Vaults

(1) All valves proposed to be placed under pavement shall be installed in precast concrete vaults as specified in the valve vault detail.

(2) Vaults shall be constructed with an external chimney seal.

(3) All other valves and auxiliary valves shall be installed within cast iron valve boxes fitted with a valve box stabilizer.

(4) Vaults and boxes shall not be allowed within driveway limits.

( ) iv. Pipe - All plastic water main shall be installed with a minimum ten (10) gauge solid copper tracer wire. The wire shall be continuous through valve vaults and boxes and shall be accessible up to the inside top of all vault frames and/or valve box covers.

( ) v. Water Service Lines
(1) Service lines shall be continuous with no splices or change in material between either the corporation and the curb stop or the curb stop and the house meter.

( ) vi. Testing Requirements
(1) Static Pressure
(2) Leakage
(3) Chlorination - (results to be delivered to McHenry Analytical by CONTRACTOR

( ) E. COMBINATION CONC C&G
( ) i. All C&G shall be continuously reinforced using two No. 4 bars.
( ) ii. Stamped with "W" indicating the location of a water service & Stamped with "S" indicating the location of a sanitary sewer service.

( ) F. DRIVEWAYS / APPROACHES
( ) i. No manholes, inlets, valve vaults or other types of structures shall be allowed to be constructed in a driveway or driveway approach unless approved by the Director of Public Works
( ) ii. Constructed with air-entrained Portland Cement – 4% to 6% in accordance with the IDOT "Standard Specifications". The concrete mix shall be a min. of six bags of Portland Cement per CY of concrete and shall use fiberglass reinforcement additives. The use of welded wire fabric is prohibited.
( ) iii. The final surface of all concrete driveway approaches shall have an appropriate sealant applied in accordance with the IDOT "Standard Specifications".
( ) iv. When the subgrade has been prepared & no sooner than 24 hours prior to placing concrete, the contractor shall notify the City Inspector that forms are in place and the subgrade is ready for inspection. No concrete shall be placed until the subgrade has been inspected and approved
( ) v. *Cold Weather Requirements.* No concrete shall be placed when the air temperature is below 40° F. or is between 40° and 45° F. and falling unless approved by the City Engineer. In no case shall concrete be placed on frozen subgrade.

( ) G. *SIDEWALKS*
( ) i. MATERIAL - All sidewalks shall be constructed of PCC Concrete & shall be at least a 6 bag mix. 4% to 6% air- entrained & Slump of not less than 2 inches or more than 4 inches. Fiberglass reinforced additives shall be used on all sidewalks extending through driveways.

( ) *ii. SUBGRADE PREPARATION* When the subgrade has been prepared and no sooner than 24 hours prior to placing concrete, the contractor shall notify the City Inspector that forms are in place and the subgrade is ready for inspection. No concrete shall be placed until the subgrade has been inspected and approved.

( ) *iii. COLD WEATHER REQUIREMENTS – Same as for C&G and Driveways*

( ) iv. When the temperature of the air is expected to drop below 40° F. within 24 hours after placing the concrete shall be protected with 9 inches of loose, dry straw and a layer of burlap, or other acceptable material, for a period of at least five days.

( ) H. STREET LIGHTING

( ) i. Street lighting systems shall be guaranteed from date of acceptance for a period of 3 years.

( ) ii. Submit for review Shop Drawings / Catalog Cuts to City for review (poles, luminaries, conduit, controller, foundations, etc.)

( ) iii. Streetlights shall be no closer than 8 feet away from any fire hydrant.

( ) iv. SPARE POLES, LUMINARES & LAMPS - The City shall be provided with spare poles and luminaries for streetlight installations in the ratio of 1 for every 20 in the system to be installed. A payment in lieu of spare poles and luminaries, at the unit cost of a said streetlight installation, can be made when determined by the Director of Public Works that a sufficient inventory of the same type of pole and luminaries exists at Public Works.

( ) I.WIRE/CABLE REQUIREMENTS

( ) i. All wire and cable installed for street lighting system from the power source to the lighting poles, shall be contained in either three conductor 1¼ inch minimum diameter unit-duct manufactured from high density smooth wall polyethylene electrical plastic duct or heavy-walled galvanized steel conduit.

( ) ii. All wire, cable and unit-duct to be furnished are to be installed with a min. burial of **30 inches** in locations on the right-of-way side of the front set-back limit and are to be installed with a min. burial of **48 inches** in locations on the rear yard side of the front set-back limit.

( ) iii. All circuits shall be tested in the presence of the City Electrical Inspector.

( ) iv. Cable slack shall be provided such that there is a min. of 3 feet of slack at the base of all light poles.

( ) v. When passing under concrete or asphalt surfaces, rigid galvanized steel conduit not less than 2 inches in diameter shall be used for raceways for unit-duct.

City of Northlake

Christopher B. Burke Engineering, Ltd.

Preconstruction Meeting Agenda Items

( ) J. Wetland Improvements
- ( ) i. Annual Reports – To be forwarded to the City for review (northlakemayor@comcast.net)

( ) K. FINAL ACCEPTANCE
- ( ) i. Request in writing prior to August 15th directed to City Engineer
- ( ) ii. Punch list work completed and re-inspected prior to Oct. 1st
- ( ) iii. One year Maintenance Period

( ) L. OTHER ITEMS

AGENDA
PRE-CONSTRUCTION CONFERENCE

PROJECT:_____ CONFERENCE DATE:_____

CONTRACTOR: _____ Phone: _____

Project Manager:_____ FAX: _____

Site Superintendent:_____ Phone:

Cell/Pager:_____

ENGINEER: _____ Phone:_____

Project Manager: _____ FAX:_____

Field Representative:_____ Cell/Pager:_____

DECI: _____

Phone:_____ Fax:_____ Cell/Pager:_____

1. Welcome, Introductions, and Sign-in

2. Contract Dates

   a. Start _____

   b. Duration of Contract _____

   c. Substantial Completion _____

   d. Final Completion _____

3. Utilities

   a. Water
   b. Sewer
   c. Electric (ComEd)
   d. Comcast
   e. Telephone (SBC)
   f. Gas (Nicor/Northshore)
   **Contact JULIE 1-800-892-0123

4. Permits

a. Water
b. Sewer (IEPA)
c. Building
d. Watershed Development
e. Wetlands Development
f. IEPA / NPDES (Erosion Control)
g.IDOT
h. Easements

5. Contractors Insurance (Certificate of Insurance) Name

6. Performance Guarantee

7. Reference Points/Surveying/Staking

a. Who provides: _____

8. Construction Schedule / Sequencing

a. Preliminary for first 30 days by _____
b. Sequencing

9. List of Subcontractors/Suppliers

10. Special Structures needing Shop Drawings

11. As-builts required at completion of project.

12. Operation and Maintenance of Existing Facilities

Utilities
Driveways
Construction entrance and silt fence etc.

13. Defective Work will be brought to contractor and general contractor attention as soon as seen or determined.

14. Traffic Control

a. Traffic Control Subcontractor: _____

15. Soil Erosion / Sediment Control

a. Floodplain/Floodway On/Adj. to Site (Y/N)
b. WOUS On/Adj to Site (Y/N)
c. Initial SE/SC Inspection at PreCon (Y/N)
d. Village to receive weekly Inspection Reports (Y/N)
f. Key Discussion Items/Areas of Focus

☐ Communication Chain	☐ Construction Entrance	☐ Detention/Sediment Basin
☐ Dewatering	☐ Ditch Checks/Silt Dikes	☐ Dust / Mud Control
☐ General Phasing	☐ Inlet Protection	☐ Inspection Log
☐ Overland / Offsite Drainage	☐ Perforated Riser	☐ Perimeter SE/SC BMPs
☐ Restrictor Plate/Structure	☐ Silt Fence (ASSHTO 288-00)	☐ Soil Stockpile Stabilization
☐ Stormwater Management System	☐ Stabilization Measures	☐ SWPPP on Site & Updated
☐ Stormwater System	☐ Vegetative Cover/Type	☐ Wetlands/Waters Protection

16. Temporary Facilities and Controls

    a. Relocations (Utilities, roadway, etc.)
    b. Job Trailer location, phone numbers, address,

17. Testing (by Whom?)

    a. Materials
    b. Water main Installation
    c. Sewer Installation
    d. Pavement construction

18. Chain of Command (contacts)

    a. Contractor
    b. Consultant
    c. Village of Mundelein

19. Safety – OSHA/IDOT

20. Fire Protection / Police Department

21. Rescue Access

22. Work By Others

23. Progress Meetings

    Weekly/Bi-weekly beginning _____

24. Easement Requirements

    a. Existing/Proposed
    b. Construction Easements

c. Drainage Easements
d. Restoration/Staging of Materials

25. Inspections

a. Special inspections
b. By consultant and/or Village
c. Date of next inspection _____

26. Working Hours

a. Contractor construction

28. Comments, Q&A

APPENDIX 21

Employee Training Agendas or Course Information

Northlake NPDES Compliance Seminar Outline

I. NPDES Program Overview
   a. What is NPDES?
   b. What is MS4?
      - Aspects of MS4s
   c. What is a BMP?
   d. Why are we here?

II. Regulation of Discharges to the MS4
   a. Illicit Discharges
      - Examples
      - Detergents
      - Sanitary Sewer Waste
      - Naturally Occurring Discharges
      - Exemptions

   b. Construction Runoff Control
      - Silt Fence
      - Dust Control
      - Wattles vs. Straw Bales
      - Inlet Protection
      - Riprap
      - Check Dams
      - Diversion Dikes
      - Washouts
      - Dewatering Activities

   c. Pollution Prevention and Good Housekeeping
      - Salt Storage
      - Municipal Projects
      - Material Storage
      - Street Sweeping
      - Chemical Storage
      - Proper Disposal

   d. Consequences of Non-Compliance

NPDES Phase II MS4 Training Seminar

Travis M. Parry, PE, CFM, CMS4S
Christopher B. Burke Engineering, Ltd.

What is NDPES?

National Pollution Discharge Elimination System

Permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States:

- Point sources are discrete conveyances such as pipes or man-made ditches
- Not for individual homes that are connected to a municipal system or use a septic system
- Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

What is an MS4?

Municipal Separate Storm Sewer System

A conveyance or system of conveyance owned by a state, city, or other public entity that discharges to waters of the United States:

- Designed or used for collecting storm water;
- Is not a combined sewer; and
- Is not part of a Publicly Owned Treatment Works (POTW)

Aspects of the MS4

- Not Always A System of Storm Sewers
- MS4's May Include:
  - Ditches
  - Curbs
  - Gutters
  - Streams
  - Wetlands
  - Drainage Swales
  - Any Storm Water Conveyance

Other MS4 - Examples

- Highway Departments
- Universities
- Local Sewer Districts
- Hospitals
- Military Bases
- Prisons
- Airports

Best Management Practices

- A BMP is a method, device, or practice for removing, reducing, or preventing pollution in stormwater runoff from reaching receiving waters.
- Examples:
- Construction – Silt Fence
- Municipal – Street Sweeping

Why Are We Here?

- Required to develop a SWMP comprised of BMPs and measurable goals for each of the following six minimum control measures:

1. Public education and outreach on storm water impacts
2. Public involvement and participation
3. Illicit discharge detection and elimination
4. Construction site storm water runoff control
5. Post construction storm water management in new development and redevelopment
6. Pollution prevention/good housekeeping for municipal operations

Why Are We Here?

Village must regulate all discharges to the MS4

- Construction Sites
- Commercial Uses
- Industrial Uses
- Municipal Facilities
- Private Residences

Illicit Discharges

- Any discharge to the MS4 that is not composed entirely of stormwater

Outfall Inspections

1. Background Data
2. Outfall Description
3. Quantitative Characterization
4. Physical Indicators – Flowing Only
5. Physical Indicators – Both
6. Overall Outfall Characterization
7. Data Collection
8. Other Concerns

Outfall Inspections

1. Background Data
   a) Personnel
   b) Weather (temp, rainfall, etc)
   c) Location
   d) Land Use

Outfall Inspections

2. Outfall Descriptions
   a) Type (open, closed)
   b) Material (RPC, PVC, etc)
   c) Shape
   d) Size
   e) Submerged

Outfall Inspections

Outfall Inspections

3. Quantitative Characterization
   a) Flow Parameter (volume, depth, etc)
   b) Result
   c) Unit
   d) Equipment

Outfall Inspections

4. Physical Indicators - Flowing
   a) Indicator (odor, color, etc)
   b) Presence
   c) Description (sewage, sulfur, etc)
   d) Severity

Outfall Inspections

Outfall Inspections

5. Physical Indicators - Both
   a) Indicator (Damage, stains, etc)
   b) Presence
   c) Description (cracking, oily, etc)
   d) Comments

Outfall Inspections

Outfall Inspections

6. Overall Outfall Characterization
   a) Unlikely
   b) Potential
   c) Suspect
   d) Obvious

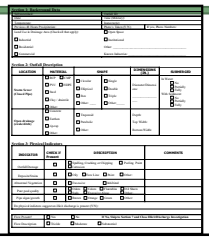
Outfall Inspections

7. Overall Outfall Characterization
   a) Sample collected
   b) Where

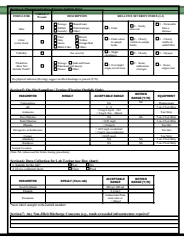
8. Non Illicit Discharge Concerns
   a) Trash
   b) Erosion
   c) Etc.

Outfall Inspections

Outfall Inspections



Outfall Inspections



Illicit Discharges - Examples

- Car Wash

Illicit Discharges

- Paint spills

Illicit Discharges

- Sanitary Sewer Overflows

Illicit Discharges

- Grass Clippings/Yard Waste

Illicit Discharges

- Motor Oil

Illicit Discharges

- Leaking Dumpster

Illicit Discharges

- Detergents

Illicit Discharges

- Animal Waste

Illicit Discharges

- Leaking Drums

Illicit Discharges

- Suds

Illicit Discharges

- Oil and Grease

Illicit Discharges
Sanitary Sewer Waste

- Gray Water

Illicit Discharges
Sanitary Sewer Waste

- Foam

Illicit Discharges
Sanitary Sewer Waste

- Staining

Illicit Discharges
Sanitary Sewer Waste

- Failing Septic System or cheater pipes

Illicit Discharges

- Petroleum Sheen

Illicit Discharges

- Spills

Illicit Discharges

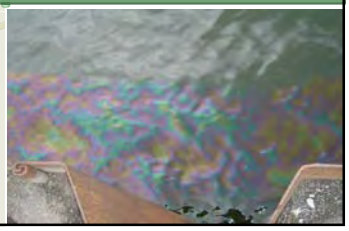
Trash and Debris

Illicit Discharges Industrial

- Chemical Odor

Illicit Discharge: Outfalls

Illicit Discharge: Oil Sheen



Illicit Discharges Industrial

- Discolored water

Illicit Discharges Agricultural Runoff

- Excessive Vegetation

Illicit Discharges Fertilizers

- Blue Green Algae

Illicit Discharges or Naturally Occurring?

- Fish kills

Illicit Discharges or Naturally Occurring?

- Foam or Suds

Illicit Discharges or Naturally Occurring?

- Staining and Discoloration

Illicit Discharges or Naturally Occurring?

- Algae Blooms

Illicit Discharges or Naturally Occurring?

- Sheens and Deposits

Illicit Discharges - Exemptions

- water line flushing
- landscape irrigation
- diverted stream flows
- rising ground waters
- uncontaminated ground water infiltration
- discharges from potable water sources
- foundation drains
- air conditioning condensation
- irrigation water
- springs
- water from crawl space pumps
- footing drains
- lawn watering
- individual residential car washing
- flows from riparian habitats and wetlands

Construction Site Runoff Control – During and Post

- A BMP is a method, device, or practice for removing, reducing, or preventing pollution in stormwater runoff from reaching receiving waters.
- Effectiveness of BMP's
- Selection
- Installation
- Maintenance

Silt Fence

- Tributary area to fence is appropriate
- Trenched into ground
- Backfilled
- Stake spacing w/ lath
- Wire Backing (if required)
- Not for Concentrated Flow
- **NOT A FIX ALL!**

Silt Fence Indicating an Erosion Problem…

Silt Fence Failure: Use Alternative

Wattles to Replace Straw Bales

- Can be used in different applications
  - Inlet Protection
  - Ditch Checks
  - Bank Stabilization
  - Perimeter Control

Wattles to Replace Straw Bales

Inlet Protection

- A variety of inlet protecting BMPs exist. Choose the appropriate BMP for each situation.
- Types of inlet protection include:
  - Filter fabric (Woven Monofilament)
  - Wattles
  - Pre-fabricated Devices
  - Filter Baskets
  - Silt fence
  - Stone
  - Vegetated Buffers
  - Any combination of the above

Inlet Protection

Inlet Protection

Result of Failing to Maintain Inlet Protection

Inlet Protection: Wattles

Prefabricated: Long Term and High Flow

Prefabricated: Long Term and High Flow

Street Inlet Protection

Street Inlets

Street Inlet Protection: Filter Fabric

- Woven Monofilament
- Low flow inlets
- Wrap around back
- Staple
- Don't puncture
  - May cause flooding
- Require Maintenance

Filter Basket

Filter Basket Cleanout

Stone Inlet Protection

Street Sweeping

- Streets are scraped, and swept to maintain sediment free roadways
- Curb ramps are constructed of non-erodible materials
- Removes dirt and debris before entering a stormwater management facility.
  - Reduces catch basin maintenance.

Dirt Ramps

Construction Entrance / Exit

- Install at:
  - Concrete Washout
  - Soil Stock Piles
  - Construction Roads
- Proper size
- Correct materials used to construct
  - DO NOT CAP WITH GRAVEL
  - Fabric Installed
- Remove accumulated sediment, install stone

Construction Entrance / Exit

Concrete/Construction Washouts

Concrete/Construction Washouts

Concrete/Construction Washouts

- Make the drivers aware
- Washout area is located at least 50' from storm drains or drainageways
- Stone driveways don't count…

Concrete/Construction Washouts

Concrete/Construction Washouts

Construction Washout

De-Watering Illicit Discharge

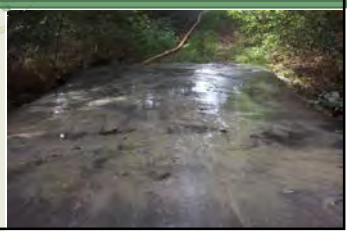
Dewatering…Floating the Pump

Dewatering…Floating the Pump

Filter Bag…Onsite

Filter Bag…At Capacity

Filter Bag…Fine Clays



Filter Bag…Fine Clays

Dewatering Activities

Dewatering Activities

Illicit Discharge From Pumping

Non-Storm Water Runoff

Hydrant Flushing

Non-Storm Water Runoff

Water Main Flushing

Unprotected Inlet

Next Stop…Violationville

Illicit Discharge

Pollutant Storage

- Store possible pollutants in an upland area, away from inlets
- Have MSDS onsite
- Include storage area in SWPPP
- Document possible pollutants in SWPPP

Pollutant Storage

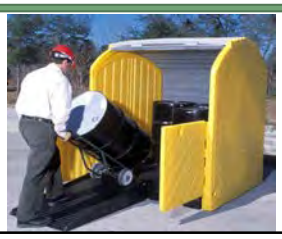
Designate chemical storage area(s) onsite to store:

- Fuel Trucks
- Fuel Tanks
- Form Oil
- Hydraulic Oil
- Tar Buckets
- Port-a-Potty's

Pollutant Storage Violation

Pollutant Storage Violation

Pollutant Storage Example



Port-A-Potty

Pollutant Storage

Soil Stockpiles

- Stockpiles are surrounded by silt fence
- Stockpiles are stabilized
- Stabilized Entrances
- Location!

Stockpiles Are More Than Soil

Pollution Prevention and Good Housekeeping

- Procedures or activities that municipalities and their employees can do to prevent or reduce stormwater contamination from municipal operations.

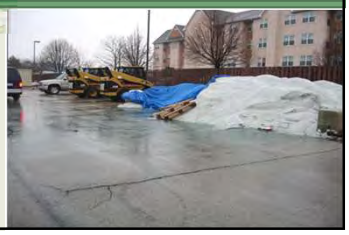
Pollution Prevention and Good Housekeeping

Municipal Activity	Potential Pollutants							
	Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Particulates	Oxygen Demanding Substances
Building and Grounds Maintenance and Repair	X	X	X	X	X	X	X	X	X
Parking/Storage Area Maintenance	X	X	X	X	X	X	X		X
Waste Handling and Disposal	X	X	X	X	X	X	X	X	X
Vehicle and Equipment Fueling			X	X		X	X		
Vehicle and Equipment Maintenance and Repair				X		X	X		
Vehicle and Equipment Washing and Steam Cleaning	X	X	X	X		X	X		
Outdoor Loading and Unloading of Materials	X	X	X	X		X	X	X	X
Outdoor Container Storage of Liquids		X		X		X	X	X	X
Outdoor Storage of Raw Materials	X	X	X			X	X	X	X
Outdoor Process Equipment	X		X	X		X	X		
Overwater Activities			X	X	X	X	X	X	X
Landscape Maintenance	X	X	X		X			X	X

Pollution Prevention and Good Housekeeping

- Education and training are first and most important steps in reducing or preventing discharges from municipal activities

Salt Piles



Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

8

Salt Storage

- Store piles under a roof or impermeable layer
  - Minimize contact with precipitation and storm water runoff
- Out of 100 yr Floodplain
- Stored on impermeable surfaces
- Contained within a curb or berm
- Store at least 50 feet from wetlands or streams
- Can contaminate surface and ground water

Salt Application

- Identify Environmentally sensitive areas on salt routes
  - Wetlands, streams, drainage swales, prairies, lakes, ground water recharge…
- Install impermeable barriers along sensitive areas
- Reduce plowing speed
- Reduce application rates at sensitive areas
- Clean out storm drains before the spring rains

Pollution Prevention and Good Housekeeping

- Municipal project with no SE/SC measures

8

Pollution Prevention and Good Housekeeping

- Salt box next to inlet

8

Pollution Prevention and Good Housekeeping

- Uncovered drums

8

Pollution Prevention and Good Housekeeping

- Oil Recycling Storage Tanks

8

Pollution Prevention and Good Housekeeping

- Inspection and maintenance procedures and schedules
  - Create and follow!

Pollution Prevention and Good Housekeeping

- Pet Waste Pick Up Station

8

Pollution Prevention and Good Housekeeping

- Demonstration Areas

8

Pollution Prevention and Good Housekeeping

- Clearly Marked Procedures and Equipment
- Signage

8

Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

- Proper Disposal of Municipal Generated Wastes

8

Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

8

Pollution Prevention and Good Housekeeping

- Municipal Projects

8

Pollution Prevention and Good Housekeeping

- Watermain Breaks

8

Pollution Prevention and Good Housekeeping

- Dewater CORRECTLY!

8

How to Help

Identification – Be aware

Notification – Alert the appropriate person

Documentation – Photos, Work Orders, Emails

Elimination – React or Follow up

Failure to Comply

- Municipalities and governmental entities NOT exempt from enforcement actions

$$$

Questions ?

Photo References

www.emeraldseedandsupply.com
www.aot.state.vt.us
www.nwequipsales.com
www.aot.state.vt.us
www.greatamericantec.com
www.thedeicingbusiness.com
www.depweb.state.pa.us/news/lib/news/oilsheenJPG.jpg
www.nscc.govt.nz

APPENDIX 22

Compliance Documentation – Public Education and Outreach

Separate Storm Sewer System

Date: June 2016 By: City of Northlake Filed Under: Around Town

Did you know it's illegal to dump harmful pollutants into the City's storm sewer system? The City's storm sewer system discharges into local rivers, streams and waterways. Pollutants can harm these waterways, reducing use of the resource, contaminating drinking water supplies and interfering with the habitats of fish, other water organisms and wildlife. Please call 708-562-0940 to report any possible storm water discharge violations.

About City of Northlake

DISCOVER NORTHLAKE, IL THE CITY OF FRIENDLY PEOPLE

Discover Northlake, IL ...

Search this website … Search

NORTHLAKE, IL
The City of Friendly People

Recycling

Date: December 2015 By: City of Northlake Filed Under: City News

Starting January 4, 2016

You must purchase a sticker for $5.00 for recycling TV's and computer monitors. The sticker must be affixed to these items before you take them to Public Works, 100 W. Palmer. Only Northlake residents can take their electronic recycling to the Public Works facility Monday through Friday, 7:30 to 3:00.
There is no charge for the following items: calculators, cable/satellite receivers, cables and cords, camcorders, cameras, CD drives, cell phones, holiday light strands, circuit boards, copy machines, digital recorders, DVD players, fax machines, hard drives, keyboards, software, microphones, microwaves, modems, MP3 players, postage machines, power tools, printers, scanners, servers, small home appliances, stereos, switch boxes, tape drives, phones, answering machines, typewriters, vacuum cleaners, VCRs video game consoles and controllers, word processors, zip drives.

Christmas Recycling List

Even if you have been a good recycler all year long, what to do with holiday decorations and gift wrap may present a challenge. Here is the list of recyclable and non-recyclable.

Recyclable: Gift boxes, tissue paper, shoe boxes, holiday cards/envelopes, gift bags (paper) and wrapping paper (non-metallic).

Non-recyclable: bubble wrap, foam peanuts, ribbon and bows, sticky gift labels, coated gift bags, metallic wrapping paper, soiled disposable tableware, tree decorations.
Christmas and other holiday trees will be picked up January 8th and January 15th. Please remove any tinsel, ornaments or lights.

About City of Northlake

DISCOVER NORTHLAKE, IL THE CITY OF FRIENDLY PEOPLE

Search this website … Search

TRANSLATE

CrimeReports™

CODE RED
Keeping citizens informed.

Most Wanted

EPA
United States Environmental Protection Agency

EPA 841-F-03-003

Protecting Water Quality *from* URBAN RUNOFF

Clean Water Is Everybody's Business

In urban and suburban areas, much of the land surface is covered by buildings and pavement, which do not allow rain and snowmelt to soak into the ground. Instead, most developed areas rely on storm drains to carry large amounts of runoff from roofs and paved areas to nearby waterways. The stormwater runoff carries pollutants such as oil, dirt, chemicals, and lawn fertilizers directly to streams and rivers, where they seriously harm water quality. To protect surface water quality and groundwater resources, development should be designed and built to minimize increases in runoff.

The most recent National Water Quality Inventory reports that runoff from urbanized areas is the leading source of water quality impairments to surveyed estuaries and the third-largest source of impairments to surveyed lakes.

Did you know that because of impervious surfaces like pavement and rooftops, a typical city block generates more than 5 times more runoff than a woodland area of the same size?

How Urbanized Areas Affect Water Quality

Increased Runoff

The porous and varied terrain of natural landscapes like forests, wetlands, and grasslands traps rainwater and snowmelt and allows them to filter slowly into the ground. In contrast, impervious (nonporous) surfaces like roads, parking lots, and rooftops prevent rain and snowmelt from infiltrating, or soaking, into the ground. Most of the rainfall and snowmelt remains above the surface, where it runs off rapidly in unnaturally large amounts.

Storm sewer systems concentrate runoff into smooth, straight conduits. This runoff gathers speed and erosional power as it travels underground. When this runoff leaves the storm drains and empties into a stream, its excessive volume and power blast out streambanks, damaging streamside vegetation and wiping out aquatic habitat. These increased storm flows carry sediment loads from construction sites and other denuded surfaces and eroded streambanks. They often carry higher water temperatures from streets, roof tops, and parking lots, which are harmful to the health and reproduction of aquatic life.

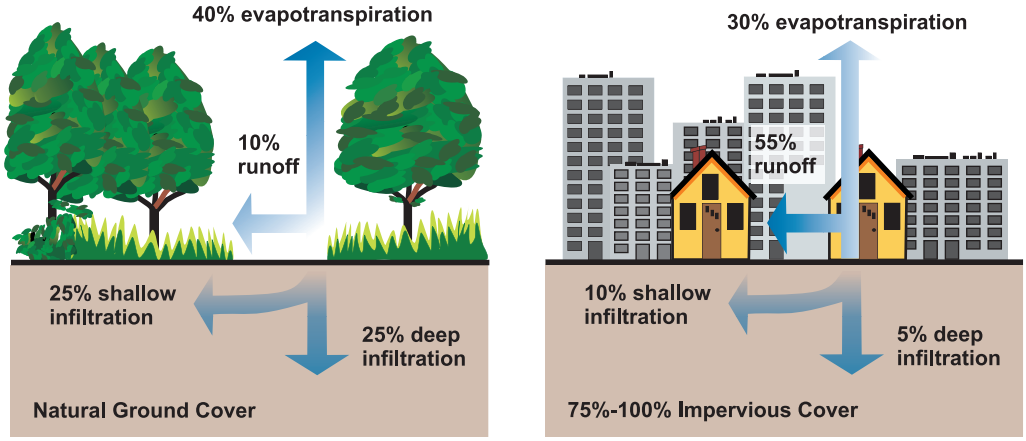
The loss of infiltration from urbanization may also cause profound groundwater changes. Although urbanization leads to great increases in flooding during and immediately after wet weather, in many instances it results in lower stream flows during dry weather. Many native fish and other aquatic life cannot survive when these conditions prevail.

Increased Pollutant Loads

Urbanization increases the variety and amount of pollutants carried into streams, rivers, and lakes. The pollutants include:

- Sediment
- Oil, grease, and toxic chemicals from motor vehicles
- Pesticides and nutrients from lawns and gardens
- Viruses, bacteria, and nutrients from pet waste and failing septic systems
- Road salts
- Heavy metals from roof shingles, motor vehicles, and other sources
- Thermal pollution from dark impervious surfaces such as streets and rooftops

These pollutants can harm fish and wildlife populations, kill native vegetation, foul drinking water supplies, and make recreational areas unsafe and unpleasant.



Relationship between impervious cover and surface runoff. Impervious cover in a watershed results in increased surface ruunoff. As little as 10 percent impervious cover in a watershed can result in stream degradation.

Managing Urban Runoff

What Homeowners Can Do

To decrease polluted runoff from paved surfaces, households can develop alternatives to areas traditionally covered by impervious surfaces. Porous pavement materials are available for driveways and sidewalks, and native vegetation and mulch can replace high maintenance grass lawns. Homeowners can use fertilizers sparingly and sweep driveways, sidewalks, and roads instead of using a hose. Instead of disposing of yard waste, they can use the materials to start a compost pile. And homeowners can learn to use Integrated Pest Management (IPM) to reduce dependence on harmful pesticides.

In addition, households can prevent polluted runoff by picking up after pets and using, storing, and disposing of chemicals properly. Drivers should check their cars for leaks and recycle their motor oil and antifreeze when these fluids are changed. Drivers can also avoid impacts from car wash runoff (e.g., detergents, grime, etc.) by using car wash facilities that do not generate runoff. Households served by septic systems should have them professionally inspected and pumped every 3 to 5 years. They should also practice water conservation measures to extend the life of their septic systems.

Controlling Impacts from New Development

Developers and city planners should attempt to control the volume of runoff from new development by using low impact development, structural controls, and pollution prevention strategies. Low impact development includes measures that conserve natural areas (particularly sensitive hydrologic areas like riparian buffers and infiltrable soils); reduce development impacts; and reduce site runoff rates by maximizing surface roughness, infiltration opportunities, and flow paths.

Controlling Impacts from Existing Development

Controlling runoff from existing urban areas is often more costly than controlling runoff from new developments. Economic efficiencies are often realized through approaches that target "hot spots" of runoff pollution or have multiple benefits, such as high-efficiency street sweeping (which addresses aesthetics, road safety, and water quality). Urban planners and others responsible for managing urban and suburban areas can first identify and implement pollution prevention strategies and examine source control opportunities. They should seek out priority pollutant reduction opportunities, then protect natural areas that help control runoff, and finally begin ecological restoration and retrofit activities to clean up degraded water bodies. Local governments are encouraged to take lead roles in public education efforts through public signage, storm drain marking, pollution prevention outreach campaigns, and partnerships with citizen groups and businesses. Citizens can help prioritize the clean-up strategies, volunteer to become involved in restoration efforts, and mark storm drains with approved "don't dump" messages.

Related Publications

Turn Your Home into a Stormwater Pollution Solution!
www.epa.gov/nps

This web site links to an EPA homeowner's guide to healthy habits for clean water that provides tips for better vehicle and garage care, lawn and garden techniques, home improvement, pet care, and more.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas
www.epa.gov/owow/nps/urbanmm

This technical guidance and reference document is useful to local, state, and tribal managers in implementing management programs for polluted runoff. Contains information on the best available, economically achievable means of reducing pollution of surface waters and groundwater from urban areas.

Onsite Wastewater Treatment System Resources
www.epa.gov/owm/onsite

This web site contains the latest brochures and other resources from EPA for managing onsite wastewater treatment systems (OWTS) such as conventional septic systems and alternative decentralized systems. These resources provide basic information to help individual homeowners, as well as detailed, up-to-date technical guidance of interest to local and state health departments.

Low Impact Development Center
www.lowimpactdevelopment.org

This center provides information on protecting the environment and water resources through integrated site design techniques that are intended to replicate preexisting hydrologic site conditions.

Stormwater Manager's Resource Center (SMRC)
www.stormwatercenter.net

Created and maintained by the Center for Watershed Protection, this resource center is designed specifically for stormwater practitioners, local government officials, and others that need technical assistance on stormwater management issues.

Strategies: Community Responses to Runoff Pollution
www.nrdc.org/water/pollution/storm/stoinx.asp

The Natural Resources Defense Council developed this interactive web document to explore some of the most effective strategies that communities are using around the nation to control urban runoff pollution. The document is also available in print form and as an interactive CD-ROM.

For More Information

U.S. Environmental Protection Agency
Nonpoint Source Control Branch (4503T)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
www.epa.gov/nps

February 2003

WHEN IT RAINS IT DRAINS

For more information contact:

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

EPA United States Environmental Protection Agency

EPA 833-B-03-002

January 2003

THE YEAR OF CLEAN WATER
Celebration & Recommitment

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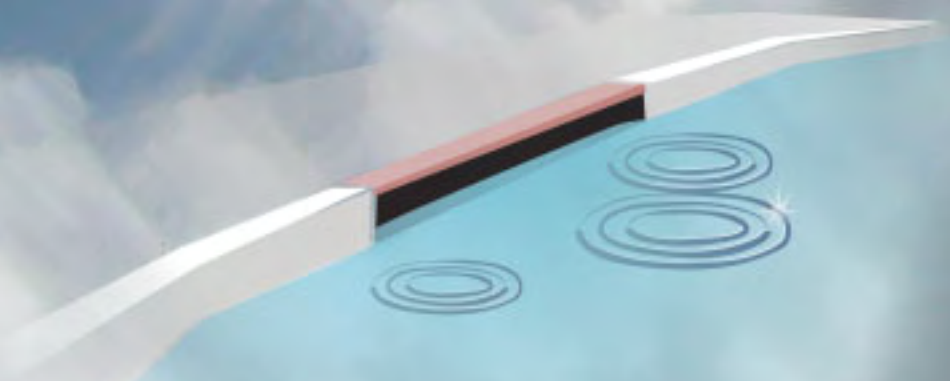
After the Storm



A Citizen's Guide to Understanding Stormwater

WHEN IT RAINS IT DRAINS

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.

- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

Stormwater Pollution Solutions

Residential

Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.

Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Septic systems

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

Rain Gardens and Grassy Swales—Specially designed areas planted with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.

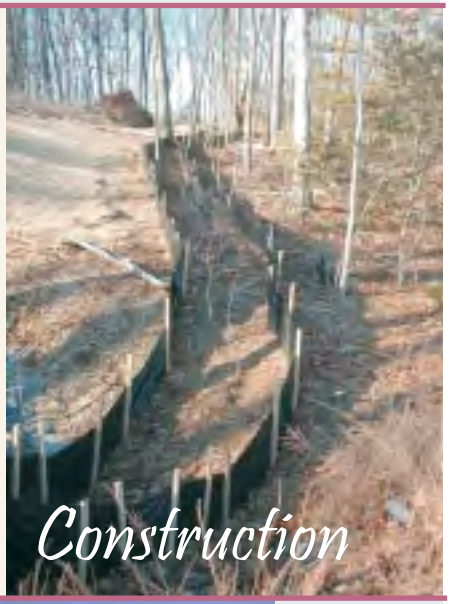
Commercial

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



Construction

Agriculture

Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

- Keep livestock away from streambanks and provide them a water source away from waterbodies.
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.

Forestry

Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.

Automotive Facilities

Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials.
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.

water flow, nearby homes may flood or experience surface ponding. *Runoff from areas as small as 1 acre can cause flooding.* Measures to remedy this kind of hazard usually require the cooperation of several homeowners.

Grade the yard so that surface water drains away from the house. A minimum grade of 1 foot in 100 feet is generally adequate. When filling in low areas, use the most permeable soil available. Save the topsoil and spread it over the newly filled and graded areas to help establish vegetation. To reduce soil compaction, limit construction traffic or use track equipment whenever possible on the lawn.

Installing roof gutters and downspouts to control roof water may prevent ponding in low yard areas. Downspouts can empty into outlet spreaders that discharge water in a thin layer over a grassy area.

Springs and Seeps...

On many sites, natural springs and seeps occur due to existing geology and landscape characteristics. Water may flow seasonally, throughout the year, or may flow into or around homes constructed over or near a spring or seep. For protection, install subsurface drains at least 4 inches in diameter surrounded by 6-12 inches of gravel or sand. Place gravel along the outside of the base of the foundation wall. Be sure to install an adequate gravity or pump outlet for the tile. An interceptor drain can divert seep or spring water before it reaches the structure.

Springs and seeps also affect lawns and onsite septic fields. You can install subsurface drains to collect groundwater and divert it. For guidance with septic field problems, contact your local health department. Typically, subsurface drains are made of plastic but older drain tile may be made of clay, concrete, or metal. Be sure to check local building codes for approved materials and other drainage regulations.

Slow Soil Permeability...

If the soil has a dense layer, especially a layer of clay or a severely compacted layer, water flow through the soil may be restricted and may cause ponding. If this layer is near the surface, use a soil aerator or deep-rooted native grass to increase infiltration and reduce surface ponding. Most lawn grasses have short root systems that only venture down a few inches. These shallow root systems dry out quickly and must be watered often. Native grass species with much deeper root systems thrive in dry weather and offer avenues for excess water to infiltrate deep into the soil rather than into your basement!

Remember to loosen the soil in the hole around the root ball when planting trees or shrubs to increase permeability which allows greater air and water movement in the soil. For larger wet areas, install subsurface drains about 4 inches in diameter at a depth of 2 to 5 feet. Use sand and gravel to backfill the drain trench to within a foot of the ground surface. Use topsoil to fill the surface layer. Restrict foot traffic during wet periods because even on well-drained soils, this can compact the soil and reduce permeability.

Where Do I Get Help?

Contact your local Natural Resources Conservation Service (NRCS), county Soil and Water Conservation District or Extension office, or your local county or municipal authorities or permit office for additional information on planning or installing drainage measures around your home. Keep in mind that local and state rules and drainage laws are different in each community and must always be considered.

The NRCS has more than 60 years of experience studying and managing the movement of soil and water. NRCS county Soil Survey reports contain valuable information for identifying the issues listed in this brochure. You can find your property on aerial photographs in the report and determine which soils make up the land you call home. Data in the soil survey identifies water table depths, drainage and permeability rates, ponding and flooding potentials, and much more.

Visit the Illinois NRCS Homepage for more information on soils and soil surveys at **www.il.nrcs.usda.gov**

September 1999 • Champaign, IL

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Drainage around your home

USDA NRCS
Natural Resources Conservation Service

Have a Drainage Problem?

Is your basement wet?
Does your yard flood or pond periodically?
Do trees, shrubs, and plants grow poorly?

Don't be surprised! About 20% of the land in the United States is affected by excess water. The good news is that there are signs for homeowners to look for, situations to avoid, and solutions that reduce drainage problems. Investigate the problem by first checking your downspouts. Downspout water should be directed away from your house. Second, grade the ground adjacent to the foundation walls so that they direct water away from the house.

If these solutions are in place, but you still have a wet basement or a sump pump that never stops running, you may have a more complex problem. If controlling surface water doesn't help, the problem may be below the surface--a high water table, spring or seeps, or abandoned subsurface agricultural tile that is draining water from other areas and directing it to your foundation. This dilemma can be dealt with by redirecting the water to new subsurface drains.

What Causes These Drainage Problems?

The soil we rely on as a foundation for our homes and property is a complex natural system. When left alone, the deep and rich prairie soils of Illinois can effectively handle normal and excessive amounts of water. But when the natural soil structure is disturbed and a high percentage of the soil surface that once absorbed water is covered with impervious surfaces and the surrounding landscape is severely altered, then the natural environment cannot cope on its own. In some newer subdivisions, all of the topsoil and part of the subsoil material is removed during construction. Only a thin layer of topsoil is returned to the site--just enough to support the shallow root system of your lawn.

These sites usually have severe problems with soil droughtiness and surface runoff. The topsoil is too thin to hold adequate amounts of water and the subsoil has been so densely compacted that it cannot allow excess water to infiltrate into it. By adding more topsoil, aerating, composting, using deep-rooted, drought-resistant grasses and plants, you can overcome these common limitations and restore the health and functionality of soil resources on your property. Generally, wetness and water problems are caused by flooding, springs and seeps, seasonal high water tables, surface ponding, or slow soil permeability.

Flooding...

If your home is in a floodplain of a nearby stream or creek, it is at risk for flooding if the stream overflows during heavy or prolonged rainfall or rapid snowmelt. Even if you've taken precautions to "flood-proof" your home, you can never totally eliminate the potential for flooding, but you can reduce flood damage.

Usually, community-wide measures are needed to reduce effects of flooding and provide some protection, but there are actions you can take to reduce problems. Making your home more resistant to flood damage may include measures that block openings such as windows and doors, regulate drain outlets, and waterproof walls. These measures can be expensive and require careful evaluation to prevent structural damage. If you plan to build a house outside a subdivision or near a perennial stream, be sure the site is not in the floodplain. Check with the local building department for floodplain maps and/or options for homeowners located in floodplains. Keep in mind that for many communities, floodplain maps may be outdated and may not adequately reflect actual conditions in the area. A building site *near* the floodplain boundary in a rapidly developing area 10 years ago, may be *in* the floodplain today.

Seasonal High Water Table...

A water table can be defined as the upper surface of groundwater or the level below which the soil is saturated with water. This level may fluctuate by several feet throughout the year, depending on soil conditions, landscape, or weather. When selecting a new homesite, consider the level of the seasonal high water table. In many areas of Illinois the seasonal high water table may be at or near the ground surface for long periods. Building in these areas should be avoided. If the water table is 6 feet deep or more, high water table problems will be minimal.

When building a new house in an area with a seasonal high water table that is less than 6 feet from the surface, a sump pump with a system of foundation drains should be used to lower the water table. Create a good outlet for discharge flow from the pump and consider where you direct this water---you don't want to create problems for a neighbor! If the home is already built, install gravel and drains around the base of outside walls. Lowering the water table under the basement floor should be done only after analysis by experts, since unequal settlement may crack the walls.

In lawn areas affected by a high water table, a small excavated pond, a wetland garden, or collection of water-loving plants may be a suitable remedy. Transform the nuisance wet area into an attractive landscaping feature. Provisions of the federal Clean Water Act or state and local laws may apply to persons who propose to alter any wetlands or to dredge, dig, or fill in floodplain areas. For clarification/information, contact the U.S. Army Corps of Engineers or IDNR's Office of Water Resources prior to any earthmoving activities.

Surface Ponding...

If a significant amount of surface water ponds on your lawn or driveway for long periods, install small diversions or swales to channel off the water. In developed residential areas, these practices are usually installed near property lines in back of or alongside houses.

For low flows of surface water, redirect water to landscaped yard areas with thirsty trees and shrubs. Be sure not to direct water onto someone else's property! If only small amounts of surface ponding occurs for short periods, drains may not be needed. Consider solving the problem by planting the area with water-loving native grasses or trees.

Even in upland areas, a continually wet basement or flooding can occur if the house is built in the path of a natural drainageway, in a pothole, or if the site is lower than the surrounding area. A drainageway or low area may look fine in dry seasons but can carry runoff water in wet seasons. In developed areas where the landscape has been greatly modified, runoff has increased and natural drainageways are often blocked or altered. If man-made drainageways or storm sewers are not built to carry this additional seasonal

City of Northlake

How to Use This Guide

This guide is designed to provide you with a quick and easy reference to the recycling and solid waste services available for City of Northlake residents. General information on household waste and yard waste service is found on the first foldout. The inside foldout contains a complete reference guide for recycling, explaining the different types of recyclable materials and how to prepare them for pickup.

Waste Sticker Vendors

- City Hall, 55 E. North Avenue, Northlake
- Jewel Foods, 10201 Grand Avenue, Franklin Park
- Walgreens, 6 E. North Avenue, Northlake

For additional information on services available:
Republic Services
5050 W. Lake St.
Melrose Park, Illinois 60160
(708) 345-7050

City of Northlake
55 E. North Ave.
Northlake, Illinois 60164
(708) 343-8700

FSC
www.fsc.org
MIX
Paper from responsible sources
FSC® C103312

Recycling Program Reference Guide for City of Northlake

CITY OF NORTHLAKE
55 E. NORTH AVE.
NORTHLAKE, IL 60164

City of Northlake

SOLID WASTE AND RECYCLING PROGRAM

Republic Services: (708) 345-7050
City of Northlake: (708) 343-8700

REPUBLIC SERVICES

REFERENCE GUIDE

City of Northlake
Refuse and Recycling Guide

The City of Northlake, in cooperation with Republic Services, is pleased to provide this reference guide. While not all inclusive, this guide is designed to provide you with information on the Northlake recycling, household waste and yard waste program. Please feel free to contact either the City at (708) 343-8700 or Republic Services at (708) 345-7050 if you need additional information.

GENERAL PROVISIONS

- Refuse, recycling and yard waste are collected on Friday.
- The normal service schedule may be affected by the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas Day. If one of these holidays falls on or before a Friday, service following the holiday will be delayed until Saturday that week.
- Please have your containers at the curb by 6 A.M. the morning of collection.
- Please remove empty containers from the curb as soon as possible after pick up as a courtesy to your neighbors.

SOLID WASTE (REFUSE)

- Each household has been provided with a wheeled refuse cart. Extra cans or bags of refuse, bulk items and appliances will be collected provided a Northlake refuse sticker is attached; **additional cans or bags, bulk items and large appliances will not be collected without a refuse sticker.**
- These refuse carts are the property of Republic Services and are to be used for household refuse only; yard waste and recycling must be placed in separate containers. A second refuse cart is available for an additional charge. Please contact the City at (708) 343-8700 for prices and details.
- Please place your refuse cart at least three feet away from trees and your recycling cart. These containers should be placed with the handles and wheels facing your house.
- Extra household refuse that will not fit in your refuse cart may be placed out for collection in a garbage can or plastic bag with a Northlake refuse sticker attached. Please loop stickers around garbage can handles; stickers should be affixed to plastic bags. Garbage cans must be no larger than 32 gallons, have two handles, and weigh no more than 50 pounds. Oversize or overweight cans will not be collected.
- By law, tires, electronic items and liquids can not be accepted for collection. If you have questions about how to properly dispose of these items, please contact the village at (708) 343-8700.
- Bulk items that do not fit in refuse carts may be placed at the curb for pickup. Place a Northlake refuse sticker on each bulk item or large appliance. Bulk items include sofas, tables, mattresses, box springs, bookcases, dressers, and large appliances. Please contact Republic Services at (708) 345-7050 in advance to arrange for the collection of large appliances.
- In order to be collected, carpet must be cut into four-foot lengths and securely bound with tape, rope or twine in rolls or bundles with a sticker attached to each roll or bundle. Rolls and bundles of carpeting must not be more than two feet in diameter and 60 pounds in weight. Loose, unbundled carpeting requires a special pickup or temporary container.

Special Collections and Temporary Large Containers

- Up to one cubic yard of construction material from an on-site project will be collected provided it is placed out for collection in an approved container or is securely bundled (no more than four feet in length and two feet in diameter); containers or bundles must weigh no more than 50 pounds each. Each container or bundle must have a sticker attached. Larger amounts of construction and building materials, sod, earth, concrete, rocks and loose material that does not fit in a can or bag are collected as a special pickup. Please contact Republic Services at (708) 345-7050 for a quote and to schedule a collection.
- For larger construction or cleanup projects, temporary large containers are available through Republic Services. Please contact Republic Services at (800) 345-1408 for prices and availability.

HOUSEHOLD HAZARDOUS WASTE

- Materials such as paint, pesticides, poison, cleaning solvents, gasoline, used oil, and other automotive fluids are considered to be Household Hazardous Waste. Flammable, toxic, corrosive or reactive products should not be included with your regular refuse for disposal. For information on options for disposal of these items, please contact the West Cook County Solid Waste Agency at (708) 453-9100 or check the "Household Hazardous Collection Program" section of the Solid Waste Agency's website at www.WestCook.org.

EWaste

- **Effective January 1, 2012, many electronic items including computers, monitors and televisions are banned from landfill disposal. Both the City of Northlake and Leyden Township accept these items for recycling. Please check the City website at www.northlakecity.com or contact the City at (708) 343-8700 for more information.**

YARD WASTE COLLECTION

- Yard waste is collected on Friday from April 1st through December 1st. Yard waste consists of grass clippings, twigs, brush, leaves and plant materials such as weeds, unwanted plants and roots.
- Please make sure material is free of dirt. Earth, sod, rocks, and stones are not considered yard waste.
- Do not mix yard waste with refuse or recycling. Each is collected separately and transported to a different processing or disposal facility.

Containers

- Grass clippings, leaves and plant material must be placed in 32-gallon biodegradable paper bags or 32-gallon refuse cans. Oversize cans will not be emptied. If a can is used, it must be clearly marked "Yard Waste" and placed so the collection driver can see it from the alley or street. Yard Waste decals are available at the City Hall.
- The maximum weight of these cans or bags is 60 pounds.

Brush

- Brush must be bundled with natural rope or twine. Please do not use plastic binding or metal.
- Bundles must be no more than four feet in length and two feet in diameter. Individual branches must be no more than three inches in diameter.
- The maximum weight of bundles is 60 pounds.
- The Public Works Department removes oversize and unbundled brush and branches from the parkway on a scheduled basis. Please call the Public Works Department at (708) 562-0940 between 7:30 a. m. and 3:30 p.m. for information on the pickup schedule.

Please note: Allied Waste is now operating under the name of Republic Services. Its address and phone number are unchanged.

LOOK INSIDE FOR IMPORTANT INFORMATION ON RECYCLING.

Printed using post consumer recycled content.

City of Northlake
Recycling Collection Services

PAPER MATERIALS

Newspaper
- all newspaper inserts acceptable

Magazines and Catalogs
- glossy and non-glossy accepted

Telephone Directories
- covers do not need to be removed

Kraft Brown Paper Bags
- paper grocery bags

Corrugated Cardboard
- cardboard boxes
- pizza boxes- only if no food *residue*

Paperboard (Chipboard)
- cereal boxes
- pasta boxes
- clothing boxes
- tissue boxes

Wet Strength Carrier Stock
- carriers for beer and soda

Frozen Food Boxes

Junk Mail
- brochures
- advertisements
- flyers
- post cards
- greeting cards
- window envelopes

Mixed Paper
- stationery
- computer paper
- notebook paper
- typing paper
- post-it/notes
- bond envelopes

NO paper or cardboard with food residue

NON-PAPER MATERIALS

PLASTIC

PET (♳) Plastic Bottles & Containers
- 2-liter soda bottles
- plastic beverage containers
- plastic plates and trays
- plastic flower pots
- other #1 non-bottle shaped containers

HDPE (♴) Plastic Bottles & Containers
- laundry detergent
- milk and water bottles
- plastic cups
- margarine tubs
- baby wipe containers
- shampoo and personal care bottles
- other #2 non-bottle shaped containers

PVC (♵) Bottles
- health and beauty-aid bottles

LDPE (♶) Bottles and Containers
- ice cream tubs
- margarine tubs
- misc. dairy product containers

PP (♷) Bottles and Containers
- yogurt tubs
- cottage cheese tubs
- sour cream tubs
- syrup bottles
- misc. condiment bottles

OTHER (♸) Containers

Plastic 6- & 12-pack rings

NO film plastic, plastic wrap, or plastic bags

NO packing peanuts or styrofoam blocks

NO polystyrene foam materials (code ♻)

NO motor oil, anti-freeze, pool chemical, or other hazardous waste containers

METAL CONTAINERS

Rinse clean of food or other products

- aluminum cans
- aluminum foil
- steel or tin cans
- empty aerosol cans
- aluminum baking trays/pie plates
- empty paint cans- lids off, must be scraped clean

NO plastic paint cans or buckets

NO gasoline cans

NO hazardous chemical cans

GLASS CONTAINERS

Rinse clean of food or other products
Remove all caps and lids

- bottles and jars only
- brown, green, and clear glass

NO mirrors, ceramics or window glass accepted

MILK CARTONS & DRINK BOXES

Please empty, rinse & flatten (Straws may be included)

- gable top milk and juice cartons
- juice boxes

RECYCLING COLLECTION GUIDELINES

General Provisions

- Carts may be emptied by mechanical lifters. **Recycling carts should be placed so the wheels and handle are facing your house.** Please do not place your cart under low tree branches, within three feet of mailboxes, other improvements or other containers.
- If you have additional material that will not fit in your cart, it may be placed out for collection in recycling bins or paper bags. Recyclable material should not be placed in plastic bags.
- Please place recycling items in your recycling cart for weekly collection.
- Carts are the property of Republic Services. Do not remove your cart from your property.

Preparation of Material

- All food and beverage containers should be rinsed and free of food. Please remove caps and lids. **You do not need to separate paper from non-paper materials.**
- Please do not recycle paper products that have been soiled with food residue, such as paper plates and pizza boxes with any food contamination.
- Please cut or fold corrugated containers into three foot by three foot pieces so they can fit into truck compartments. Flatten all corrugated cardboard, paperboard and wet strength carrier stock and remove any non-paper packing materials.

Check out the City of Northlake website at www.northlakecity.com for seasonal information concerning household waste, yard waste, and recycling.

APPENDIX 23

Compliance Documentation – Public Participation/Involvement

NORTHLAKE, IL
The City of Friendly People

Public Works

Address

100 W. Palmer, Northlake, Illinois 60164

Phone

708-562-0940

Personnel

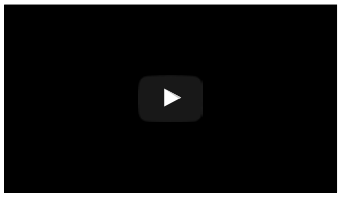
Dale Roberts droberts@northlakecity.com
Superintendent of Public Works

Mark Rail mrail@northlakecity.com
Foreman

Brian W. Duncan bduncan@northlakecity.com
Foreman

Liza Montalvo nlpw@northlakecity.com
Administrative Assistant

DISCOVER NORTHLAKE, IL THE CITY OF FRIENDLY PEOPLE



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Keeping citizens informed.

Most Wanted

About

The Public Works Department for the City of Northlake is in charge of the maintenance of city streets, alleys and bridges and the maintenance of all City owned property, including parks. Maintenance of city streets includes removal of snow, street sweeping and crack filling.

The Public Works Facility, located at 100 W. Palmer, houses all administrative, street, parkway maintenance and vehicle repair services.

The Department of Public Works employs 13 workers and maintains approximately 47 miles of City streets, parking lots, storm sewers, water mains, parkways, and a fleet of City vehicles.

If you have any questions regarding the services that the Public Works Department provides, please call the Public Works Facility at (708) 562-0940.

Our Mission is to deliver quality services to enhance the living and working environment of the City of Northlake.

Animal Control Program

Branch Pick-Up

Electronics Recycling / Collection

Free Mulch

Hazardous Waste

Sewer Back-up

Sidewalk Replacement

Tree Planting Program

Tree Pruning

Tree Removal

PAY YOUR CITY VIOLATIONS AND TICKETS

Quicket SOLUTIONS

UPCOMING EVENTS

Finance and City Council Meeting
Oct 3 2016

Community Events and Affairs Commission
Oct 4 2016

Youth Commission
Oct 12 2016

Finance and City Council Meeting
Oct 17 2016

Senior Citizen's Commission
Oct 19 2016

all events

CALENDAR

<< Sep 2016 >>

S	M	T	W	T	F	S
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1

QUICK LINKS

Pay Your Water Bill
Pay Your City Violation/Ticket
View Our Ordinances

LOCATION

© City of Northlake, IL

Return to top of page

APPENDIX 24

Compliance Documentation
Illicit Discharge Detection and Elimination

Function

The Addison Creek River Conservancy District was formed in 1956 to serve an area in the City of Northlake, south of Fullerton Avenue. The population of the District is approximately 9,000. The District provides for erosion control and flood mediation within the area, as well as general maintenance of Addison Creek that lies within the District.

Term

5 years

Confirmation

Yes, by the Cook County Board for the two (2) presidential appointments

Compensation

The president of the District receives $3,000/year, while all other trustees receive $2,800.00/year

Qualifications

Required to be a resident in the territory of the District.

Composition

Five (5) trustees; two (2) appointed by the President of Cook County Board of Commissioners and three (3) appointed by the Mayor and City Council of Northlake

Authority

70 ILCS 2105/1

ARTICLE A. GARBAGE AND REFUSE

4-3A-1: DEFINITIONS:

When used in this article, the following words and terms shall have the meanings ascribed to them in this section:

ASHES: The residue from burning of wood, coal, coke or other combustible materials.

GARBAGE: Putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.

LITTER: Any garbage, refuse, rubbish, handbills and all other waste material.

REFUSE: All putrescible and nonputrescible solid wastes, except body wastes, including garbage, rubbish and ashes.

RUBBISH: Nonputrescrible solid wastes, excluding ashes, consisting of both combustible and noncombustible wastes such as paper, cardboard, tin cans, glass, bedding, crockery and similar materials. (1976 Code § 21-1-1)

4-3A-2: STORAGE OF GARBAGE AND REFUSE[1]:

A. Containers Required: Every owner or his agent or occupant of any house, building, flat, apartment or tenement in the city where people reside, board or lodge shall at all times maintain in good order and repair containers for garbage. Regulation of quantity and type of containers shall be set forth from time to time for compliance with state and government laws. (1976 Code § 21-1-2; amd. 1992 Code)

B. Container Specifications And Location:

1. One- Through Four-Family Residences: The garbage containers used at any one-, two-, three- or four-family residential dwelling are to be constructed of rustproof galvanized metal or a heavy duty plastic or rubber type material with handles attached and tightfitting covers and shall have a capacity of not less than twenty (20) nor more than thirty (30) gallons. All such garbage containers must be made identifiable by painting the house number on each container. (1976 Code § 21-1-3)

2. Other Residences; Businesses: All containers must be placed on a five inch (5") thick concrete slab with wire mesh reinforcement atop a four inch (4") base of stone. Each slab shall be surrounded by a six foot (6') high privacy fence of the following type: wood, brick or wire with inserts. The entrance and exit to and from the containers shall be protected by a gate which shall be part of the fence.

The size of each concrete slab and fence shall be based on the sizes of the containers. The concrete slab shall be three feet (3') wider than the container on each side; two feet (2') longer in the rear; and one foot (1') longer in front.

All existing commercial retail businesses and dwellings containing five (5) or more apartments shall have six (6) months from the date of passage of this subsection B2 to comply. (Ord. O-25-93, 7-19-1993)

3. Dumpsters For Special Pick Ups: A licensed scavenger[2] shall obtain a permit from the department of health and inspectional services prior to placing any dumpster or any other container with a capacity in excess of two (2) cubic yards designed or used to hold refuse or garbage on any public or private property. Said permits shall be issued for no more than seven (7) consecutive days but may be renewed upon application to the department of health and inspectional services. No such dumpster or container may be placed on public property unless it shall have affixed to it reflective material or warning signals or devices on all sides within the public way, subject to the approval of the department of health and inspectional services. (Ord. O-19-90, 4-16-1990; amd. 1992 Code)

4. Plastic Garbage Bags: Plastic garbage bags shall be permissible; provided, that they are closed securely by tying the top, and provided, that they meet the requirements set forth by the department of health and inspectional services. (1976 Code § 21-1-3)

C. Placement Of Containers For Pick Up: Except in the case of those buildings where the owner or occupant is required to cause the removal of garbage or refuse therefrom at his own cost or expense, the standard container, can or receptacle shall be placed in the following manner:

1. Alley Collection: At the alley lot line on the premises served so as to be immediately accessible to garbage and refuse collection vehicles. The owner or his agent shall provide suitable space at the alley line for such container, can or receptacle or cause all garbage and refuse produced therein to be removed at his own cost and expense. (1976 Code § 21-1-4)

2. Curb Collection: Trash, refuse and garbage may not be placed out on a parkway, curb area or street for pick up prior to five o'clock (5:00) P.M. on the day prior to the scheduled pick up date, and empty containers must be removed from the parkway, curbside or street not later than seven o'clock (7:00) P.M. on the day of the pick up.

   Any person violating the terms of this subsection shall be fined not more than five hundred dollars ($500.00). (Ord. O-21-89, 7-19-1989; amd. 1992 Code)

   No container, can or receptacle used for the storage, collection and removal of garbage and other refuse shall be placed so as to constitute a nuisance to adjacent property or to the occupants thereof. (1976 Code § 21-1-4)

4-3A-3: COLLECTION OF GARBAGE AT RESIDENCES[3]:

All containers or receptacles containing garbage and all containers or receptacles containing ashes, tin cans, bottles and other refuse shall be collected from the parkways in front of the residences in the

city. Said collections of garbage and refuse shall be made not less than once in each week. (1976 Code § 21-1-5; amd. Ord. O-21-89, 7-19-1989)

4-3A-4: UNLAWFUL DEPOSITS:

A. Generally:

1. No garbage or refuse of any kind shall be deposited in any street, alley or public way, except as provided in this chapter, and no such refuse shall be so placed that it can be blown about or scattered by the wind. (1976 Code § 21-1-5)

2. No person shall cast, throw, sweep, sift or deposit in any manner in or upon any public way or upon the waters of any creek or waterway or public sewer or drain within the city any kind of dirt, rubbish or waste article whatsoever, whether liquid or solid[4] nor shall any person cast, throw, sweep, sift or deposit any of the aforementioned items anywhere within the jurisdiction of the city in such manner that it may be carried or deposited, in whole or in part, by the action of the sun, wind, rain or snow into any of the aforementioned places[5].

   This subsection A2 shall not apply to the deposit of material under a permit authorized by any ordinance of the city nor to the goods, wares or merchandise deposited upon any public way or other public place, temporarily, in the necessary course of trade and removed therefrom within two (2) hours after being so deposited or to articles or things deposited in or conducted into the sewer system through lawful drains in accordance with the ordinances of the city relating thereto[6]. (Ord. O-23-79, 11-20-1979)

B. Deposits On Private Property: No person shall place, deposit, leave or dump any trash, ashes, broken articles, garbage, junk or refuse or waste material of any kind on any premises in the city without the consent of the owner or tenant in possession of such premises. For the purpose of this subsection, vehicles or parts of vehicles not in condition for normal use shall be considered junk or trash[7]. (1976 Code § 21-1-6)

C. Refuse Or Garbage Dumps: No person shall maintain or operate any refuse or garbage dump in the city. Any place where refuse or garbage is deposited, other than on the premises where the same originated, is hereby defined to mean a refuse or garbage dump. Any such dump is hereby defined to be a nuisance. (1976 Code § 21-1-7)

4-3A-5: LITTER CONTROL:

A. Littering In Public Places: No person shall:

1. Throw or deposit litter in or upon any street, alley, sidewalk or other public place within the city except in public receptacles, in authorized private receptacles or city dumps.

2. Sweep into or deposit in any gutter, street, alley or other public places in the city the accumulation of litter from any building or lot or from any public or private sidewalk and driveway. Persons owning or occupying property shall keep the sidewalk and parkway in front of their premises free from litter.

3. While a driver or passenger in a vehicle, throw or deposit litter upon any street, alley or other public place within the city or upon private property. (1976 Code § 21-1-9)

B. Litter On Private Property: No person shall throw or deposit litter on any private property within the city whether owned by such person or not; except, that the owner or person in control of private property may maintain private receptacles for collection in such manner that litter may be prevented from being carried or deposited by the elements upon any street, alley, sidewalk or other public place or upon any private property.

The owner or person in control of any private property shall at all times maintain the premises free of litter; provided, that this subsection shall not prohibit the storage of litter in private receptacles for collection, which receptacles shall be maintained in a clean and sanitary condition and shall be so constructed as to prevent the litter deposited therein from being carried or deposited by the elements upon any street, alley, sidewalk or other public place or upon any private property. (1976 Code § 21-1-10)

C. Penalties; Signs Posted: Any person violating this section, upon conviction, shall be fined not more than five hundred dollars ($500.00) for each offense. A separate offense shall be deemed committed on each day during or on which a violation occurs or continues.

The director of health and inspectional services is authorized to post appropriate "NO LITTERING" signs showing the penalty herein provided. (1976 Code § 21-1-11; amd. 1992 Code)

4-3A-6: CONTROL OF WINDBLOWN REFUSE[8]:

A. Methods Of Control: Dusts and other types of air pollution borne by the wind from such source as storage areas, yards, roads and so forth within lot boundaries shall be kept to a minimum by such measures as wetting piles, landscaping, paving, oiling or other acceptable means.

B. Precautions To Be Taken:

1. No person shall:

a. Cause or permit the handling, loading, unloading, reloading, storing, transferring, transporting, placing, depositing, throwing, discarding or scattering of any ashes, fly ash, cinders, slag or dust collected from any combustible process, any dust, dirt, chaff, wastepaper, trash, rubbish,

waste or refuse matter of any kind or any other substance or material whatever which is likely to be scattered by the wind or is susceptible to being windborne without taking reasonable measures or precautions so as to minimize atmospheric pollution or nuisance to other property.

b. Operate or maintain or cause to be operated or maintained any building, structure, premises, open area, right of way, storage pile of materials, vehicle or construction, alteration, building, demolition or wrecking operation or any other enterprise which has or involves any matter, material or substance likely to be scattered by the wind or susceptible to being windborne without taking reasonable precautions or measures so as to minimize pollution nuisance to other property.

2. Trucks carrying material subject to becoming airborne shall be operated in such a manner as to keep such airborne material to a minimum by such measures as wetting the load, covering the load with canvas, lessening the load or other acceptable means.

3. All vehicles used for the carrying of refuse shall be strong and tight so that no part of such contents or load shall fall, leak or spill therefrom onto any public street, alley or private property, and be adequately and tightly covered so as to prevent the same from being offensive or give access to flies[9]. (1976 Code § 21-1-12)

4-3A-7: CHARITABLE COLLECTION BOXES PROHIBITED:

A. Prohibited: Charitable collection boxes are hereby prohibited. For purposes of this section "charitable collection box" shall mean an unattended canister, box receptacle or similar device used for soliciting and collecting donations of personal property.

B. Penalty: Any person found guilty of violating this section shall be fined in an amount not to exceed one thousand dollars ($1,000.00). Each day that a violation exists shall constitute a separate offense.

C. Effective Date: The prohibition imposed shall take effect on July 1, 2009, and all outstanding permits authorizing charitable collection boxes are revoked as of that date and no renewal permit shall be issued following the effective date hereof. (Ord. O-18-2009, 6-1-2009)

4-3A-8: REFUSE COLLECTION FEE:

Fees shall take effect on January 1, 2012.

A. Fee:

1. Residential: A refuse collection fee of nine dollars ($9.00) per month per household shall be imposed on all residential properties.

2. Condominium: The refuse collection fee for condominium buildings shall be five dollars ($5.00) per month per unit. (Ord. O-19-2011, 11-7-2011)

ARTICLE A. WATER POLLUTION[1]

4-4A-1: DEFINITIONS:

When used in this Article, the following words and terms shall have the meanings ascribed to them in this Section:

OUTLET: The point of discharge of an effluent or other substance into the underground, ditch or other area, watercourse or other body of surface or ground water and onto any surface or place.

WATER POLLUTION: An impairment of the quality of the underground or surface waters by sewage, dead animals, garbage, discarded metal articles, industrial wastes or any other thing which adversely affects the use of such water for domestic, industrial, agricultural, navigational, recreational or other purposes.

WATERCOURSE: Any channel, either natural or artificial, for the flow of water. (1976 Code §20-1-1)

4-4A-2: UNLAWFUL POLLUTION:

A. Generally: No person shall discharge or deposit wastes or sewage which creates a public nuisance, a menace to the public safety, pollution or contamination of underground or surface waters or impairs the use of any private sewer, storm drain channel or public or private property.[2] (1976 Code §20-1-2)

B. Pollution of Swimming Pools: Every person who illegally pollutes in any manner the water of any swimming pool shall be guilty of violating this Article. (1976 Code §20-1-11)

4-4A-3:PERMIT TO DISCHARGE:

A. Permit Required: No person shall discharge without a permit into any watercourse, tributary thereof, retention pond or storm sewer; onto the ground, into the ground by percolation orinjection, or into any ditch; or into the air, any of the following:

1. Wastes, sewage, contaminants, polluted water or soil;

2. Water or soil that has been treated for wastes, sewage, contaminants or any pollution;

3. Water or soil used in the treatment of wastes, sewage, contaminants or any pollution.

Said permit shall be subject to the review of the City Engineer and approval of the City Council. The City Council may place any conditions, stipulations or requirements on the applicant as a condition to issuance of the permit which it deems in the best interest of the City and in order to protect the health, safety and welfare of the community. (Ord. 0-21-93, 6-7-93)

B. Application for Permit: The application for a discharge permit shall be in writing, signed by the applicant and filed with the City. The application shall state:

1. Name and address of applicant;

2. Type of wastes or sewage to be discharged;

3. Quantity to be discharged, maximum amounts per hour per day;

4. Treatment given to discharge, if any;

5. Proof by affidavit of compliance with all ordinances and County, State and Federal laws concerning pollution of waterways. (1976 Code §20-1-5; 1992 Code)

C. Investigations and Inspections:

1. Investigation and Inspection of Applicant:

a. The City shall cause an investigation to be made of the facts stated in the application for a permit to discharge into the City waterways.

b. The City shall cause an inspection to be made of the premises and facilities to be used for the discharges to ascertain the fitness of such premises and facility to comply with the ordinances and County, State and Federal laws concerning water pollution. (1976 Code §20-1-6; 1992 Code)

2. Periodic Inspections: The City shall inspect the premises and facilities of any permittee hereunder to insure compliance is being had with all ordinances and County, State and Federal laws concerning water pollution. (1976 Code §20-1-7; 1992 Code)

3. Inspection Fees: The applicant shall be charged all actual costs to the City for the initial inspections, all subsequentinspections, investigations, testing of air, soil, water and ground, monitoring of discharges, equipment and operations and all other necessary costs. (Ord. 0-21-93, 6-7-93)

D. Issuance of Permit: Upon fulfilling the requirements of this Section the City shall grant a discharge permit to the applicant. (1976 Code §20-1-9; 1992 Code)

4-4A-4: REQUIRED TREATMENT OF POLLUTED WATERS:

No person shall discharge from any outlet any sanitary sewage, industrial wastes or other polluted liquids except when the same has been treated as required by law. (1976 Code §20-1-3)

4-4A-5: DETERGENTS:

A. Definitions: When used in this Section, the following words and terms shall have the meanings ascribed to them herein:

DAIRY EQUIPMENT, BEVERAGE EQUIPMENT and FOOD PROCESSING EQUIPMENT: That equipment used in the production of milk and dairy products, foods and beverages including the processing, preparation or packaging thereof for consumption.

INDUSTRIAL CLEANING EQUIPMENT: Machinery and other tools used in cleaning processes during the course of industrial manufacturing, production and assembly.

MACHINE DISHWASHER: Equipment manufactured for the purpose of cleaning dishes, glassware and other utensils involved in food preparation, consumption or use, using a combination of water agitation and high temperatures.

POLYPHOSPHATE BUILDER or PHOSPHOROUS: A water softening and soil suspending agent made from condensed phosphates, including pyrophosphates, triphosphates, tripolyphosphates, metaphosphates and glassy phosphates used as a detergent ingredient but shall not include "polyphosphate builders" or "phosphorous" which is essential for medical, scientific or special engineering use under such conditions and regulations as may be prescribed, after hearing, by the Department of Health and Inspectional Services.

RECOMMENDED USE LEVEL: The amount of synthetic detergent or detergent which the manufacturer thereof recommends for use per wash load, at which level, the synthetic detergent or detergent will effectively perform its intended function.

SYNTHETIC DETERGENT or DETERGENT: Any cleaning compound which is available for household use, laundry use, other personal uses or industrial use which is composed of organic and inorganic compounds, including soaps, water softeners, surface active agents, dispersing agents, foaming agents,buffering agents, builders, fillers, dyes, enzymes and fabric softeners, whether in the form of crystals, powders, flakes, bar, liquids, sprays or any other form. (1976 Code §20-1-12)

B. Detergents to be Labeled: No person shall sell, offer or expose for sale any synthetic detergent or detergent, whether in the form of crystals, powders, flakes, bars, liquids, sprays or any other form, in the City unless the container, wrapper or other packaging thereof shall be clearly labeled with respect to its polyphosphate builder or phosphorus ingredient content clearly and legibly set forth thereon in terms of percentage of phosphorus by weight, expressed as elemental phosphorus per container, wrapper or other packaging thereof, as well as grams of phosphorus, expressed as elemental phosphorus, per recommended use level. (1976 Code § 20-1-13)

C. Phosphate Content Limited:

1. No person shall sell, offer or expose for sale:

   a. Any synthetic detergent or detergent containing more than eight and seven-tenths percent (8.7%) of phosphorus by weight, expressed as elemental phosphorus, within the city.

   b. Any synthetic detergent or detergent which requires a recommended use level of said synthetic detergent or detergent which contains more than seven (7) grams of phosphorus by weight, expressed as elemental phosphorus, within the city. (1976 Code § 20-1-14)

   c. Any synthetic detergent or detergent containing any phosphorus, expressed as elemental phosphorus, including synthetic detergents or detergents manufactured for machine dishwashers, dairy equipment, beverage equipment, food processing equipment and industrial cleaning equipment, within the city, from and after January 1, 1977. (1976 Code § 20-1-14; amd. Ord. O-08-76, 4-13-1976)

2. Synthetic detergents or detergents manufactured for use in machine dishwashers, dairy equipment, beverage equipment, food processing equipment and industrial cleaning equipment shall not be subject to the limitations set forth in subsections C1a and C1b of this section, but are hereby made expressly subject to the provisions of subsection C1c of this section.

3. The concentration of phosphorus by weight, expressed as elemental phosphorus, in any synthetic detergent or detergent shall be determined by the current applicable method prescribed by the American society for testing and materials (ASTM). (1976 Code § 20-1-14)

D. Penalties: Any person found guilty of violating, disobeying, omitting, neglecting, or refusing to comply with, or resisting or opposing the enforcement of any of the provisions of this section, except when otherwise specifically provided, shall bepunished by a fine of not more than five hundred dollars ($500.00) or shall be punishable as a misdemeanor by incarceration in the county jail for a term not to exceed six (6) months under procedures set forth in section 5/1-2-1.1 of the Illinois municipal code, as amended[3], or by both fine and imprisonment. A separate and distinct offense shall be regarded as committed each day on which such person shall continue or permit any such violation or failure to comply is permitted to exist after notification thereof. (1976 Code § 20-1-15; amd. 1992 Code)

ARTICLE B. SEWER USE AND SERVICE

7-7B-1: RULES AND DEFINITIONS:

"Shall" is mandatory; "may" is permissible. Unless the context specifically indicates otherwise, the meanings of the terms used in this article shall be as follows:

FEDERAL GOVERNMENT:

Administrator: The administrator of the U.S. environmental protection agency.

Federal Act: The federal clean water act (33 USC 466 et seq.) as amended, (Pub. L. 95-217).

Federal Grant: The U.S. government participation in the financing of the construction of treatment works as provided for by title II grants for construction of treatment works, of the act and implementing regulations.

LOCAL GOVERNMENT:

Approving Authority: The director of public services.

City: The city of Northlake.

This Code: The code of the city of Northlake.

NPDES PERMIT: Any permit or equivalent document or requirements issued by the administrator or, where appropriated by the director, after enactment of the federal clean water act to regulate the discharge of pollutants pursuant to section 402 of the federal act.

PERSON: Any and all persons, natural or artificial, including any individual, firm, company, municipal or private corporation, association, society, institution enterprise, governmental agency or other entity.

SEWER TYPES AND APPURTENANCES:

Building Drain: That part of the lowest piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of the building and conveys it to the building sewer or other approved point of discharge, beginning five feet (5') (1.5 m) outside the inner face of the building wall.

Building Sewer: The extension from the building drain to the public sewer or other place of disposal.

Combined Sewer: A sewer which is designed and intended to receive wastewater, storm, surface and ground water drainage.

Easement: An acquired legal right for the specific use of land owned by others.

Lift Station: An apparatus or pump used for pumping wastewater or sewage from a lower to higher elevation, particularly where the elevation of the sources is not sufficient for gravity flow.

Public Sewer: A sewer provided by or subject to the jurisdiction of the city. It shall also include sewers within or outside the city boundaries that serve one or more persons that ultimately discharge into the city sanitary (or combined) sewer system, even though those sewers may not have been constructed with city funds.

Sanitary Sewer: A sewer that conveys sewage or industrial wastes or a combination of both, and into which storm, surface and ground water or polluted industrial wastes are not intentionally admitted.

Sewer: A pipe or conduit for conveying sewage or any other waste liquids, including storm, surface and ground water drainage.

Sewerage: The system of sewers and appurtenances for the collection, transportation and pumping of sewage.

Storm Sewer: A sewer that carries storm, surface and ground water drainage but excludes sewage and industrial wastes other than unpolluted cooling water.

Stormwater Runoff: That portion of the precipitation that is drained into the sewers.

STATE GOVERNMENT:

Director: The director of the Illinois environmental protection agency.

State Act: The Illinois anti-pollution bond act of 1970.

State Grant: The state of Illinois participation in the financing of the construction of treatment works as provided for by the Illinois anti-pollution bond act and for making such grants as filed with the secretary of state of the state of Illinois.

TREATMENT:

Pretreatment: The treatment of wastewaters from sources before introduction into the wastewater treatment works.

Wastewater Treatment Works: An arrangement of devices and structures for treating wastewater, industrial wastes and sludge. Sometimes used as synonymous with "waste treatment plant" or "pollution control plant".

TYPES OF CHARGES:

Basic User Charge: The basic assessment levied on all users of the public sewer system.

Capital Improvement Charge: A charge levied on users to improve, extend or reconstruct the sewage treatment works.

Debt Service Charge: The amount to be paid each billing period for payment of interest, principal and coverage of outstanding loan, bond, etc.

Local Capital Cost Charge: Charges for costs, other than the operation, maintenance and replacement costs, i.e. debt service and capital improvement costs.

Replacement: Expenditures for obtaining and installing equipment, accessories or appurtenances which are necessary during the useful life of the treatment works to maintain the capacity and performance for which such works were designed and constructed. The term "operation and maintenance" includes replacement.

Sewerage Fund: The principal accounting designation for all revenues received in the operation

of the sewerage system.

Surcharge: The assessment, in addition to the basic user charge and debt service charge, which is levied on those persons whose wastes are greater in strength than the concentration values established in this article.

Useful Life: The estimated period during which the collection system and/or treatment works will be operated.

User Charge: A charge levied on users of treatment works for the cost of operation, maintenance and replacement.

Wastewater Service Charge: The charge, per quarter or month, levied on all users of the wastewater facilities. The service charge shall be computed as outlined in this article and shall consist of the total or the basic user charge, the local capital cost and a surcharge, if applicable.

USER TYPES:

Commercial User: Includes transit lodging, retail and wholesale establishments or places engaged in selling merchandise or rendering services.

Control Manhole: A structure located on a site from which industrial wastes are discharged. Where feasible, the manhole shall have an interior drop. The purpose of a "control manhole" is to provide access for the city representative to sample and/or measure discharges.

Industrial Users: Includes establishments engaged in manufacturing activities involving the mechanical or chemical transformation of materials of substance into products.

Institutional/Governmental User: Includes schools, churches, penal institutions and users associated with federal, state and local governments.

Residential User: All dwelling units such as houses, mobile homes, apartments and permanent multi-family dwellings.

User Class: The type of user, "residential", "institutional/governmental", "commercial" or "industrial" as defined herein.

WASTEWATER AND ITS CHARACTERISTICS:

BOD (Denoting Biochemical Oxygen Demand): The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty degrees Celsius (20°C), expressed in milligrams per liter.

Effluent Criteria: Are defined in any applicable NPDES permit.

Floatable Oil: Oil, fat or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility. A wastewater shall be considered free of floatable fat if it is properly pretreated, and the wastewater does not interfere with the collection system.

Garbage: Solid wastes from the domestic and commercial preparation, cooking and dispensing of food and from the handling, storage and sale of food.

Industrial Waste: Any solid, liquid or gaseous substance discharged, permitted to flow or escaping from any industrial, manufacturing, commercial or business establishment or process or from the development, recovery or processing of any natural resource as distinct from sanitary sewage.

Major Contributing Industry: An industrial user of the publicly owned treatment works that: a) Has a flow of fifty thousand (50,000) gallons or more per average workday; or b) has a flow greater than ten percent (10%) of the flow carried by the municipal system receiving the waste; or c) has in its waste, a toxic pollutant in toxic amounts as defined in standards issued under section 307(a) of the federal act; or d) is found by the permit issuing authority, in connection with the issuance of the NPDES permit to the publicly owned treatment works receiving the waste, to have significant impact, either singly or in combination with other contributing industries, on that treatment works or upon the quality of effluent from that treatment works.

Milligrams Per Liter: A unit of the concentration of water or wastewater constituent. It is 0.001 gram of the constituent in one thousand milliliters (1000 ml) of water. It has replaced the unit formerly used, commonly, parts per million, to which it is approximately equivalent, in reporting the results of water and wastewater analysis.

ppm: Parts per million by weight.

pH: The logarithm (base 10) of the reciprocal of the hydrogen ion concentration expressed by one of the procedures outlined in the IEPA division of laboratories manual of laboratory methods.

Population Equivalent: A term used to evaluate the impact of industrial or other waste on a treatment works or stream.

Properly Shredded Garbage: The wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch ($^1/_2$") (1.27 cm) in any dimension.

Sewage: Used interchangeably with "wastewater".

Slug: Any discharge of water, sewage or industrial waste which, in concentration of any given constituent or in quantity of flow, exceeds, for any period of duration longer than fifteen (15) minutes, more than five (5) times the average twenty four (24) hour concentration of flows during normal operation.

Suspended Solids (SS): Solids that either float on the surface of or are in suspension in water, sewage or industrial waste and which are removable by a laboratory filtration device. Quantitative determination of suspended solids shall be made in accordance with procedures set forth in the IEPA division of laboratories manual of laboratory methods.

Unpolluted Water: Water quality equal to or better than the effluent criteria in effect, or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the sanitary sewers and wastewater treatment facilities provided.

Wastewater: The spent water of a community. From this standpoint, of course, it may be a

combination of the liquid and water carried wastes from residences, commercial buildings, industrial plants and institutions, together with any groundwater, surface water and stormwater that may be present.

Water Quality Standards: Are defined in the water pollution regulations of Illinois.

WASTEWATER FACILITIES: The structures, equipment and processes required to collect, carry away and treat domestic and industrial wastes and transport effluent to a watercourse.

WATERCOURSE AND CONNECTIONS:

Natural Outlet: Any outlet into a watercourse, pond, ditch, lake or other body of surface or ground water.

Watercourse: A channel in which a flow of water occurs, either continuously or intermittently. (Ord. O-49-90, 8-20-1990; amd. Ord. O-06-94, 3-7-1994; Ord. O-23-2013, 11-18-2013)

7-7B-2: USE OF PUBLIC SEWERS REQUIRED:

A. It shall be unlawful for any person to place, deposit or permit to be deposited in any unsanitary manner on public or private property within the City or in any area under the jurisdiction of the City any human or animal excrement, garbage or other objectionable waste.

B. It shall be unlawful to discharge to any natural outlet within the City or in any area under the jurisdiction of the City any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this Article.

C. Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank cesspool or other facility intended or used for the disposal of sewage.

D. The owner of all the houses, buildings or properties used for human occupancy, employment, recreation or other purposes situated within the City and abutting on any street, alley or right of way in which there is now located or may in the future be located any public sanitary sewer of the City is hereby required, at his expense, to install suitable toilet facilities therein and to connect such facilities directly with the proper public sewer in accordance with the provisions of this Article within ninety (90) days after date of official notice to do so; provided, that public sewer is within two hundred feet (200') of property line. (Ord. O-34-90, 6-18-90)

7-7B-3: PRIVATE SEWAGE DISPOSAL:

7-7B-3-1: PRIVATE SEWAGE DISPOSAL CODE:

A. Code Adopted: A certain document, three (3) copies of which are on file in the office of the City Clerk being marked and designated as "The BOCA National Private Sewage Disposal Code, Second Edition, 1990", as published by the Building Officials and Code Administrators International, Inc., is hereby adopted as the Private Sewage Disposal Code of the City for the control of buildings and structures as herein provided, and each and all of the regulations, provisions, penalties, conditions and terms of said BOCA National Private Sewage Disposal Code are hereby referred to, adopted and made a part hereof as if fully set out in this Section, with the additions, insertions, deletions and changes, if any, prescribed in subsection B hereof or as may be amended by other provisions of this Article.

There is hereby adopted each and every revision of said Code hereinafter made, said Code being revised annually by BOCA International, Inc., and a new and revised edition of the Code being published every three (3) years. Said revised Code and all supplements thereto, when adopted by BOCA International Inc., shall supersede all other previous editions, supplements and printings in conflict therewith. The provisions of such Codes shall govern all matters covered therein to the extent that the same are not in conflict with any provisions of this City Code or other ordinances of the City.

B. Amendments to Code: The following sections are hereby revised as follows:

Section PS-100.1. City of Northlake
Section PS-104.1. July 1, 1990
Section PS-114.2. As may be adopted from time to time by the City Council
Section PS-117.4. Misdemeanor,$500.00, 30 days
Section PS-118.2. $50.00; $500.00
Section PS-404.2.5. July 1, 1990; July 1, 1991; July 1, 1992
Section PS-404.2.6. July 1, 1990; July 1, 1991
(Ord. O-33-90, 6-18-90)

7-7B-3-2: ADDITIONAL PRIVATE SEWAGE DISPOSAL REGULATIONS:

A. Private System Permitted: Where a public sanitary (or combined) sewer is not available under the provisions of subsection 7-7B-2D of this Article, the building sewer shall be connected to a private sewage disposal system complying with the provisions of this Section 7-7B-3-2. Such a system shall be approved by the Metropolitan Water Reclamation District of Greater Chicago (MWRD), Cook County Health Department or other regulatory agency as required.

B. Permit Requirements: Before commencement of construction of a private sewage disposal system, the owner shall first obtain a written permit. The application for such permit shall be made on a form furnished by the regulatory agency. The applicant shall supplement by any plans, specifications and other information as deemed necessary by the regulatory agency. All permit and inspection fees shall be paid to the regulatory agency at the time the application is filed.

C. Inspections: A permit for a private sewage disposal system shall not become effective until the installation is completed to the satisfaction of the regulatory agency. He shall be allowed to inspect the work at any stage of construction and, in any event, the applicant for the permit shall notify the regulatory agency when the work is ready for final inspection and before any underground portions are covered.

D. Construction Specifications: The type, capacities, location and layout of a private sewage disposal system shall comply with all recommendations of the State of Illinois Private Sewage Disposal Licensing Act and Code[1] and with the State of Illinois Environmental Protection Agency. No septic tank or cesspool shall be permitted to discharge to any natural outlet.

E. Connection to Public Sewer:

1. At such time as a public sewer becomes available to a property served by a private sewage disposal system, as provided in subsection 7-7B-2D of this Article, a direct connection shall be made to the public sewer in compliance with this Article, and any septic tanks, cesspools and similar private sewage disposal facilities shall be abandoned per the requirements of the regulatory agency.

2. When a public sewer becomes available, the building sewer shall be connected to said sewer within sixty (60) days, and the private sewage disposal system shall be cleaned of sludge and abandoned per the requirements of the regulatory agency.

F. Responsibility of Owner: The owner shall operate and maintain the private sewage disposal facilities in a sanitary manner at all times, and at no expense to the City.

G. Provisions Nonlimiting: No statement contained in this Section shall be construed to interfere with any additional requirements that may be imposed by any regulatory agency. (Ord. O-34-90, 6-18-90)

7-7B-4: BUILDING SEWERS AND CONNECTIONS:

A. Permit Requirements:

1. Permit Required: No unauthorized person shall uncover, make any connections with or opening into, use, alter or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and the City.

2. Classification of Permits: There shall be two (2) classes of building sewer permits:

   a. For residential wastewater service, and

   b. For commercial or industrial wastewater service. (Ord. O-34-90, 6-18-90)

   In either case, the owner or his agent shall make application on a special form furnished by the Metropolitan Water Reclamation District. The permit application shall be supplemented by any plans, specifications or other information considered pertinent in the judgment of the Metropolitan Water Reclamation District. For a residential sewer permit, there shall be a fee of four hundred dollars ($400.00) payable to the City at the time the application is filed. For a commercial or industrial sewer permit, there shall be a fee of one thousand dollars ($1,000.00) payable to the City at the time the application is filed. The industry, as a condition of permit authorization, must provide information describing its wastewater constituents, characteristics and type of activity. All other permit and inspection fees must be paid by the applicant to the Metropolitan Water Reclamation District and the City, as applicable. (Ord. O-34-90, 6-18-90; 1992 Code)

3. Restrictions on Issuance of Permit: A building sewer permit will only be issued and a sewer connection shall only be allowed if it can be demonstrated that the downstream sewerage facilities, including sewers, pump stations and wastewater treatment facilities, have sufficient reserve capacity to adequately and efficiently handle the additional anticipated waste load.

B. Separate Sewer Required: A separate and independent building sewer shall be provided for every building; except, that where one building stands at the rear of another or an interior lot, and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard or driveway, the building sewer from the front building may be extended to the rear building, and the whole considered as one building sewer.

C. Use of Old Building Sewers: Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the City, to meet all requirements of this Article.

D. Construction Specifications:

1. The size, slope, alignment, materials of construction of a building sewer and the methods to be used in excavating, placing of the pipe, jointing, testing and backfilling the trench shall all conform to the requirements of the Building and Plumbing Codes[2] or other applicable rules and regulations of the Metropolitan Water Reclamation District. In the absence of code provisions or in amplification thereof, the materials and procedures set forth in appropriate specifications of the American Society of Testing Materials, Water Pollution Control Federation Manual of Practice No. 9, and Standard Specifications for Water and Sewer Main Construction in Illinois shall apply.

2. Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by such a means which is approved in accordance with subsection G1 of this Section.

E. Connections to Public Sewers:

1. The applicant for the building sewer permit shall notify the Metropolitan Water Reclamation District and the City when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the Metropolitan Water Reclamation District and the City or a representative.

2. The connection of the building sewer into the public sewer shall conform to the requirements of the Building and Plumbing Codes[3] or other applicable rules and regulations of the City or the procedures set forth in appropriate specifications of the American Society of Testing Materials, Water Pollution Control Federation Manual of Practice No. 9, and Standard Specifications for Water and Sewer Main Construction in Illinois. All such connections shall be made gas-tight and watertight. Any deviation from the prescribed procedures and materials must be approved by the Metropolitan Water Reclamation District and the City.

F. Excavations: All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazards. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the City.

G. Discharges into System:

1. All disposal by any person into the sewer system is unlawful except those discharges in compliance with Federal Standards promulgated pursuant to the Federal Act and more stringent State and local standards.

2. No person(s) shall make connection of roof downspouts, exterior foundation drains, areaway drains or other sources of surface runoff or ground water to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

H. Liability of Owner: All costs and expense incident to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer. (Ord. O-34-90, 6-18-90)

7-7B-5: USE RESTRICTIONS:

7-7B-5-1: DISCHARGE OF EFFLUENT:

No person shall discharge, or cause to be discharged, any storm water, surface water, ground water, roof runoff, subsurface drainage, uncontaminated cooling water or unpolluted industrial process waters to any sanitary sewer.

Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers or to a natural outlet approved by the Metropolitan Water Reclamation District. Industrial cooling water or unpolluted process waters may be discharged, on approval of the Metropolitan Water Reclamation District, to a storm sewer, combined sewer or natural outlet. (Ord. O-34-90, 6-18-90)

7-7B-5-2: PROHIBITED SUBSTANCES:

No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

A. Any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquid, solid or gas.

B. Any waters or wastes containing toxic or poisonous solids, liquids or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, create a public nuisance or create any hazard in the receiving waters of the sewage treatment plant.

C. Any waters or wastes having a pH lower than 5.5 or having any other corrosive property capable of causing damage or hazard to structures, equipment and personnel of the sewage works.

D. Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewage works such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.

7-7B-5-3: MATERIALS UNDER SPECIAL REVIEW:

A. No person shall discharge or cause to be discharged the following described substances, materials, waters or wastes if it appears likely, in the opinion of the Metropolitan Water

Reclamation District, that such wastes can harm either the sewers, sewage treatment process or equipment, have an adverse effect on the receiving stream or can otherwise endanger life, limb, public property or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the Metropolitan Water Reclamation District will give consideration to such factors as the quantities of subject materials of construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree of treatability of wastes in the sewage treatment plant and maximum limits established by regulatory agencies. The substances prohibited are:

1. Any liquid or vapor having a temperature higher than one hundred fifty degrees (150°) Fahrenheit, (65°C).

2. Any waters or wastes containing toxic or poisonous materials or oils, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperatures between thirty two degrees and one hundred fifty degrees (32° - 150°) Fahrenheit (0°C - 65°C).

3. Any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor of three-fourths ($^3/_4$) horsepower (0.76 hp metric) or greater shall be subject to the review and approval of the Metropolitan Water Reclamation District and the City.

4. Any waters or wastes containing strong acid, iron pickling wastes or concentrated plating solution whether neutralized or not.

5. Any waters or wastes containing iron, chromium, copper, zinc or similar objectionable or toxic substances or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established by the Metropolitan Water Reclamation District for such materials.

6. Any waters or wastes containing phenols or other taste- or odor-producing substances in such concentrations exceeding limits which may be established by the Metropolitan Water Reclamation District as necessary after treatment of the composite sewage to meet the requirements of the State, Federal or other public agencies of jurisdiction for such discharge to the receiving waters.

7. Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Metropolitan Water Reclamation District in compliance with applicable State or Federal regulations.

8. Any wastes or waters having a pH in excess of 9.5.

9. Any mercury or any of its compounds in excess of 0.0005 mg/l as Hg at any time except as permitted by the Metropolitan Water Reclamation District in compliance with applicable State and Federal regulations.

10. No waste to any public sewer system shall contain more than ten (10) mg/l total cyanide; provided any sample tested shall not release more than two (2) mg/l of cyanide when tested at a pH of 4.5 and at a temperature of sixty six degrees (66°) Centigrade (150°F) for a period of thirty (30) minutes. Nothing in this subsection shall limit the authority of the Metropolitan Water Reclamation District of Greater Chicago from imposing more stringent limits on cyanide discharges.

11. Materials which exert or cause:

a. Unusual concentration of inert suspended solids (such as, but not limited to, Fullers earth, lime slurries and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate);

b. Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions);

c. Unusual BOD, chemical oxygen demand or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works;

d. Unusual volume of flow or concentrations of waste constituting "slugs" as defined herein.

12. Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of agencies having jurisdiction over discharge to the receiving waters.

B. If any waters or wastes are discharged or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated herein and/or which are in violation of the standards for pretreatment provided in 40 CFR 403, June 26, 1978, and any amendments thereto, and which, in the judgment of the Metropolitan Water Reclamation District, may have a deleterious effect upon the sewage works, processes, equipment or receiving waters or which otherwise create a hazard to life or constitute a public nuisance, the Metropolitan Water Reclamation District may:

1. Reject the wastes;

2. Require pretreatment to an acceptable condition for discharge to the public sewers;

3. Require control over the quantities and rates of discharge; and/or

4. Require payment to cover the added costs of handling and treating the wastes not covered by existing taxes or sewer charges, under the provisions of Section 7-7B-6 of this Article. If the Metropolitan Water Reclamation District permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the requirements of all applicable codes, ordinances and laws. (Ord. O-34-90, 6-18-90)

7-7B-5-4: INTERCEPTORS:

Grease, oil and sand interceptors shall be provided when, in the opinion of the Metropolitan Water Reclamation District and City, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts or any flammable wastes, sand or other harmful ingredients; except, that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Metropolitan Water Reclamation District and the City, and shall be located as to be readily and easily accessible for cleaning and inspection. (Ord. O-34-90, 6-18-90)

7-7B-5-5: PRELIMINARY TREATMENT:

Where preliminary treatment or flow-equalizing facilities are provided, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense. (Ord. O-34-90, 6-18-90)

7-7B-5-6: MEASUREMENTS, TESTS AND ANALYSES:

A. Each industry shall be required to install a control manhole and, when required by the Metropolitan Water Reclamation District, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable control manhole, together with such necessary meters and other appurtenances, in the building sewer to facilitate observation, sampling and measurement of the wastes. Such manhole, when required, shall be accessibly and safely located and shall be constructed in accordance with plans approved by the Metropolitan Water Reclamation District and City. The manhole shall be installed by the owner at his own expense, and shall be maintained by him so as to be safe and accessible at all times.

B. The owner of any property serviced by a building sewer carrying industrial wastes shall provide laboratory measurements, tests and analyses of waters and wastes to illustrate compliance with this Article and any special conditions for discharge established by the Metropolitan Water Reclamation District and the City or regulatory agencies having jurisdiction over the discharge.

The number, type and frequency of laboratory analyses to be performed by the owner shall be as stipulated by the Metropolitan Water Reclamation District, but no less than once per year, the industry must supply a complete analysis of the constituents of the wastewater discharge to assure that the Federal, State and local standards are being met. The owner shall report the results of measurements and laboratory analyses to the Metropolitan Water Reclamation District at such times and in such a manner as prescribed by the Metropolitan Water Reclamation District. The owner shall bear the expense of all measurements, analyses and reporting required by the Metropolitan Water Reclamation District. At such times as deemed necessary, the Metropolitan Water Reclamation District and the City reserve the right to take measurements and samples for analysis by an outside laboratory service.

C. All measurements, tests and analyses of the characteristics of water and wastes to which reference is made in this Article shall be determined in accordance with the latest edition of IEPA Division of Laboratories Manual of Laboratory Methods and shall be determined at the control manhole provided or upon suitable samples taken at said control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. Sampling shall be carried out by customarily accepted methods to reflect the effect of constituents upon the sewage works and to determine the existence of hazards to life, limb and property. The particular analysis involved will determine whether a twenty four (24) hour composite of all outfalls of a premises is appropriate or whether a grab sample or samples should be taken. Normally, but not always, BOD and suspended solids analyses are obtained from twenty four (24) hour

composites of all outfalls, where pH's are determined from periodic grab samples. (Ord. O-34-90, 6-18-90)

7-7B-5-7: SPECIAL AGREEMENTS:

No statement contained in this Section shall be construed as preventing any special agreement or arrangement between the Metropolitan Water Reclamation Division or the City and any industrial concern, whereby an industrial waste of unusual strength or character may be accepted by the Metropolitan Water Reclamation Division or City for treatment, subject to payment therefor, in accordance with Section 7-7B-6 of this Article, by the industrial concern; provided such payments are in accordance with Federal and State guidelines for user charge system. (Ord. O-34-90, 6-18-90)

7-7B-6: RATES AND CHARGES:

7-7B-6-1: BASIS FOR WASTEWATER SERVICE CHARGES; COMPUTATION:

The sanitary sewer charge for the use of and for service supplied by the wastewater facilities of the City shall consist of a basic user charge, a debt service charge, a capital improvement charge and applicable surcharges.

A. Basic User Charge: The basic user charge is levied on all users to recover the operation, maintenance and replacement (O, M & R) costs and shall be based on water usage as recorded by water meters or sewage meters. The basic user charge shall be computed as follows:

1. Estimate the annual sanitary sewer volume.

2. Estimate the projected annual revenue required to operate and maintain the sewer system, including a replacement fund for the year, for all works categories (O, M & R).

3. Proportion the estimated O, M & R costs to each user class by volume.

4. Compute costs per one thousand (1,000) gallons for normal domestic strength sewage.

B. Debt Service Charge: The debt service charge is computed by apportioning the annual debt service as a charge per one thousand (1,000) gallons.

C. Capital Improvement Charge: The capital improvement charge is levied on users to provide for capital improvements, extensions or reconstruction of the sewage treatment works. The capital improvement charge is computed by apportioning the annual amount to be accrued as a charge per one thousand (1,000) gallons.

D. Computation of Sanitary Sewer Service Charge: The sanitary sewer service charge shall be computed by the following formula:

CW = CC + CD + CM + (Vu-X)CU

Where CW = Amount of sanitary sewer service charge ($) per billing period.

CC = Capital improvement charge

CD = Debt service charge

CM = Minimum charge for operation, maintenance and replacement

Vu = Wastewater volume for the billing period.

X = Allowable consumption in gallons for the minimum charge

CU = Basic user charge for operation, maintenance and replacement.
(Ord. O-49-90, 8-20-90)

7-7B-6-2: MEASUREMENT OF FLOW:

The volume of flow used for computing basic user charges and surcharges shall be the metered water consumption read to the lowest even increment of tons of gallons.

A. If the person discharging wastes into the public sewers procures any part, or all, of his water from sources other than the public waterworks system, all or part of which is discharged into the public sewers, the person shall install and maintain, at his expense, water meters of a type approved by the metropolitan water reclamation district of greater Chicago (MWRDGC) for the purpose of determining the volume of water obtained from these other sources.

B. Devices for measuring the volume of waste discharged may be required by the MWRDGC or the city, as applicable, if these volumes cannot otherwise be determined from metered water consumption records.

C. Metering devices for determining the volume of waste shall be installed, owned and maintained by the person. Following approval and installation, such meters may not be removed, unless service is canceled, without the consent of the MWRDGC. (Ord. O-49-90, 8-20-1990)

7-7B-6-3: RATES AND CHARGES ESTABLISHED:

A. Basic User Charge: There is hereby established a basic monthly user charge of forty four cents ($0.44) per one thousand (1,000) gallons of metered water consumption to be applied to all users to recover OM&R costs.

B. Capital Improvement Charge: There is hereby established a monthly capital improvement charge of eleven cents ($0.11) per one thousand (1,000) gallons to each user of the sanitary sewer system. (Ord. O-33-2003, 12-15-2003)

C. Sanitary Sewer Service Charges:

1. Residential Users: A charge of four dollars thirty cents ($4.30) per month shall be applied to all residential users.

2. Nonresidential Users: A charge of seventy three cents ($0.73) per one thousand (1,000) gallons.

3. Nonresidential Users Over Fifty Million Gallons: A charge of forty three cents ($0.43) per one thousand (1,000) gallons.

D. Nonmetered Users: All nonmetered residential users of the wastewater facilities shall pay a flat rate charge of four dollars thirty cents ($4.30) per month. (Ord. O-20-2011, 11-7-2011)

In the event use of the sanitary sewer services is determined by the city to be in excess of twenty thousand (20,000) gallons per month, the city may require such flat rate user to install metering devices on the water supply and sewer main to measure the amount of service supplied. (Ord. O-33-2003, 12-15-2003)

E. Lift Station: In addition to all charges, any residential user serviced by a lift station shall pay an additional monthly charge of twenty two dollars ($22.00). (Ord. O-23-2013, 11-18-2013)

7-7B-6-4: REVIEW AND REVISION OF CHARGES; NOTICE:

The adequacy of the sanitary sewer service charge shall be reviewed, not less often than annually, by certified public accountants for the city in the annual audit report. The sanitary sewer service charge shall be revised periodically to reflect a change in local capital costs or OM&R costs.

The users of the sanitary sewer services will be notified annually, in conjunction with a regular bill, of the rate and that portion of the user charges which are attributable to the sanitary sewer operation, maintenance and replacement. (Ord. O-49-90, 8-20-1990)

7-7B-6-5: BILLS FOR SERVICE; DELINQUENCIES:

A. Rendering Bills: Bills for sewer service shall be sent out by the city finance department on the first day of the month succeeding the period for which the service is billed.

B. Payment Of Bills; Liability For Service: The rates or charges for services shall be payable monthly or bimonthly depending on the classifications of service for which bills are rendered. The owner of the premises, the occupant thereof and the user of the service shall be jointly and severally liable to pay for the service to such premises, and the service is furnished to the premises by the city only upon the condition that the owner of the premises, occupant and user of the services are jointly and severally liable therefor to the city.

C. Delinquencies:

1. Discontinuance Of Service: If the charges for such services are not paid within thirty (30) days after rendition of the bill for such services, such services shall be discontinued without further notice and shall not be reinstated until all claims are settled.

2. Liens; Notice And Foreclosure:

a. Whenever a bill for sewer service remains unpaid for sixty (60) days after it has been rendered, the city clerk is hereby authorized and directed to file with the county recorder of deeds a statement of lien claim. This statement shall contain the legal description of the premises served, the amount of the unpaid bill and a notice that the city claims a lien for this amount as well as for all charges subsequent to the period covered by the bill. If the user whose bill is unpaid is not the owner of the premises, and the city finance department has notice of this, notice shall be mailed to the owner of the premises, if his address be known, by the finance department whenever such bill remains unpaid for the period forty five (45) days after it has been rendered.

The failure of the City Clerk to record such lien or to mail such notice or the failure of the owner to receive such notice shall not affect the right to foreclose the lien for unpaid bills as mentioned herein.

b. Property subject to a lien for unpaid charges shall be sold for nonpayment of the same, and the proceeds of the sale shall be applied to pay the charges, after deducting costs, as is the case in the foreclosure of statutory liens. Such foreclosure shall be by bill-in-equity in the name of the City. The City Prosecutor is hereby authorized and directed to institute such proceedings in the name of the City in any court having jurisdiction over such matters against any property for which the bill has remained unpaid forty five (45) days after it has been rendered. (Ord. O-49-90, 8-20-90; amd. Ord. O-18-93, 6-7-93)

D. Final Payment Upon Transfer Of Property:

1. Receipt Of Payment Required: No single-family residence, multiple-family residence, apartment, business, commercial or industrial structure of building (hereinafter referred to as "property") shall be sold, leased, conveyed, assigned or transferred in any way, unless the owner, seller,

lessor, conveyor, assignor or transferor (hereinafter referred to as "transferor") obtains, from the City Finance Department, a stamped receipt of payment based upon a final water meter reading (hereinafter referred to as "receipt"). The receipt shall be presented to the Department of Public Services prior to issuance of a certificate of compliance or a conditional certificate of compliance.

2. Application For Final Meter Reading: A transferor shall apply to the City for a final water meter reading no later than seventy two (72) hours before the date of closing or transfer. (Ord. O-37-95, 8-7-95)

7-7B-6-6: DISPOSITION OF REVENUES:

All revenues and moneys derived from the operation of the sewerage system shall be deposited in the sewerage account of the Sewerage Fund. The City Treasurer shall receive all such revenues from the sewerage system and all other funds and moneys incident to the operation of such system as may be delivered to him and deposit the same in the account of the fund designated as the "Sewerage Fund of the City". The Treasurer shall administer such Fund in every respect in the manner provided by statute of the "Revised Cities and Villages Act", effective January 1942[4].

All such revenues and moneys shall be held by the City Treasurer separate and apart from his private funds and separate and apart from all other funds of the City, and all of said sum, without any deductions whatever, shall be delivered to the City Treasurer not more than ten (10) days after receipt of the same, or at such time be directed by the Mayor and City Council. (Ord. O-49-90, 8-20-90)

7-7B-6-7: BOOKS AND RECORDS; AUDIT:

A. Accounts Kept; Annual Audit: The City Finance Department shall establish a proper system of accounts and shall keep proper books, records and accounts in which complete and correct entries shall be made of all transactions relative to the sewerage system, and at regular annual intervals, he shall cause to be made an audit by an independent auditing concern of the books to show the receipts and disbursements of the sewerage system.

In addition to the customary operating statements, the annual audit report shall also reflect the revenues and operating expenses of the wastewater facilities, including a replacement cost, to indicate that sewer service charges under the waste cost recovery system do in fact meet these regulations. In this regard, the financial information to be shown in the audit report shall include the following:

1. Flow date showing total gallons received at the wastewater plant for the current fiscal year.

2. Billing data to show total number of gallons billed per fiscal year.

3. Debt service for the next succeeding fiscal year.

4. Number of users connected to the systems.

5. Number of nonmetered users.

A list of users discharging nondomestic and industrial wastes and volume of waste discharged.

B. Access To Records: The Illinois Environmental Protection Agency or its authorized representative shall have access to any books, documents, papers and records of the City which are applicable to the City system of user charges for the purpose of making audit, examination, excerpts and transcriptions thereof to insure compliance with the terms of special and general conditions to any State grant. (Ord. O-49-90, 8-20-90)

7-7B-6-8: EFFECTIVE DATE OF RATES AND CHARGES:

The rates and service charges established for user charges in this Section 7-7B-6 shall be effective as of the next fiscal year beginning May 1, 1991, and on bills to be rendered for the next succeeding month being June 1991 for monthly users and on bills to be rendered for the next succeeding bi-monthly period June 1991 for bi-monthly users. (Ord. O-49-90, 8-20-90)

7-7B-6-9: APPEALS:

The method for computation of rates and service charges established for user charges in this Section 7-7B-6 shall be made available for a user within ten (10) days of receipt of a written request for such. Any disagreement over the method used or in the computations thereof shall be remedied by the Budget Officer within thirty (30) days after notification of a formal written appeal outlining the discrepancies. (Ord. O-49-90, 8-20-90; 1992 Code)

7-7B-6-10: PENALTY:

Any person violating any provision of this Section 7-7B-6 shall be fined not less than fifty dollars ($50.00) nor more than five hundred dollars ($500.00) for each offense. (Ord. O-49-90, 8-20-90)

7-7B-7: PROTECTION FROM DAMAGE:

No unauthorized person shall maliciously, wilfully or negligently break, damage, destroy or tamper with any structure, appurtenance or equipment which is a part of the sewage works. Any person violating this provision shall be subject to immediate arrest under charge of disorderly conduct. (Ord. O-34-90, 6-18-90)

7-7B-8: POWERS AND AUTHORITY OF INSPECTORS:

A. The Metropolitan Water Reclamation District or the City and other duly authorized employees thereof, the Illinois Environmental Protection Agency and the U.S. Environmental Protection Agency, bearing proper credentials and identification, shall be permitted to enter all properties for the purposes of inspection, observation, measurement, sampling and testing in accordance with the provisions of this Article. The Metropolitan Water Reclamation District or the City or their representatives shall have the authority to inquire into any processes including metallurgical, chemical, oil refining, ceramic, paper or other industries beyond that point having a direct bearing on the kind and source of discharge to the sewers or waterway or facilities for waste treatment. (Ord. O-34-90, 6-18-90; 1992 Code)

B. While performing the necessary work on private properties referred to in subsection A of this Section, the Metropolitan Water Reclamation District or City or duly authorized employees thereof, the Illinois Environmental Protection Agency and the U.S. Environmental Protection Agency shall observe all safety rules applicable to the premises established by the company and the company shall be held harmless for injury or death to the aforementioned employees and shall indemnify the company against liability claims and demands for personal injury or property damage asserted against the company and growing out of the gauging and sampling operating, except as such may be caused by negligence or failure of the company to maintain conditions as required in subsection 7-7B-5-6B of this Article.

C. The Metropolitan Water Reclamation Division and City and other duly authorized employees thereof, bearing proper credentials and identification shall be permitted to enter all private properties through which the City holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair and maintenance of any portion of the sewage works lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement pertaining to the private property involved. (Ord. O-34-90, 6-18-90)

7-7B-9: VIOLATIONS AND PENALTIES:

A. Notice of Violation; Permit Revocations: Unless otherwise provided, any person found to be violating any provision of this Article, except Section 7-7B-7 shall be served by the City with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations. The City may revoke any permit for sewage disposal as a result of any violation of any provision of this Article.

B. Penalties: Any person who shall continue any violation beyond the time limit provided for in subsection A above shall be guilty of a misdemeanor and, on conviction thereof, shall be fined in

the amount not more than five hundred dollars ($500.00) for each violation. Each day in which any such violation shall continue shall be deemed a separate offense.

C. Liability of Violator: Any person violating any of the provisions of this Article shall become liable to the City by reasons of such violation. (Ord. O-34-90, 6-18-90; 1992 Code)

APPENDIX 25

Compliance Documentation – Construction Site Runoff Control

Chapter 2
STORM WATER DRAINAGE AND DETENTION

12-2-1: AUTHORITY:

This Chapter is enacted pursuant to the police powers granted to cities and villages by the Illinois Revised Statutes chapter 24, sections 11-12-5, 11-12-6, 11-12-12, 11-13-1, 11-14-1, 11-30-2, 11-30-8, 11-105-1, 11-109-1 and 11-110-11 and chapter 85, section 1711 and P.A.'s 85-905 and 1266. (Ord. 0-61-90, 11-10-90)

12-2-2: PURPOSE:

The purpose of this Chapter is to diminish threats to public health, safety and welfare caused by runoff of excessive storm water from new development and redevelopment. This excessive storm water could result in the inundation of damageable properties, the erosion and destabilization of downstream channels and the pollution of valuable stream and lake resources. The cause of increases in storm water runoff quantity and rate and impairment of quality is the development and improvement of land, and as such, this Chapter regulates these activities to prevent adverse impacts.

This Chapter is adopted to accomplish the following objectives:

A. To assure that new development does not increase the drainage or flood hazards to others or create unstable conditions susceptible to erosion;

B. To protect new buildings and major improvements to buildings from flood damage due to increased storm water runoff;

C. To protect human life and health from the hazards of increasedflooding on a watershed basis;

D. To lessen the burden on the taxpayer for flood-control projects, repairs to flood-damaged public facilities and utilities, correction of channel erosion problems and flood rescue and relief operations caused by increased storm water runoff quantities from new development;

E. To protect, conserve and promote the orderly development of land and water resources;

F. To preserve the natural hydrologic and hydraulic functions of watercourses and flood plains and to protect water quality and aquatic habitats;

G. To preserve the natural characteristics of stream corridors in order to moderate flood and storm water impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits and enhance community and economic development. (Ord. 0-61-90, 11-10-90)

12-2-3: APPLICATION OF PROVISIONS:

This Chapter shall apply to all development in the City. (Ord. 0-61-90, 11-10-90)

12-2-4: DEFINITIONS:

When used in this Chapter, the following words and terms shall have the meanings ascribed to them in this Section:

ADVERSE IMPACTS: Any deleterious impact on water resources or wetlands affecting their beneficial uses, including recreation, aesthetics, aquatic habitat, quality and quantity.

APPLICANT: Any person, firm or governmental agency who executes the necessary forms to procure official approval of a development or permit to carry out construction of a development from the City.

BASE FLOOD ELEVATION: The elevation at all locations delineating the level of flooding resulting from the 100-year frequency flood event.

BYPASS FLOWS: Storm water runoff from upstream properties tributary to a property's drainage system but not under its control.

CHANNEL: Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, flowage, slough, ditch, conduit, culvert, gully, ravine, wash or natural or man-made drainageway which has a definite bed and bank or shoreline in or into which surface or ground water flows, either perennially orintermittently.

CHANNEL MODIFICATION: Alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, riprapping (or other armoring), widening, deepening, straightening, relocating, lining and significant removal of bottom or woody rooted vegetation. Channel modification does not include the clearing of debris or removal of trash.

COMPENSATORY STORAGE: An artificially excavated, hydraulically equivalent volume of storage within the flood plain used to balance the loss of natural flood storage capacity when fill or structures are placed within the flood plain.

CONDUIT: Any channel, pipe, sewer or culvert used for the conveyance of movement of water, whether open or closed.

DETENTION BASIN: A facility constructed or modified to provide for the temporary storage of storm water runoff and the controlled release by gravity of this runoff at a prescribed rate during and after a flood or storm.

DETENTION TIME: The mean residence time of storm water in a detention basin.

DEVELOPMENT: Any manmade change to real estate, including:

A. Preparation of a plot of subdivision;

B. Construction, reconstruction or placement of a building or any addition to a building;

C. Installation of a manufactured home on a site, preparing a site for a manufactured home or installing a travel trailer on a site for more than one hundred eighty (180) days;

D. Construction of roads, bridges or similar projects;

E. Redevelopment of a site;

F. Filling, dredging, grading, clearing, excavating, paving or other nonagricultural alterations of the ground surface;

G. Storage of materials or deposit of solid or liquid waste;

H. Any other activity that might alter the magnitude, frequency, deviation, direction or velocity of storm water flows from a property.

DRAINAGE PLAN: A plan, including engineering drawings and supporting calculations, which describes the existing storm water drainage system and environmental features as well as the drainage system and environmental feature which are proposed after development of a property.

DRY BASIN: A detention basin designed to draw completely after temporary storage of storm water flows and to normally be dry over the majority of its bottom area.

EROSION: The general process whereby earth is removed by flowing water or wave action.

EXCESS STORM WATER RUNOFF: The volume and rate of flow of storm water discharged from an urbanized drainage area which is or will be in excess of that volume and rate which pertained before

urbanization.

FLOOD FRINGE: That portion of the flood plain outside of the regulatory floodway.

FLOOD PLAIN: That land adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation. The flood plain is also known as the special flood hazard area (SFHA)[1].

FLOODWAY: The channel and that portion of the flood plain adjacent to a stream or watercourse which is needed to store and convey the anticipated existing and future 100-year frequency flood discharge with no more than a one-tenth of one foot (0.1') increase in stage due to any loss of flood conveyance or storage and no more than a ten percent (10%) increase in velocities.

HYDROGRAPH: A graph showing, for a given location on a stream or conduit, the flow rate with respect to time.

INFILTRATION: The passage or movement of water into the soil surfaces.

MAJOR DRAINAGE SYSTEM: That portion of a drainage system needed to store and convey flows beyond the capacity of the minor drainage system.

MINOR DRAINAGE SYSTEM: That portion of a drainage system designed for the convenience of the public. It consists of street gutters, storm sewers, small open channels and swales and where manmade, is usually designed to handle the 10-year runoff event or less.

MITIGATION: Includes those measures necessary to minimize the negative effects which storm water drainage and development activities might have on the public health, safety and welfare. Examples of mitigation include compensatory storage, soil erosion and sedimentation control and channel restoration.

NATURAL: Conditions resulting from physical, chemical and biological processes without intervention by man.

100-YEAR EVENT: A rainfall, runoff or flood event having a one percent (1%) chance of occurring in any given year.

PEAK FLOW: The maximum rate of flow of water at a given point in a channel or conduit.

POSITIVE DRAINAGE: Provision for overland paths for all areas of a property, including depressional areas, that may also be drained by storm sewer.

PROPERTY: A parcel of real estate.

REGULATORY FLOODWAY: The channel, including on-stream lakes, and that portion of the flood plain adjacent to a stream or watercourse, as designated by the DWR, which is needed to store and convey the existing and anticipated future 100-year frequency flood discharge with no more than a one-tenth foot (0.1') increase in stage due to the loss of flood conveyance or storage and no more than a ten percent (10%) increase in velocities. The regulatory floodways are designated for Addison Creek on the following map number 17031C and panels 0366F, 0367F, 0368F, 0369F dated November 6, 2000, of the Countywide Flood Insurance Rate Map for Cook County prepared by FEMA and for Addison Creek on the Regulatory Flood Plain Map prepared by DWR[2]. When two (2) floodway maps exist for a waterway, the more restrictive floodway limit shall prevail. The regulatory floodways for those parts of unincorporated Cook County that are within extraterritorial jurisdiction of the City that

may be annexed into the City are designated for Addison Creek on the following map number 17031C and panel 0386F dated November 6, 2000, of the Countywide Flood Insurance Rate Map for Cook County prepared by DWR. When two (2) floodway maps exist for a waterway, the more restrictive floodway limit shall prevail. To locate the regulatory floodway boundary on any site, the designated floodway boundary should be scaled off the designated floodway map and located on a site plan, using reference marks common to both maps. Where interpretation is needed to determine the exact location of the designated floodway boundary, the DWR should be contacted for the interpretation.

RETENTION BASIN: A facility designed to completely retain a specified amount of storm water runoff without release except by means of evaporation, infiltration, emergency bypass or pumping.

SEDIMENTATION: The process that deposits soils, debris and other materials either on other ground surfaces or in bodies of water or storm water drainage systems.

STORM SEWER: A closed conduit for conveying collected storm water.

STORM WATER DRAINAGE SYSTEM: All means, natural or manmade, used for conducting storm water to, through or from a drainage area to the point of final outlet from a property. The storm water drainage system includes, but is not limited to, any of the following: conduits and appurtenance features, canals, channels, ditches, streams, culverts, streets, storm sewers, detentionbasins, swales and pumping stations.

STORM WATER RUNOFF: The waters derived from melting snow or rain falling within a tributary drainage basin which are in excess of the infiltration capacity of the soils of that basin, which flow over the surface of the ground or are collected in channels or conduits.

TIME OF CONCENTRATION: The elapsed time for storm water to flow from the most hydraulically remote point in a drainage basin to a particular point of interest in that watershed.

TRIBUTARY WATERSHED: All of the land surface area that contributes runoff to a given point.

2-YEAR EVENT: A runoff, rainfall or flood event having a fifty percent (50%) chance of occurring in any given year.

WET BASIN: A detention basin designed to maintain a permanent pool of water after the temporary storage of storm water runoff. (Ord. O-61-90, 11-10-1990; amd. Ord. O-25-2000, 8-21-2000)

12-2-5: DRAINAGE PLAN:

Each applicant shall submit the following information, depending on development size, to ensure that the provisions of this Chapter are met. The submittal shall include sufficient information to evaluate the environmental characteristics of the property, the potential adverse impacts of the development on water resources, both on-site and downstream, and the effectiveness of the proposed drainage plan in managing storm water runoff. The applicant shall certify on the drawings that all clearing, grading, drainage and construction shall be accomplished in strict conformance with the drainage plan. The following information shall be submitted for both existing and proposed property conditions. Properties smaller than ten (10) acres shall submit only the basic drainage plan called for in subsection A of this Section. Properties larger than ten (10) acres shall comply with the submittal requirements of both the basic drainage plan and the advanced drainage plan of subsection B of this Section.

A. Basic Drainage Plan:

1. Topographic Map: A topographic survey of the property at one foot (1') contours under existing and proposed conditions, and areas upstream and downstream, necessary to determine off-site impacts of the proposed drainage plan. The map shall be keyed to a consistent datum specified by the City.

2. Drainage System: Mapping and descriptions, where relevant, of existing and proposed drainage system features of the property and immediate vicinity, including:

   a. The banks and center line of streams and channels;

   b. Shoreline of lakes, ponds and detention basins;

   c. Farm drains and tiles;

   d. Sub-watershed boundaries within the property;

   e. Watershed soils classifications;

   f. The property's location within the larger watershed;

   g. Location, size and slope of storm water conduits and drainage swales;

   h. Sanitary or combined sewers;

   i. Depressional storage areas;

   j. Delineation of upstream and downstream drainage features and watersheds which might be affected by the development;

   k. Detention facilities;

   l. Roads and streets and associated storm water inlets;

   m. Base flood elevation and regulatory floodway where identified for the property; and

   n. Basis of design for the final drainage network components.

3. Environmental Features: A depiction of environmental features of the property and immediate vicinity, including the following:

   a. The limits of wetland areas;

   b. Any designated natural areas; and

   c. Any proposed environmental mitigation features.

B. Advanced Drainage Plan: The same information as required in subsection A of this Section is required for properties larger than ten (10) acres along with the following additional information for the minor drainage system's design runoff event and the 100-year runoff event of critical duration:

1. Elevations and maps of 100-year flooding;

2. Cross-section data for open channel flow paths and designated overland flow paths;

3. Direction of storm flows;

4. Flow rates and velocities at representative points in the drainage system; and (Ord. 0-61-90, 11-10-90)

5. A statement by the registered professional engineer of the drainage system's provisions for handling events greater than the100-year's runoff. (Ord. 0-61-90, 11-10-90; 1992 Code)

12-2-6: MINIMIZATION OF INCREASES IN RUNOFF VOLUMES AND RATES:

In the selection of a drainage plan for a development, the applicant shall evaluate and implement, where practicable, site design features which minimize the increase in runoff volumes and rates from the site. The applicant's drainage plan submittal shall include evaluations of site design features which are consistent with the following hierarchy:

A. Minimize impervious surfaces on the property, consistent with the needs of the project;

B. Attenuate flows by use of open vegetated swales and natural depressions and preserve existing natural stream channels;

C. Infiltrate runoff on-site;

D. Provide storm water retention structures;

E. Provide storm water detention structures; and

F. Construct storm sewers. (Ord. 0-61-90, 11-10-90)

12-2-7: WATER QUALITY AND MULTIPLE USES:

The drainage system should be designed to minimize adverse water quality impacts downstream and on the property itself. Detention basins shall incorporate design features to capture storm water runoff pollutants. Retention and infiltration of storm water shall be promoted throughout the property's

drainage system to reduce the volume of storm water runoff and to reduce the quantity of runoff pollutants. The drainage system should incorporate multiple uses where practicable. Uses considered compatible with storm water management include open space, aesthetics, aquatic habitat, recreation (boating, trails, playing fields), wetlands and water quality mitigation. The applicant should avoid using portions of the property exclusively for storm water management. (Ord. 0-61-90, 11-10-90)

12-2-8: DESIGN CRITERIA, STANDARDS AND METHODS:

A. Release Rates: The drainage system for a property shall be designed to control the peak rate of discharge from the property for the 2-year, 24-hour and 100-year, 24-hour events to levels which will not cause an increase in flooding or channel instability downstream when considered in aggregate with other developed properties and and downstream drainage capacities. The peak discharge from events less than or equal to the 2-year event shall not be greater than four one-hundredths (0.04) cfs per acre of property drained. The peak 100-year discharge shall not be greater than fifteen one-hundredths (0.15) cfs per acre ofproperty drained.

B. Detention Basins Generally:

1. Outlet Design:

a. Backwater on the outlet structure from the downstream drainage system shall be evaluated when designing the outlet.

b. Where a single pipe outlet or orifice plate is to be used to control discharge, it shall have a minimum diameter of four inches (4"). If this minimum orifice size permits release rates greater than those specified in this Section, and regional detention is not a practical alternative, alternative outlet designs shall be utilized which incorporate self-cleaning flow restrictors.

2. Detention Storage Requirements: The design maximum storage to be provided in a detention basin shall be based on the runoff from the 100-year, 24-hour event and reservoir (also called modified puls or level pool) routing or equal. Detention storage shall be computed using hydrograph methods as described in this Section.

3. Wet Detention Basin Design:

a. Purpose: Wet detention basins shall be designed to remove storm water pollutants, to be safe, to be aesthetically pleasing and, as much as feasible, to be available for recreational use.

b. Depths: Wet basins shall be at least three feet (3') deep, excluding nearshore banks and safety ledges. If fish habitat is to be provided, they shall be at least ten feet (10') deep over twenty five percent (25%) of the bottom area to prevent winter freeze-out.

c. Shoreline Slopes: The side slopes of wet basins at the normal pool elevation shall not be steeper than five to one (5:1) (horizontal to vertical).

d. Permanent Pool Volume: The permanent pool volume in a wet basin at normal depth shall be equal to the runoff volume from its watershed for the 2-year event.

e. Inlet and Outlet Orientation: To the extent feasible, the distance between detention inlets and outlets shall be maximized. If possible, they should be at opposite ends of the basin.

4. Dry Detention Basin Design:

a. Purpose: In addition to the other requirements of this Chapter, dry basins shall be designed to remove storm water pollutants, to be safe, to be aesthetically pleasing and, as much as feasible, to be available for multiple uses.

b. Drainage: Dry basins shall be designed so that eighty percent(80%) of their bottom area shall have standing water no longer than seventy two (72) hours for any runoff event less than the 100-year event. Underdrains directed to the outlet control shall be used if necessary to accomplish this requirement.

c. Velocity Dissipation: Velocity dissipation measures shall be incorporated into dry basin designs to minimize erosion at inlets and outlets and to minimize the resuspension of pollutants.

d. Inlet and Outlet Orientation: To the extent feasible, the distance between detention inlets and outlets shall be maximized. If possible, they should be at opposite ends of the basin.

C. Drainage System Design and Evaluation: The following criteria should be used in evaluating and designing the drainage system. The underlying objective is to provide capacity to pass the 10-year peak flow in the minor drainage system and an overload flow path for flows in excess of the design capacity.

1. Design Methodologies: Major and minor conveyance systems for areas up to ten (10) acres may be designed using the rational formula. The rational formula may also be used in sizing the minor drainage system for larger sites. Runoff hydrograph methods, as described in subsection D of this Section, must be used for major drainage system design for all systems with greater than ten (10) acres of drainage area and for the design of all detention basins.

2. Positive Drainage: Whenever practicable, all areas of the property must be provided an overland flow path that will pass the 100-year flow at a stage at least one foot (1') below the lowest foundation grade in the vicinity of the flow path. Overland flow paths designed to handle flows in excess of the minor drainage system capacity shall be provided. Drainage easements, street ponding and flow depths shall not exceed curb heights by more than one inch (1").

D. Methods for Generating Runoff Hydrographs: Runoff hydrographs shall be developed incorporating the following assumptions of rainfall amounts and antecedent moisture:

1. Rainfall: Unless a continuous simulation approach to drainage system hydrology is used, all design rainfall events shall be based on the Illinois State Water Survey's Bulletin 70. The first quartile point rainfall distribution shall be used for the design and analysis of conveyance systems with critical durations less than or equal to twelve (12) hours. The third quartile point rainfall distribution shall be used for the design and analysis of detention basins and conveyance system with critical durations greater than twelve (12) hours and less than or equal to twenty four (24) hours. The fourth quartile distribution shall be used in the design and analysis of systems with durations greater than twenty four (24) hours. The first, third and fourth quartile

distributions described by Huff are presented in Table 37 of Bulletin 70. The SCS Type II distribution may be used as an alternate to the Huff distributions.

2. Antecedent Moisture: Computations of runoff hydrographs which do not rely on a continuous accounting of antecedent moisture conditions shall assume a conservative wet antecedent moisture condition as a minimum.

E. Detention in Floodplains: The placement of detention basins within the floodplain is strongly discouraged because of questions about their reliable operation during flood events. However, the storm water detention requirements of this Chapter may be fulfilled by providing detention storage within flood fringe areas on the project site, provided the following provisions are met:

1. Detention in Flood Fringe Areas: The placement of a detention basin in a flood fringe area shall require compensatory storage for one and one-half (1.5) times the volume below the base flood elevation occupied by the detention basin, including any berms. The release from the detention storage provided shall still be controlled consistent with the requirements of this Section. The applicant shall demonstrate its operation for all streamflow and flood plain backwater conditions. Excavations for compensatory storage along watercourses shall be opposite or adjacent to the area occupied by detention. All flood plain storage lost below the 10-year flood elevation shall be replaced below the 10-year flood elevation. All flood plain storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation. All compensatory storage excavations shall be constructed to drain freely and openly to the watercourse.

2. Detention in Floodways: Detention basins shall be placed in the floodway only in accordance with subsection E3 of this Section.

3. On-Stream Detention: On-stream detention basins are discouraged but allowable if they provide regional public benefits and if they meet the other provisions of this Chapter with respect to water quality and control of the 2-year and 100-year, 24-hour events from the property. Further criteria are presented in Section 12-2-9 of this Chapter. If on-stream detention is used for watersheds larger than one square mile, it is recommended that the applicant use dynamic modeling to demonstrate that the design will not increase stage for any properties upstream or downstream of the property. Also, impoundment of the stream as part of on-stream detention:

a. Shall not prevent the migration of indigenous fish species which require access to upstream areas as part of their life cycle, such as for spawning;

b. Shall not cause or contribute to the degradation of water quality or stream aquatic habitat;

c. Shall include a design calling for gradual bank slopes, appropriate bank stabilization measures and a pre-sedimentation basin;

d. Shall not involve any stream channelization or the filling of wetlands;

e. Shall require the implementation of an effective nonpoint source management program throughout the upstream watershed;

f. Shall not occur downstream of a wastewater discharge; and

g. Shall comply with 92 Illinois Administrative Code Parts 702 and 708 and the Flood Plain Ordinance of the City.[3]

F. Drainage into Wetlands: Wetlands shall be protected from damaging modifications and adverse changes in runoff quality and quantity associated with land developments. In addition to the other requirements of this Chapter, the following requirements shall be met for all developments whose drainage flows into wetlands:

1. Detention in Wetlands: Existing wetlands shall not be modified for the purposes of storm water detention unless it is demonstrated that the existing wetland is low in quality and the proposed modifications will maintain or improve its habitat and ability to perform beneficial functions. Existing depressional storage in wetlands shall be maintained, and the volume of detention storage provided to meet the requirements of this Section shall be in addition to this existing storage.

2. Sediment Control: The existing wetland shall be protected during construction by appropriate soil erosion and sediment control measures and shall not be filled.

3. Alteration of Drainage Patterns: Site drainage patterns shall not be altered to substantially decrease or increase the existing area tributary to the wetland.

4. Detention/Sedimentation Basin: All runoff from the development shall be routed through a preliminary detention/sedimentation basin designed to capture the 2-year, 24-hour event and hold it for at least twenty four (24) hours before being discharged to the wetland. This basin shall be constructed before property grading begins. In addition, the drainage hierarchy defined in Section 12-2-6 of this Chapter should be followed to minimize runoff volumes and rates being discharged to the wetland.

5. Vegetated Buffer Strip: A buffer strip of at least twenty five feet (25') in width, preferably vegetated with native plant species, shall be maintained or restored around the periphery of the wetland.

G. Street, Parking Lot and Culvert Drainage:

1. Streets: If streets are to be used as part of the minor or major drainage system, ponding depths shall not exceed curbheights by more than one inch (1") and shall not remain flooded for more than eight (8) hours for any event less than or equal to the 100-year event.

2. Parking Lots: The maximum storm water ponding depth in any parking area shall not exceed six inches (6") for more than four (4) hours.

3. Culvert Road and Driveway Crossings: Sizing of culvert crossings shall consider entrance and exit losses as well as tailwater conditions on the culvert.

H. Infiltration Practices: To effectively reduce runoff volumes, infiltration practices, including basins, trenches and porous pavement, should be located on soils in hydrologic soil groups "A" or "B" as designated by the U.S. Soil Conservation Service. Infiltration basins and trenches designed to recharge ground water shall not be located within seventy five feet (75') of a water supply well or a building foundation. A sediment settling basin shall be provided to remove coarse sediment from storm water flows before they reach infiltration basins or trenches. Storm water shall not be allowed to stand more than seventy two (72) hours over eighty percent (80%) of a dry basin's

bottom area for the maximum design event to be ex-filtrated. The bottom of infiltration facilities shall be a minimum of four feet (4') above seasonably high ground water and bedrock.

I. Safety Considerations:

1. Generally: The drainage system components, especially all detention basins, shall be designed to protect the safety of any children or adults coming in contact with the system during runoff events.

2. Side Slopes: The side slopes of all detention basins at 100-year capacity shall be as level as practicable to prevent accidental falls into the basin and for stability and ease of maintenance. Side slopes of detention basins and open channels shall not be steeper than three to one (3:1) (horizontal to vertical).

3. Safety Ledge: All wet detention basins shall have a level safety ledge at least four feet (4') in width, two and one-half to three feet (2.5' - 3') below the normal water depth.

4. Velocity: Velocities throughout the surface drainage system shall be controlled to safe levels taking into consideration rates and depths of flow.

5. Overflow Structures: All storm water detention basins shall be provided with an overflow structure capable of safely passing excess flows at a stage at least one foot (1') below the lowest foundation grade in the vicinity of the detention basin. The design flow rate of the overflow structure shall be equivalent to the 100-year inflow rate.

J. Maintenance Consideration: The storm water drainage system shall be designed to minimize and facilitate maintenance. Turfed sideslopes shall be designed to allow lawnmowing equipment to easily negotiate them. Wet basins shall be provided with alternate outflows which can be used to completely drain the pool for sediment removal. (Pumping may be considered if drainage by gravity is not feasible.) Pre-sedimentation basins shall be included, where feasible, for localizing sediment deposition and removal. Access for heavy equipment shall be provided. (Ord. 0-61-90, 11-10-90)

12-2-9: ACCOMMODATING FLOWS FROM UPSTREAM TRIBUTARY AREAS:

A. Generally: Storm water runoff from areas tributary to the property shall be considered in the design of the property's drainage system. Whenever practicable, flows from upstream areas that are not to be detained should be routed around the basin being provided for the site being developed.

B. Upstream Areas Not Meeting Requirements of this Chapter:

1. When there are areas not meeting the storage and release rates of this Chapter, tributary to the applicant's property, regionalized detention on the applicant's property shall be explored by the applicant. The following steps shall be followed:

a. The applicant shall compute the storage volume needed for his property using the release rates of Section 12-2-7 of this Chapter, the applicant's property area and the procedures described in Section 12-2-8 of this Chapter.

b. Areas tributary to the applicant's property not meeting the storage and release rate requirements of this Chapter shall be identified.

c. Using the areas determined in subsection B1b above plus the applicant's property area, total storage needed for the combined properties shall be computed.

2. Allowable release rates shall be computed using the combined property areas. Storage shall be computed as described in Section 12-2-8 of this Chapter. If tributary areas are not developed, a reasonable fully developed land cover, based on local zoning, shall be assumed for the purpose of computing storage.

3. Once the necessary combined storage is computed, the City may choose to pay for oversizing the applicant's detention basin to accommodate the regional flows. The applicant's responsibility will be limited to the storage for his property as computed in subsection B1a above. If regional storage is selected by the City, then the design produced in subsection B1c above shall be implemented. If regional storage is rejected by the City, the applicant shall bypass all tributary area flows around the applicant's basin whenever practicable. If the applicant must route upstream flows through his basin and the upstream areasexceed one square mile in size, the applicant must meet the provisions of subsection 12-2-8E3 of this Chapter for on-stream basins.

C. Upstream Areas Meeting Requirements of this Chapter: When there are areas which meet the storage and release rate requirements of this Chapter, tributary to the applicant's property, the upstream flows shall be bypassed around the applicant's detention basin or be routed through the applicant's detention basin if this is the only practicable alternative. Storage needed for the applicant's property shall still be computed as described in subsection B1a of this Section. However, if the City decides to route tributary area flows through an applicant's basin, the final design storm water releases shall be based on the combined total of the applicant's property plus tributary areas. It must be shown that at no time will the runoff rate from the applicant's property exceed the allowable release rate for his/her property alone. (Ord. 0-61-90, 11-10-90)

12-2-10: EARLY COMPLETION OF DETENTION FACILITIES:

Where detention, retention or depressional storage areas are to be used as part of the drainage system for a property, they shall be constructed as the first element of the initial earthwork program. Any eroded sediment captured in these facilities shall be removed by the applicant before project completion in order to maintain the design volume of the facilities. (Ord. 0-61-90, 11-10-90)

12-2-11: FEE IN LIEU OF DETENTION:

All single-family residential developments under five (5) acres in size and all other development under one acre in size shall pay a fee of ten thousand dollars ($10,000.00) for each acre-foot of detention

which would be required under this Chapter rather than installing detention facilities on the property, unless specifically directed to do otherwise by the Director of Health and Inspectional Services. In instances where regional benefits and economies of scale can be achieved, it will be permissible for adjacent properties to utilize a common regional detention basin. Applicants shall have the option of paying a fee of their proportional cost of construction of detention required so that the City can build regional facilities, or they can jointly build the necessary facilities themselves. (Ord. 0-61-90, 11-10-90; 1992 Code)

12-2-12: MAINTENANCE RESPONSIBILITY:

Maintenance of storm water drainage facilities located on private property shall be the responsibility of the owner of that property. Before a storm water detention permit is obtained from the City, the applicant shall execute a maintenance agreement with the City guaranteeing that the applicant and all futureowners of the property will maintain its storm water drainage system. The maintenance agreement shall also specifically authorize representatives of the City to enter onto the property for the purpose of inspections and maintenance of the drainage system. Such agreement shall be recorded with the Recorder of Deeds of Cook County. The maintenance agreement shall include a schedule for regulate maintenance of each aspect of the property's storm water drainage system and shall provide for access to the system for inspection by authorized personnel of the City. The maintenance agreement shall also stipulate that if the Director of Health and Inspectional Services of the City or his authorized representative notifies the property owner, in writing, of maintenance problems which require correction, the property owner shall make such corrections within thirty (30) calendar days of such notification. If the corrections are not made within this time period, the City may have the necessary work completed and assess the cost to the property owner.

The City has the option of requiring a bond to be filed by the property owner for maintenance of the storm water drainage system. (Ord. 0-61-90, 11-10-90)

12-2-13: INSPECTIONS:

A. Inspections During Construction: General site grading shall not begin until the Director of Health and Inspectional Services has certified, in writing, to the applicant that any necessary detention facilities are in place and operational. The Director of Health and Inspectional Services or his representative will also conduct periodic inspections of the work in progress to be certain that the drainage system is being built as designed. If any violations of the provisions or requirements of this Chapter are noted during such inspections, the Director of Health and Inspectional Services shall notify the property owner, in writing, of the items needing correction. The property owner shall have ten (10) calendar days to make such corrections unless given a specific extension of time, in writing, by the Director of Health and Inspectional Services. Failure to complete such corrections within the specified time period shall constitute a violation of this Chapter.

B. Final Inspection: Upon notification by the applicant that the drainage system is completed, the Director of Health and Inspectional Services or his representative shall conduct a final inspection. If the drainage system is found to contain deficiencies which require correction, the Director of

Health and Inspectional Services or his representative shall notify the property owner of the necessary corrections. The property owner shall correct such deficiencies within ten (10) calendar days unless given a specific extension of time, in writing, by the Director of Health and Inspectional Services. Failure to make necessary corrections within the specified time period shall constitute a violation of this Chapter.

Upon finding that the drainage system meets the provisionsand requirements of this Chapter the Director of Health and Inspectional Services shall issue, in writing, a notice of drainage system completion to the property owner.

C. Routine Inspections: All privately owned drainage systems shall be inspected by representatives of the City not less often than once per year. A written report shall be filed of the results of any inspection and a copy sent to the property owner detailing any problems which need correction. (Ord. 0-61-90, 11-10-90)

12-2-14: ADMINISTRATION AND ENFORCEMENT:

The administration and enforcement of this Chapter shall be the responsibility of the Director of Health and Inspectional Services of the City or his representatives. (Ord. 0-61-90, 11-10-90)

12-2-15:APPEALS:

All appeals to the Director of Health and Inspectional Services decisions regarding the interpretation of this Chapter shall be heard by the City Council. (Ord. 0-61-90, 11-10-90; 1992 Code)

12-2-16: PENALTIES:

Any person convicted of violating any of the provisions or requirements of this Chapter shall be guilty of a misdemeanor and shall be subject to a fine of not more than five hundred dollars ($500.00). Each day the violation continues shall be considered a separate offense. (Ord. 0-61-90, 11-10-90)

ARTICLE 4: EROSION AND SEDIMENT CONTROL

Introduction

Controlling **erosion** and **sedimentation** during construction activities is critical in preventing negative impacts to water quality and local drainage systems. **Development** activities involving earth work, such as clearing, grubbing, grading, filling, and installing utilities, remove existing protective vegetative cover and expose soils to excessive **erosion**. The rate of **erosion** dramatically and unnaturally increases when soils are left unprotected during **development** or construction activities. Unprotected **sites** can erode at a rate in excess of one hundred times the natural rate of **erosion**. As shown in Figure 4.1, **sediment** can be carried from the project **site** in **stormwater runoff**, which results in the accumulation of **sediment** in **storm sewers**, **waterways**, **detention facilities** and other drainage features.

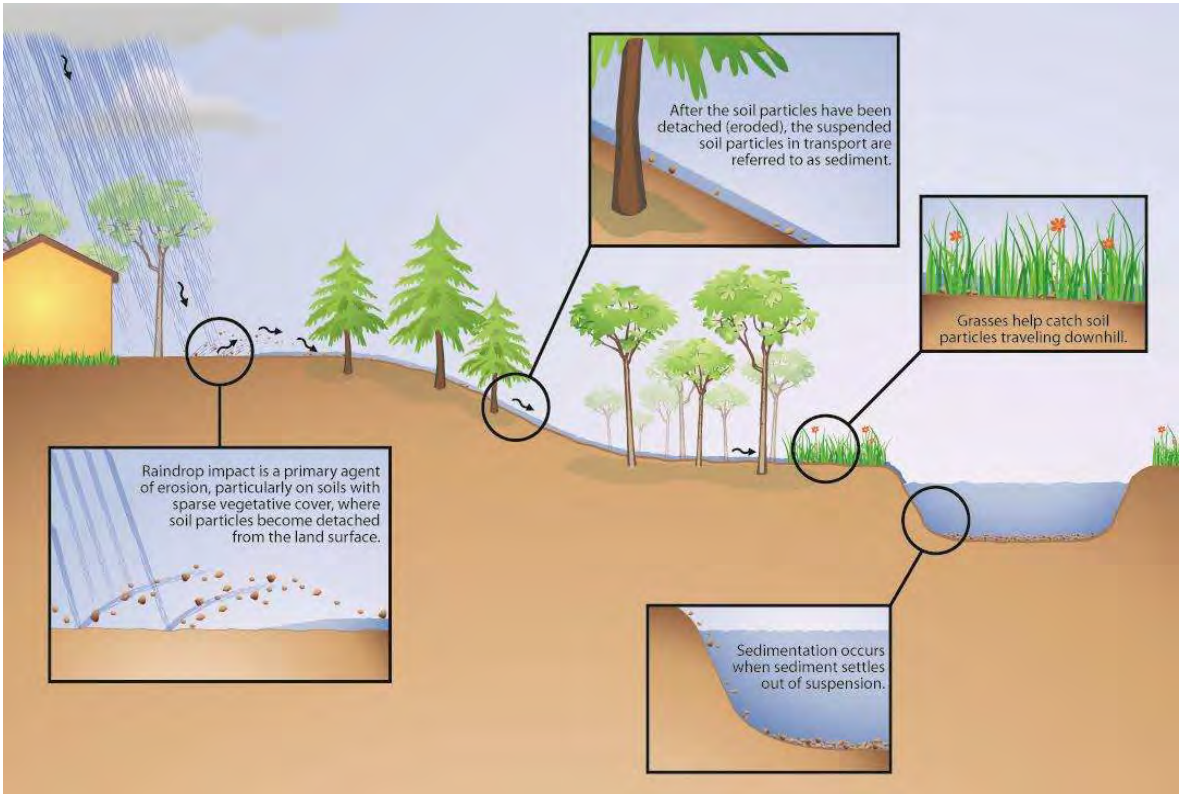

Figure 4.1 Erosion, Sediment, and Sedimentation

The accumulation of **sediment** reduces **stormwater** conveyance and the storage functions of streams, **wetlands**, **storm sewers, detention basins**, highway drainage ditches, **floodplains**, and navigable water channels. These impacts can result in more frequent and/or severe **flooding**. **Sedimentation** can also impact the storage capacity of municipal and industrial water supply reservoirs and increase costs due to the need to filter muddy water in preparation for domestic

Note: All bold terms contained in this document are defined terms in the WMO. Refer to Appendix A of the WMO or the TGM for the definition of each bold term.

or industrial use. It is also expensive to remove **sediment** from **storm sewers**, **detention facilities**, and other drainage systems. Excessive **sediment** in water bodies can be detrimental to aquatic life since it interferes with respiration, growth, reproduction, oxygen exchange and photosynthesis in plants.

Due to the many adverse environmental and economic impacts that result from **sedimentation**, the **Watershed Management Ordinance** (WMO) requires soil **erosion and sediment control practices** for all **development**. The purpose of these practices is to minimize and prevent pollution impacts during the construction phase of **development**. These practices are often referred to as Best Management Practices (BMPs). BMPs are measures that can be done on a small scale (individual **development sites**) that, in the aggregate, are designed to address the large scale objective of improving water quality throughout the **watershed**.

WMO Erosion and Sediment Control Requirements

The WMO requires all **developments**, regardless of size, to install and maintain soil **erosion** and **sediment** control measures during construction to prevent and/or reduce the **sediment** in **stormwater runoff** leaving the **site**. The **erosion** and **sediment** control requirements in the WMO are generally based on the general **National Pollutant Discharge Elimination System** (**NPDES**) Permit for **Stormwater** Discharges from Construction **Site** Activities (General **NPDES** Permit ILR-10). All **developments** that are equal to or greater than one acre in size must comply with the **Illinois Environmental Protection Agency** (**IEPA**) **NPDES** requirements for construction activities. For those **developments** located in a **combined sewer area**, if all **site stormwater** discharges, including construction dewatering, drain to a **combined sewer system**, ILR-10 permit coverage is <u>not</u> required.

The WMO requires **erosion and sediment control practices** on all **development sites**, regardless of the acreage of land disturbance or if it is located in a **combined** or **separate sewer area**. The WMO requires an **Erosion** and **Sediment** Control Plan to be prepared and submitted on all **development** projects requiring a **Watershed Management Permit** (§301.7). With every **Watershed Management Permit** application, a completed Schedule P form must be included with the submittal.

Although **erosion and sediment control practices** are required for every **development** regulated under the WMO, Schedule P is not required for certain types of **development**, including:

- Utility trenches not in **flood protection areas**;
- Projects undertaken solely by the **District**; and
- **Development** activities listed in WMO §201.1 that are undertaken solely by state or federal agencies (**IDOT**, Illinois Tollway Authority, **Corps**, etc.).

The WMO provides requirements for:

1. Temporary **erosion** control (§401);
2. Temporary **sediment** control (§402);
3. Construction **site** management (§403); and
4. Permanent **stabilization** (§404).

The **erosion and sediment control practices**, design criteria, and specifications in the WMO are generally based on the ***Illinois Urban Manual***. The ***Illinois Urban Manual***, which was originally developed by the US Department of Agriculture (USDA) – **Natural Resources Conservation Service** (**NRCS**), is considered to be the foremost resource for the selection and design of soil **erosion** and **sediment** control measures. When criteria and specifications are not provided in the ***Illinois Urban Manual***, the design criteria and specifications provided in the **TGM** shall be used (§400.6). In circumstances where other **erosion and sediment control practices** that are equally effective as those in the ***Illinois Urban Manual*** or those included in the **TGM** are to be used, prior written approval must be obtained from the **District** (§400.7).

A copy of the ***Illinois Urban Manual*** is available on-line through the Association of Illinois Soil and Water Conservation **District**s (AISWCD) website at: http://www.aiswcd.org/IUM/.

All standard drawings from the ***Illinois Urban Manual*** are available for download in pdf, dxf, dwf, and dwg file formats at: http://aiswcd.org/IUM/listdraw.html.

In addition, standard **erosion** and **sediment** control notes are available on-line through the **US Army Corps of Engineers** (**Corps**) website at:
http://www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/SESCrec.pdf

The WMO requires that for all **developments** discharging directly to **Jurisdictional Waters of the US**, the hydraulic and hydrologic design of the **erosion** and **sediment** control plan shall be designed for a **storm event** equal to or greater than a 25-year, 24-hour **storm event** (§400.4).

It should be understood that **development sites** have unique **stormwater runoff** situations and that the application of **erosion and sediment control practices** vary from **site** to **site**. Each type of **erosion and sediment control practice** has certain limitations based on the **drainage area** served, available land space, cost, and pollutant removal efficiency in addition to a variety of **site**-specific factors such as soil types, slopes, and depth of **groundwater** table. Careful consideration of these factors is necessary in order to select the appropriate **erosion and sediment control practice**. As stated in §400.3, all **developments** must address **erosion** and **sediment** control and the following:

1. Incorporate **erosion and sediment control practices** into the initial **site** plan;

2. Place a primary emphasis on **erosion control practices** that minimize **erosion**; and

3. Place a secondary emphasis on **sediment control practices** that contain eroded soil after it is in transport.

DEVELOPMENT OF AN EROSION AND SEDIMENT CONTROL PLAN

As part of the WMO submittal requirements, applicants need to develop an **erosion** and **sediment** control plan (§302.2). The ***Illinois Urban Manual***, Section 3, outlines a nine-step planning process recommended for the **development** of an **erosion** and **sediment** control plan and provides a list of pre-planning activities. At a minimum, **site erosion** and **sediment** controls and overall **site** management should conform to the following:

1. Control **stormwater** volume within the **site** to minimize soil **erosion**;

2. Control **stormwater** discharges, including both peak flowrates and total **stormwater** volume, to minimize **erosion** at outlets and to minimize downstream channel and stream bank **erosion**;

3. Minimize the amount of soil exposed during construction activity;

4. Minimize the disturbance of steep slopes;

5. Minimize **sediment** discharges from the **site**;

6. Address factors such as the amount, frequency, intensity, and duration of precipitation, the nature of resulting **stormwater runoff**, and soil characteristics, including the range of soil particle sizes expected to be present onsite;

7. Provide and maintain natural buffers around surface waters, direct **stormwater** to vegetated areas to increase **sediment** removal and maximize **stormwater** infiltration (unless infeasible); and

8. Minimize soil compaction and unless infeasible, preserve topsoil

For purposes of the WMO, an **erosion** and **sediment** control plan must describe all measures appropriate for the **development** such that all the requirements of Article 4 are met. In addition, the **erosion** and **sediment** control plan should put emphasis on avoiding sensitive areas and minimizing the amount and duration of soil exposed to **erosion** by wind, rain, **runoff** and vehicle tracking. Effective planning includes the **development** of a schedule for implementing appropriate **erosion control practices**, **sediment control practices**, and construction **site** management practices that control pollution generated from construction activities.

The plan sheet(s) require the associated details and staging construction plans, where

applicable. Some **sites** may require unique details to describe **site**-specific **erosion control practices** and **sediment control practices** and applications. Typically, a **site** grading plan will be utilized as the base for the **erosion** and **sediment** control plan sheet(s) as it is necessary to locate limits of **disturbed areas** and discharge points when designing the **erosion** and **sediment** control plan sheet(s).

The **erosion** and **sediment** control plan sheet(s) apply to all areas that are directly related to the project's construction activity, including but not limited to staging areas, storage yards, material borrow areas, storage areas, and access roads. The **erosion** and **sediment** control plan must provide controls for existing, interim, and proposed conditions. Also, the **erosion** and **sediment** control plan sheet(s) must ultimately reflect the contractor's phasing and/or construction staging, and must address the entire scope of the contract work.

Components of Erosion and Sediment Control Plan

As described in §302.2, the **erosion** and **sediment** control plan shall include the following:

1. "A narrative description of the existing land cover, hydrologic conditions of the proposed **development**, upstream **tributary area** and areas adjacent to the **development** including a description of any **Flood Protection Areas**, **site** discharge location(s), points of discharge to **Jurisdictional Waters of the U.S.**, and soil survey data." (§302.2A)

   This paragraph(s) narrative should include a discussion of the existing conditions of both the **development** and the areas adjacent to the **development** that can be impacted by **erosion** or **sedimentation**. Soil data for the county can be obtained on-line through the **NRCS** at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

   It is recognized that soil data may not be available for some areas of **Cook County**. If data is not available, then it should be noted in the narrative.

2. "The **NPDES** ILR-10 permit number issued by **Illinois Environmental Protection Agency** (**IEPA**) to the applicant upon submittal of the ILR-10 Notice of Intent permit application or permit." (§302.2B)

   After the application has been submitted and reviewed by **IEPA** for completeness, an identifying ILR-10 number is assigned to the permit application and the Notice of Intent (NOI) will be published to the NOI page(s) of **IEPA's** website. The NOI and identifying ILR-10 permit number should be noted on the Schedule P form.

3. "A narrative description of the proposed temporary **erosion and sediment control practices**, including a narrative describing how **Flood Protection Areas** will be protected from **erosion** and **sedimentation**." (§302.2C)

   This narrative should include a description of the temporary **erosion control practices**, the temporary **sediment control practices** selected for the **development**, and how

these practices will be used to protect **Flood Protection Areas**.

4. "A schedule of construction activities including, but not limited to, clearing and grading, installation of **stabilized** construction entrances, **erosion and sediment control practice** implementation, disposal of construction waste, stockpiling, and inspection and **maintenance** of all **erosion and sediment control practices**." (§302.2D)

   The schedule should allow adjustments in implementation of **erosion and sediment control practices** based on factors such as potential weather and the pace of work progress. The schedule should provide for the monitoring of weather forecasts for rainfall and adjust installation of **erosion and sediment control practices** prior to predicted rainfall events or dry-spells. The schedule should incorporate staged seeding and re-vegetation of graded slopes as work progresses.

   Apply permanent **erosion** control to areas deemed substantially complete during the project's defined seeding window. The schedule should include a monitoring program consisting of regular inspection of **erosion and sediment control practices** to ensure proper installation, **maintenance**, and performance of implemented **structures** and procedures. Objectives and **maintenance** schedules should be adjusted based on the results of monitoring and changes in construction plans.

5. "Data and calculations used to size, locate, design, and maintain all **erosion and sediment control practices**, and the design of temporary stream crossings." (§302.2F)

   All calculations, data, and assumptions used for the sizing and placement of **erosion and sediment control practices** should be included in the plan. This information should demonstrate how the proposed **erosion and sediment control practices** have been designed in compliance with the regulations in the WMO and/or **NPDES** ILR-10 permit.

6. "A mechanism for ensuring that the **erosion** and **sediment** control installation and **maintenance** requirements for both temporary and permanent measures will be met, including the list of **maintenance** tasks and performance schedules that have been identified and/or required in the plan sheet(s) and specifications." (§302.2G)

   In accordance with ILR-10, onsite inspections must be completed regularly and also after **storm events** that result in 0.5 inches or more rainfall. An assessment should be made on whether the onsite soil **erosion and sediment control practices** are performing properly, as compared to the specifications contained in the plans and/or ***Illinois Urban Manual***. Any **maintenance** that is required should also be identified as part of this process. Additional guidance on **maintenance** of soil **erosion** and **sediment** controls is provided in Article 9 of the **TGM**.

General NPDES Permit ILR-10 Requirements

The goal of General **NPDES** Permit ILR-10 is to protect the quality and beneficial uses of the State's surface water resources from polluted **stormwater runoff** and from non-**stormwater**

discharges associated with construction activities. To achieve this goal, the ILR-10 requires **permittees** to plan and implement appropriate pollution prevention and control practices for **stormwater runoff** and non-**stormwater** discharges throughout construction. These BMPs are aimed at reducing **erosion**, controlling **sediment** transport, implementing good housekeeping practices, and minimizing pollutant discharges. As stated previously in this article, for those **developments** located in a **combined sewer area**, if all **site stormwater** discharges, including construction dewatering, drain to a **combined sewer system**, ILR-10 permit coverage is not required.

A copy of General **NPDES** Permit ILR-10 is Available at:
http://www.epa.state.il.us/water/permits/storm-water/construction.html

Notice of Intent

To receive authorization under the ILR-10 Permit, a discharge must either be covered by a valid Illinois General **NPDES** Construction **Site** Permit, or a completed Notice of Intent (NOI) in accordance with Part II (NOI Requirements) and Part VI.G (Signatory Requirements) of the ILR-10 Permit. The NOI must be submitted in sufficient time to allow a 30 day review period after receipt of the NOI by **IEPA** and the **start of construction**. Dischargers who fail to notify the **IEPA** of their intent to be covered, and discharge **stormwater** associated with construction **site** activity to Waters of the State without an **NPDES** permit, are in violation of the Environmental Protection Act and the Clean Water Act.

Construction activities that are operating under approved local **sediment** and **erosion** control plans, land disturbance permits, grading plans, or **stormwater** management plans, shall also submit signed copies of the NOI to the local agency approving such plans in accordance with the deadlines set forth in Part II.A of the ILR-10 permit. A copy of the NOI shall be sent to the entity holding an active General **NPDES** Permit No. ILR-40 if the project is located in an area covered by an active ILR-40 permit.

Additional NOI guidance is available on-line through the **IEPA** at:
http://www.epa.state.il.us/water/permits/storm-water/construction.html

Storm Water Pollution Prevention Plan (SWPPP)

A SWPPP is required for **developments** that will result in the disturbance of one or more acres of total land area, or for a **development** less than one acre of total land that is part of a larger common plan of **development** or sale, if the larger common plan will ultimately disturb one or more acres of total land area. The SWPPP is an integral part of the **IEPA**'s ILR-10 permit program, and plays a crucial role in minimizing the pollution of **stormwater runoff** from construction **sites**. A properly prepared and implemented SWPPP assists permitees with meeting **stormwater** pollution prevention goals. The **erosion** and **sediment** control plan alone should not be considered a SWPPP, rather one component of the **site** specific SWPPP.

The US Environmental Protection Agency (EPA) has published a guide to developing SWPPPs for

construction **sites**. The guide is available on-line at:
http://www.epa.gov/npdes/pubs/sw_swppp_guide.pdf

An example SWPPP for a small (5-acre) construction **site** is available in pdf form on-line at: http://www.epa.gov/npdes/pubs/exampleswppp_smallcommercial.pdf.

An example SWPPP for a medium-sized (20-acre) construction **site** is available in pdf form on-line at: http://www.epa.gov/npdes/pubs/exampleswppp_residential.pdf.

Inspections

In accordance with the WMO (§1000.4), inspections must be performed to verify that the **development** is in compliance with the soil **erosion** and **sediment** control requirements of the WMO. An initial inspection of soil **erosion** and **sediment** control measures should occur after mobilization and installation of initial **erosion and sediment control practices**, prior to any soil disturbance (§1000.4A).

In accordance with ILR-10 regulations, inspections must be conducted at least once every seven calendar days and within 24 hours of the end of a storm, or by the end of the following business or work day, that is 0.5 inches or greater.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Inspections must commence when construction activities are conducted, if there is a 0.5 inches or greater rain event, or if discharge due to snowmelt occurs.

An assessment should be made and documented in a report on whether the soil **erosion and sediment control practices** are performing properly, as compared to the specifications contained in the plans and/or ***Illinois Urban Manual***. All remedial actions taken to repair or install soil **erosion** and **sediment** controls should be completed within 7 days of their discovery, unless the repair or installation is resulting in a pollutant discharge, in which the remedial action must occur immediately. For additional guidance on inspections, refer to Article 10 of the **TGM**.

TEMPORARY EROSION AND SEDIMENT CONTROL (§401 - §402)

Overview

Erosion and sediment control practices are techniques, measures or structural controls used for a given set of **site** conditions to manage the rate, quantity, and quality of **stormwater runoff** in a cost-effective manner. No single practice can address all pollutants associated with construction activities. Independently these practices serve different purposes. **Erosion** controls are preventative strategies that utilize techniques to stabilize the soil, thus minimizing the occurrence of **erosion**. **Sediment** controls are back up strategies that incorporate structural measures to contain **sediment** on **site** in the event that **erosion** does occur. While functionally different, these two forms of pollution control should be selected and implemented in a

complimentary manner in order to maximize pollution prevention effectiveness.

The selection process for temporary **erosion and sediment control practices** is an iterative process that first identifies potential pollutant sources and then identifies the measures necessary to reduce or eliminate pollutant discharges from the **site**. The nature and extent of the **erosion and sediment control practices** should be appropriate to address the specific conditions of the **site** and be properly maintained to ensure continued effective operation. For each aspect of construction, the placement of the necessary measures should be timed to optimize their effectiveness.

Temporary **erosion and sediment control practices** should reflect the features and limitations of the **development site** and adjacent properties. The following must be considered:

1. Seasonal, topographic, and **maintenance** limitations;
2. The susceptibility of soils to **erosion**;
3. Amount of tributary **drainage area**; and
4. Proximity to **Flood Protection Areas**.

Examples of seasonal, topographic, and **maintenance** limitations may include seeding windows, steep slopes, and accessibility. Available soil survey information and **site** investigation should be used to understand the potential susceptibility of **site erosion** of unprotected soils. Soil investigation should also include an understanding of infiltration capability, soil textural classes (percent sand, silt, and clay), as well as an understanding of the depth to seasonally high water table, bedrock, or other limiting layer. A description of these **site** soil features are required in the **development** of the volume control plan (§303), and can also facilitate the **development** of the temporary **erosion and sediment control practices**.

Avoiding Disturbance to Sensitive Areas

Construction schedules and planning should include all practicable measures to avoid disturbances to environmentally and culturally sensitive and regulated areas. Sensitive areas may include, but are not limited to, steep slopes, highly erodible soils, streams, stream buffers, specimen trees, and natural vegetation. Other sensitive areas include **Flood Protection Areas** (i.e., **floodplains**, **wetlands**, and **riparian environments**), threatened and endangered species habitat, historic preservation **sites**, and EPA 303(d) listed receiving waters. These areas provide numerous water quality and **flood** protection benefits and therefore require special management and protection in order to preserve their functions.

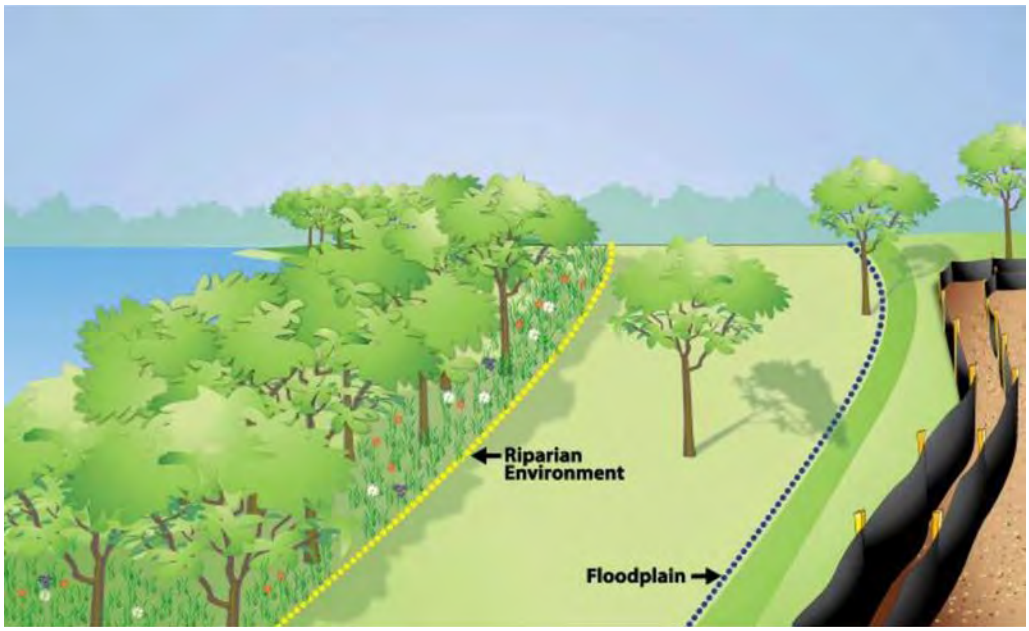

Figure 4.2 Example of a Double Row Silt Fence Protecting a Flood Protection Area

Flood Protection Areas

The WMO requires that soil stockpiles or other construction materials are not located within **Flood Protection Areas** (**FPAs**), and that they be protected by a minimum of a double-row **silt fence** or equivalent measure, as shown in Figure 4.2. Additional **erosion and sediment control practices** should be employed as necessary to protect **FPAs** from negative impacts associated with **development**. Stockpiles should never be placed within **FPAs** in order to prevent **sediment**-loading, impairment of ecological functions, and restriction of conveyance during **storm events**. The implementation of preventative measures prior to construction, such as the preservation of vegetated buffers, use of fencing and signage, and avoiding disturbances near **FPAs**, are some of the most effective means of protection.

Floodplains

Floodplains safely convey floodwaters and dissipate flows and velocities, subsequently reducing streambank **erosion** and protecting **structures** and people from the effects of **flooding**. Protection of **floodplain** corridors also promotes connectivity of habitat, which encourages the spread of native plants and wildlife.

Wetlands

Wetlands and **wetland buffers** are important **stormwater** management assets, where biogeochemical interactions cleanse surface and subsurface water of pollutants. Decreased flow velocities in **wetlands** allow **sediment** to settle out of suspension, and **wetland** vegetation provides the surface area and energy sources necessary for microorganisms to break down and immobilize pollutants. **Wetlands** also provide **stormwater** attenuation and volume reduction benefits by detaining surface waters, which alleviates **flooding**, promotes evapotranspiration, and allows recharge of **groundwater** aquifers. **Wetlands** can also offer protection from

erosion, sequester atmospheric carbon dioxide into organic soils, and provide plant and wildlife habitat.

Riparian Environments

Riparian environments provide ecosystem services in the form of streambank **stabilization**, interception and immobilization of **sediment**, sequestration of nutrients, metals, organic compounds, and other pollutants, and also enhancement of biodiversity in this transitional zone. **Riparian environments** also provide **stormwater** management benefits, since the vegetated and wooded areas adjacent to streams can reduce **flood** velocities and flowrates. These areas can also provide volume reduction benefits through infiltration in the vegetated areas.

TEMPORARY EROSION CONTROL REQUIREMENTS (§401)

Erosion control practices involve the **stabilization** of soil in order to alleviate raindrop impact, prevent sheet and rill **erosion**, prevent suspension of solids in **stormwater runoff**, and prevent dust due to wind **erosion**.

Temporary **erosion control practices** are **stabilization** measures including, but not limited to:

- Protection of existing vegetation;
- Establishment of new vegetation;
- Soil **stabilization** measures;
- Wind and dust control measures;
- **Stormwater** conveyance channels; and
- Velocity dissipation measures.

When selecting **erosion control practices**, it is important to consider both onsite and offsite conditions. All potential sources of **erosion** should be evaluated and optimal methods should be chosen based upon the combination of soil characteristics, topography, climate, existing resources, proposed construction activities, and proximity to **FPAs**. Preservation of existing vegetation should always be considered as a primary method of soil **stabilization**, due to present and future value for **erosion** protection, **sediment** control, wildlife habitat, landscape aesthetics, and economic value. Implementing preventative measures early in the project timeline can save cost and time during later phases by reducing the need for supplemental **stabilization** and **sediment** containment practices.

Erosion control practices should be removed as soon as practicable, but no longer than seven days after construction activities have temporarily or permanently ceased. As stated in the ILR-10 permit, this requirement may be waived if construction activity is scheduled to resume

within 14 days from when activities ceased.

A listing of ***Illinois Urban Manual*** drawings for recommended temporary **erosion** control measures is provided in Table 4-1.

Protection of Existing Vegetation and Site Soil Disturbance Activities

Vegetation can be an effective and economic method of soil **stabilization**. Vegetative cover protects soils from raindrop impacts, rill and sheet **erosion**, and wind **erosion**. Vegetation also provides a reduction in velocity, valuable filtration and adsorption of pollutants, and can reduce **runoff** volumes by enhancing infiltration. The WMO states that existing vegetation shall be preserved where practicable to minimize the area of soil disturbance (§401.1). The purpose of retaining existing vegetation is to temporarily preserve areas that have value for **erosion** control during the construction process.

Preservation of existing vegetation is also a simple way of maintaining **stabilized** soils in areas of the **site** where no construction activity is planned or will occur at a later stage, phase, or date.

In addition to preservation of existing vegetation, the following general guidelines relating to soil disturbing activities should also be followed:

1. Minimize the area of soil exposed to **erosion** at one time;

2. Schedule major grading operations for the non-rainy season when practicable and limiting soil disturbing activities during the rainy season; and

3. Sequence trenching activities so that most open portions are closed before new trenching begins. Also any trenches, holes, or other excavations required for utility installation should be protected at the end of each workday.

Establishment of New Vegetation

As stated above, vegetation can be an effective and economic method of soil **stabilization**. Similar to preservation of existing vegetation, establishing temporary or permanent vegetative cover on disturbed or exposed areas reduces **erosion** and creates a landscape that enhances soil permeability and the filtering of **runoff** pollutants.

Soil Stabilization

Soil **stabilization** measures are manufactured products that protect against raindrop impact and enhance vegetative establishment by retaining soil moisture, providing an insulating layer, preventing seed washout, controlling weedy species, and protecting seeds from wildlife consumption. These products include mulches, soil binders, **erosion** control blankets, and turf reinforcement mats, which provide effective and immediate **stabilization** of slopes and channels before, during, and after the establishment of vegetation.

Wind and Dust Control

The purpose of this practice is to prevent blowing and movement of dust from exposed soil surfaces, to reduce on and offsite damage, to minimize health hazards, and to improve traffic safety. This practice is applicable to areas subject to dust blowing and movement where on and offsite damage is likely without treatment.

Stormwater Conveyance Channels

Stormwater conveyance channels prevent **erosion** by redirecting potentially erosive flows or convey clean or **sediment** laden water from upstream **tributary areas** along a **stabilized** path and away from areas that have not yet been **stabilized**. These include diversion dikes, drainage swales, lined ditches, and slope drains. **Stormwater** conveyance channels are not suitable as **sediment**-trapping devices, and should be **stabilized** prior to use to prevent **erosion** of exposed soils.

Velocity Dissipation Measures

Velocity dissipation measures prevent **erosion** by slowing the velocity of concentrated flows at the **stormwater outfall**. These measures are to be employed wherever concentrated flows are conveyed at erosive velocities, such as in steep swales or at pipe outlets. These consist of an area or apron of rock, concrete rubble, or gabions placed at the outlet of a drainage system. Appropriate applications include, outlets carrying a continuous flow of water, outlets subject to short, intense flows, outlets to **sediment basins**, and points where lined channels discharge to unlined channels or natural **waterways**.

Erosion and Sediment Control for Construction Shutdown or Phased Projects

The WMO requires that temporary **erosion control practices** be maintained on a year-round basis during construction (§401.5). Temporary **erosion control practice** are required for any periods of construction shutdown until permanent **stabilization** is achieved (§401.5).

All open areas that are to remain idle throughout winter should be **stabilized** with temporary or permanent vegetation prior to the end of the fall growing season. Seeding should be performed during the appropriate season in order to ensure rapid establishment of vegetation. In the event that temporary or permanent re-vegetation cannot be established prior to winter shutdown, a backup **stabilization** and containment plan should be in place in order to implement additional **erosion** control measures, such as the installation of mulch or **erosion** control blankets on all exposed soil. **Sediment control practices**, such as perimeter **silt fence** and **storm sewer** inlet protection devices, should also be installed and maintained throughout the winter shutdown period.

Table 4-1. *Illinois Urban Manual* Drawings for Temporary Erosion Control Strategies

Temporary Erosion Control Strategy	*Illinois Urban Manual* Code
Protection of Existing Vegetation	
Tree and Forest Ecosystem Preservation	984
Establishment of New Vegetation	
Temporary Seeding	965
Permanent Vegetation	880
Sodding	925
Erosion Control Blanket	830
Mulching	875
Wind and Dust Control Measures	
Dust Control	825
Stormwater Conveyance Channels	
Diversion Dike	820
Temporary Diversion	955
Temporary Slope Drain	970
Temporary Swale	980
Temporary Pipe Diversion	676-PD
Velocity Dissipation Measures	
Rock Outlet Protection	910

For projects involving phased construction, within the portions of the **site** where construction activities will be temporarily ceased, **stabilization** practices must be completed within seven days unless construction activity is resumed on that portion of the **site** within 14 days (§401.6). The WMO allows for the instances where snow cover precludes the completion of the **stabilization** practices. In such cases, the **erosion control practices** must be completed as soon as practicable.

TEMPORARY SEDIMENT CONTROL REQUIREMENTS (§402)

Sediment-laden waters generated onsite should be routed through at least one **sediment control practice** prior to discharge (§402.3). These practices are designed to contain or filter **sediment**-laden **runoff** (eroded material) before it leaves the **site**. Most **sediment control practices** function by reducing flow velocity and turbulence of **sediment**-laden water, subsequently allowing **sediment** to settle out of suspension. In some instances, multiple **sediment control practices** will be necessary to protect against the discharge of suspended **sediment**. All **sediment control practices** should be installed in conjunction with **erosion control practices**, and therefore should not be utilized as stand-alone measures. A listing of

Illinois Urban Manual drawings for recommended temporary **sediment** control measures is provided in Table 4-2.

Sediment control practices must intercept all **runoff** from **disturbed areas** before **runoff** leaves the **site** (§402.5). When the **disturbed area** or areas constitute an area draining less than one acre, then the **disturbed area** must be protected by a minimum of a **silt fence** or equivalent. For a **silt fence** equivalent, refer to the following section, Perimeter Controls. Equivalent measures should be used only when approved by the **District**.

When the **disturbed area** or areas constitute an area draining more than one acre, then the **disturbed area** must be protected by a **silt fence** (or equivalent) and a **sediment basin** or equivalent. The **sediment basin** must be sized to intercept the 2-year, 24-hour **runoff** volume from the **tributary area**.

In all cases, it is important to consider measures that capture and contain **sediment** close to its source. **Sediment control practices** should always be integrated with **erosion control practices**, and should never be used as stand-alone methods of water quality protection.

Sediment control can be accomplished using the following general control mechanisms:

- Perimeter Controls: Vegetated buffers, **silt fences**, rolled barriers;
- Inlet Controls: Inlet filter bags, above grade inlet filters;
- Entrance/Exit Controls: **Stabilized** construction entrance/exit, tire wash stations;
- **Sedimentation** Controls: **Sediment** traps, **sediment basins**, flocculents;
- Instream **Sediment** Controls: Turbidity curtains, cofferdams; and/or
- Dewatering Operation Controls: Rim ditching, sock pipe/horizontal wells, well point systems, tank systems, and filtration.

Perimeter Controls

Perimeter controls are methods of containing **sediment** within the boundaries of the project **site**, or preventing offsite sources of **sediment** to enter the **site**. These practices prevent the discharge of **sediment** by filtering and dissipating the energy of **sediment** laden sheet flow **runoff**. All **site** characteristics should be considered when selecting appropriate perimeter control practices. Perimeter controls must be installed and functioning prior to soil disturbance (§402.3).

Inlet Controls

Inlet controls prevent the movement of **sediment** and other pollutants into the **storm sewer** network. All **site** and **storm sewer** characteristics should be considered when selecting an appropriate inlet control. Sheet flow draining to drop inlets may require different methods of

treatment than shallow concentrated flow draining to culvert inlets, so it is important to select an inlet control best suited to accommodate the expected velocity, shear stress, and **sediment** load of **site runoff**.

Entrance/Exit Controls

Entrance/Exit controls prevent offsite tracking of **sediment** at all points of construction ingress/egress where **sediment** can be tracked onto public roads. Any soil reaching a public or private roadway shall be removed immediately and transported to a controlled **sediment** disposal area.

Sedimentation Controls

Sedimentation controls utilize excavated or impounded areas to temporarily detain **sediment**-laden water to promote settling of suspended particles prior to discharge. The outlets of **sedimentation** controls should be **stabilized** (see Velocity Dissipation Measures) such that treated water does not become re-contaminated. Designs should allow for adequate retention time to ensure maximal **sedimentation** for the anticipated **sediment** loads. Pumping **sediment**-laden water into any **stormwater facility** that is not designated to be a **sediment** control measure, **sediment** trap, or **sediment basin** either directly or indirectly without filtration is prohibited.

Sediment traps should only be used for small disturbed soil areas draining less than one acre, and for treating coarse textured soils consisting of medium to large sized **sediment** particles (sands and coarse silts). If the contributing **drainage area** is greater than one acre, or **site** consists of finer textured soils, such as silts and clays, a **sediment basin** should be used. Basins are appropriate for large disturbed soil areas draining between one and ten acres, but are not appropriate for **drainage areas** greater than 75 acres.

Design of **sediment** traps and basins should provide enough storage to accommodate the settling process (live storage) in addition to the accumulated **sediment** (dead storage). Live storage volume should, at a minimum, accommodate the 2-year, 24-hour **runoff** volume for the **tributary area** to each **sediment** trap or basin. Dead storage should be sized to store the estimated **sediment** load generated from the **site** over the duration of the construction period and be below the permeable fill. The **sediment** load can be estimated by using the Revised Universal Soil Loss Equation (RUSLE). Total storage may consist of only live detention storage; however, a more frequent schedule for **sediment** removal will be required. The following example demonstrates how to calculate the 2-year, 24-hour **runoff** volume for an example **site**.

Example 4.1: Sediment Basin Sizing

This example demonstrates how to size a **sediment basin** for a 10-acre **site**. The WMO requires that the **sediment basin** be sized based on the 2-year, 24-hour **runoff** volume from the tributary **drainage area**. In this example, it is assumed that the entire project **site** (10 acres) is tributary to the **sediment basin**.

To calculate the **runoff** volume, the **NRCS runoff** equation is used, which is:

$$R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$$

where,

R = **runoff** depth (in)
P = 2-year, 24-hour rainfall depth of 3.04 in (**Bulletin 70** Northeast Section)
S = potential maximum retention after **runoff** begins (in), and is calculated by:

$$S = \frac{1000}{CN} - 10$$

where,

CN = **runoff** curve number for the **tributary area**. A CN of 91 is used, assuming newly graded (bare soil) and C soils.

$$S = \frac{1000}{CN} - 10 = \frac{1000}{91} - 10 = 0.99 \text{ in}$$

Substituting the known values for P and S,

$$R = \frac{(3.04 - 0.2*0.99)^2}{(3.04 + 0.8*0.99)} = 2.11 \text{ in}$$

The volume of **runoff** (acre-feet), V, from the **tributary area**, A, can then be calculated by:

$$V = \frac{R}{12} \times \text{Area} = \frac{2.11 \text{ in}}{12 \text{ in/ft}} \text{ X } 10 \text{ ac} = 1.76 \text{ ac-ft}$$

Therefore, the required **sediment basin** volume is 1.76 acre-feet.

Instream Sediment Controls

These are methods of **sediment** containment when work must occur in or near **waterways**. Instream **sediment** controls are implemented to contain and prevent **sediment** loading of surface waters and subsequently protect **watershed** quality. All necessary permits (USACE, **FEMA**, **IEPA**, Section 401 and Section 404 permits, etc.) must be granted before installation can begin. Examples of instream **sediment** controls include turbidity curtains and cofferdams.

Dewatering Operation Controls

Dewatering operations remove and treat **groundwater** from an excavation area. These controls ensure safe working conditions, proper removal of contaminants, and appropriate discharge of **groundwater**. Dewatering operations include Filtration Systems, Pipe Socks,

Horizontal Wells, Well Point Systems, and Dewatering Tanks. Construction dewatering operations shall be designed and operated so that water discharged from a **site** will meet State of Illinois water quality standards, as set forth in Title 35, Subtitle C, Chapter I, Part 302, Subpart B, Illinois Administrative Code.

Table 4-2. *Illinois Urban Manual* Drawings for Temporary Sediment Control Strategies

Temporary Sediment Control Measure	*Illinois Urban Manual* Code
Perimeter Controls	
Silt Fence	920
Filter Strip	835
Permanent Vegetation	880
Sodding	925
Temporary Seeding	965
Tree and Forest Ecosystem Preservation	984
Inlet Controls	
Culvert Inlet Protection	808
Inlet Protection - Fabric Drop	860
Inlet Protection - Excavated Drain Plan	555
Inlet Protection - Paved Areas Curb Protection	561C
Inlet Protection - Paved Areas Drop-In Protection	561D
Inlet Protection - Fabric Drop Plan	560
Inlet Protection - Sod Filter Plan	562
Sedimentation Controls	
Rock Check Dam - Riprap	605R
Rock Check Dam	905
Temporary Sediment Trap	660
Sediment Basin Dewatering Device	615
Polyacrylamide for Temporary Soil Stabilization	893
Polyacrylamide for Turbidity Reduction and Sediment Control	894
Sedimentation Controls	
Ditch Check (Manufactured)	514PC,514RC,514SC,514UF, 514VC
Instream Controls	
Floating Silt Curtain Cofferdam	617A, 617B, 917 803
Dewatering Operation Controls	
Dewatering	813
Portable Sediment Tank	895
Sump Pit	950

CONSTRUCTION SITE MANAGEMENT REQUIREMENTS (§403)

Construction **site** management practices are considered "good housekeeping" measures that are to be carried out throughout the duration of the project. These practices aim to reduce or eliminate the spread of pollutants by placing structural and/or procedural controls on activities that have the potential to pollute **stormwater runoff**. Emphasis is placed on preventing contact of **stormwater** with sources of pollutants. **Stabilized** construction entrances, proper management of soil stockpiles, and the proper installation of temporary stream crossings are all examples of construction **site** management controls. Good housekeeping can be accomplished using the following general control mechanisms:

- Material Handling and Waste Management: proper delivery, storage, and removal of construction materials and wastes;
- Spill Prevention and Control: **development** of a spill prevention and control plan;
- Equipment and Vehicle Use: designated fueling, cleaning, and **maintenance** areas;
- Street Sweeping and Vacuuming: timely removal of **sediment** tracked onto roadways;
- Allowable Non-**Stormwater** Discharge Management: prevention of contamination of these discharges from **stormwater**; and
- Stockpile Management: BMP implementation and proper location of piles.

One of the most useful tools for efficient construction **site** management is adequate signage. Legible signs should be placed throughout the construction **site** to identify vehicle wash and **maintenance** stations; designate solid, liquid, and hazardous waste storage locations; and convey any important notices concerning construction **site** management practices.

Temporary Stream Crossings

A temporary stream crossing is a culvert, ford, or bridge placed across a **waterway**, when frequent crossing cannot be avoided. Crossings are designed for short-term use (one year or less), allowing construction vehicles and heavy equipment to cross **waterways** while avoiding downstream **sedimentation** or damage to the channel morphology and ecosystem. All necessary permits (**Corps**, **FEMA**, **IEPA**, Section 401 and Section 404 permits, etc.) must be granted before installation can begin.

Temporary stream crossings should not cause **erosion** or damage due to increases in water surface profiles to adjacent properties. Disturbance or removal of vegetation should be limited to that which is necessary to complete construction, and when necessary, vegetation should be cut off no lower than ground level to promote re-growth. Riparian vegetation should be covered by a sufficient layer of clean river run cobble to prevent damage to underlying soil and root **structure**.

Temporary stream crossings used during construction should be designed to convey a two-year, 24-hour **flood** event without overtopping unless the **District** approves a more frequent design

event. In addition, the following conditions should be met:

- Temporary stream crossings should not reduce the carrying capacity of the channel;
- The entire crossing should be designed to withstand hydrodynamic, hydrostatic, and erosive forces up to the **base flood** event without washing out;
- Upon completion the temporary stream crossings should be entirely removed and the stream bed and banks restored to a stable non-erosive condition that incorporates native vegetation where appropriate; and
- **Erosion and sediment control practices** should be implemented and maintained during installation, **maintenance**, and removal of temporary stream crossings.

All **structures** should be inspected often, especially following **runoff**-producing rainfall, for any blockages in the channel and for **sediment** or debris buildup upstream or within the stream crossing **structure**.

A listing of ***Illinois Urban Manual*** Drawings for recommended construction **site** management controls is provided in Table 4-3.

Table 4-3. *Illinois Urban Manual* Drawings for Construction Site Management Strategies

Construction Site Management Strategy	*Illinois Urban Manual* Code
Stabilized Construction Entrance	930
Temporary Stream Crossing	975
Temporary Concrete Washout Facility	954

PERMANENT EROSION CONTROL REQUIREMENTS (§404)

Permanent **stabilization** means that all soil disturbing activities in an area of the **site** have been completed and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover has been established on all unpaved areas and areas not covered by permanent **structures**. Vegetative cover must have a density of 70 percent of the native background vegetative cover. A **disturbed area** may also be considered permanently **stabilized** if riprap, gabions, or other non-vegetative practices are installed.

In general, permanent **stabilization** using seeding often takes time (weeks or even months), especially during times of low rainfall or during the colder months of the year, so it is important to generate an appropriate timeline for permanent **stabilization** in order to prevent extended and costly **maintenance** of temporary **erosion and sediment control practices**.

Permanent **stabilization** must be initiated within seven days following the completion of soil disturbing activities. All temporary **erosion and sediment control practices** should be maintained until permanent **stabilization** is achieved and then removed within 30 days of **stabilization**.

By bringing areas of the **site** to permanent **stabilization**, the workload associated with maintaining and inspecting temporary **erosion and sediment control practices** will be reduced as routine inspections can be discontinued in that area. Table 4-4 provides the ***Illinois Urban Manual*** standard drawings for permanent vegetation.

Table 4-4. *Illinois Urban Manual* Drawings for Permanent Erosion Control Strategies

Permanent Erosion Control Strategy	*Illinois Urban Manual* Code
Permanent Vegetation	880, 880a, 880b, 880c, and 880d

TYPICAL EROSION AND SEDIMENT CONTROLS BY DEVELOPMENT TYPE

The acceptable **erosion and sediment control practices** will vary from project to project, however, certain types of projects will have many of the same practices in common. Examples of typical **erosion and sediment control practices** for different types of **development** are shown in Table 4-5 below.

Table 4-5. Typical Erosion and Sediment Control Practices by Development Type

Development Type	Typical Erosion and Sediment Control Practices
Commercial	• Stabilized Construction Entrance • Silt Fence • Seeding with Erosion Control Blanket • Sedimentation Basin • Concrete Washout Facility • Inlet Protection
Underground Utility Project (within FPA)	• Stabilized Construction Entrance • Double-row silt fence to protect FPA • Placement of soil stockpiles outside of FPA
Single-Family Development (within FPA)	• Stabilized Construction Entrance • Double-row silt fence to protect FPA • Inlet Protection • Sodding and/or Seeding with Erosion Control Blanket • Placement of soil stockpiles outside of FPA
Roadway/Alleyway Projects	• Stabilized Construction Entrance • Silt Fence • Concrete Washout Facility • Inlet Protection

It should be noted that the **erosion and sediment** controls shown in Table 4-5 are typical practices for those **development** types. These should be considered the minimum **erosion and sediment practices** that are required, and depending on the project, additional measures may be required to meet the requirements of Article 4 of the WMO.

SEDIMENT CONTROL PRACTICES FOR GREEN INFRASTRUCTURE

Because every **development** permitted under the WMO is required to incorporate **green infrastructure** into the **site** design, special **maintenance** practices should be developed (both during construction and post-construction) that ensure that the **green infrastructure** functions properly over time. Without proper **maintenance**, the void spaces in porous pavement and infiltration basins may become clogged with **sediment**, reducing their effectiveness.

During Construction

Green infrastructure is susceptible to failure during construction and therefore it is important that staging, construction practices, and **erosion and sediment control practices** all be considered during their installation. To protect the long-term functionality of volume control practices, the following measures should be addressed in the construction sequencing, general notes, and/or **soil erosion and sediment control** plan for a **development**:

- **Volume control practices** should be installed toward the end of the construction period.
- The contributing **drainage area** must be stabilized prior to the installation of the **volume control practice**.
- Soil compaction shall be minimized as much as possible during **site** grading. Appropriate measures (such as fencing) should be used to prevent heavy construction equipment traffic from accessing the area.
- **Volume control facilities** must be protected with a double-row of silt fence (or equivalent measure) during construction. The two layers of silt fence should be placed at least 5 feet apart and must follow the ***Illinois Urban Manual*** standards.
- In general, **volume control facilities** should not be used as temporary sediment traps during construction. For **sites** where this is not practicable, special construction notes and/or details are required to protect the functionality of the facility.

Post-Construction

To prevent clogging in the void space of pervious pavement (concrete, asphalt, pavers), it is recommended that adjacent landscaped areas be designed such that **stormwater runoff** from these areas onto the porous pavement is minimized. In addition, low pressure power washing and vacuuming of the surface is recommended on a yearly basis. This **maintenance** is especially critical during the fall. High pressure washing should be avoided for these types of surfaces, as it can cause damage to the pavement. Proper **maintenance** is especially difficult for pervious pavers, because extra care must be taken so that power washing and vacuuming does not dislodge the small chips that are used to fill in the paver gaps. In addition, small debris can collect in the paver gaps and lead to weed growth.

For infiltration trenches and basins, the use of a mulch layer above the infiltration practice will work like a filter for the **sediment** transported by **stormwater runoff**. The mulch layer will need to be replaced when it is filled, but will protect the void spaces in the soil and aggregate layers below from **sedimentation**. An alternative to using a mulch layer is the installation of a **sediment** trap upstream of the infiltration area. The **sediment** trap is a small depression that captures **stormwater** and allows the **sediment** to settle before it reaches the infiltration basin. For the **sediment** trap to be effective, the collected **sediment** must be removed regularly.

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APPENDIX 26

Compliance Documentation – Post-Construction Runoff Control

ARTICLE 9: MAINTENANCE

Introduction

The WMO was established to manage and mitigate the impacts of **development** and **stormwater** upon **flooding** and water quality. The management and mitigation of these impacts is completed through an approach of effecting change on a variety of levels: from promoting responsible land use; providing storage; minimizing **impervious areas**; protecting and enhancing **wetlands**, **floodplains**, buffers, and **riparian environments**; minimizing **erosion**; and providing **sediment** control (see §103 for a complete listing). Accomplishing these goals requires implementation of onsite **maintenance** and monitoring to ensure that the work is carried out effectively over the life of the project. Through effective **maintenance** and monitoring, and completion of remedial tasks to address issues that arise, the overall goals of the program and permitted projects can be met.

Many of the **maintenance** requirements specified in the WMO are already required by **National Pollutant Discharge Elimination System** (**NPDES**) General Permits. The **erosion** and **sediment** control requirements in the WMO are generally based on the General **NPDES** Permit for **Stormwater** Discharges from Construction **Site** Activities (General **NPDES** Permit ILR-10). In addition, many of the **maintenance** requirements for each community's **stormwater** management system are covered under the General **NPDES** Permit for **Stormwater** Discharges from Small Municipal Separate **Storm Sewer** Systems (MS4 Permit).

Under the WMO (§900.1), perpetual **maintenance** plans must be prepared and implemented for the following components of every **development**:

A. **Erosion and sediment control practices**;
B. **Stormwater detention facilities**;
C. **Stormwater** collection facilities including both **major** and **minor stormwater systems;**
D. Volume control facilities;
E. **Native planting conservation areas**;
F. **Qualified sewer construction** including service on grease basins, triple basins, and private pre-treatment facilities;
G. **Wetland mitigation**; and
H. **Riparian environment mitigation**.

For every development permitted under the WMO, the facilities described in A through H above must be listed on Schedule R. In addition, the location of these facilities must be shown on Exhibit R (Recording Exhibit) along with the applicable maintenance responsibilities and activities. Two copies of Schedule R and Exhibit R should be included with each submittal and four copies of each are due at approval. Exhibit R should be submitted separately from the plans as its own sheet (minimum exhibit size of 11" by 17").

Note: All bold terms contained in this document are defined terms in the WMO. Refer to Appendix A of the WMO or the TGM for the definition of each bold term.

Schedule R is not required for simple sewer connection permits that solely includes a straightforward service connection or private sewer extension to existing **development** (i.e. no new site development). In addition, any municipal owned properties/publicly funded permits do not require Schedule R. One exception to the above would be a permit that involves a **Sole Permittee** status (see **Sole Permitte** section in article 3 of the **TGM** for more information). If a Schedule R is not required for a publically funded school improvement project, for example, then all the appropriate **maintenance** schedules and notes must be included as part of the engineering utility or **maintenance** plan, with additional provisions for all proposed qualified sewers (if applicable) including pretreatment facilities. If a Schedule R is required for a permit, as in the case of a new volume control facility on private property, then all the qualified sewer **maintenance** including pretreatment facilities must also be included on Schedule R and Exhibit R (if applicable).

Table 9.1 lists those project types and the likely type of **maintenance** plan or native vegetation performance standards that may apply. In some cases, the **maintenance** may be a temporary measure during construction, but in most cases the **maintenance** will begin post-construction and will continue permanently with the **development**.

Table 9-1. Summary of Maintenance Plan Requirements

		Duration		Vegetative Performance Standards		Manufactured Device
		During Construction	Post Construction	Lawn, etc.	Native Plants	
A	Erosion and sediment control practices	X	X	-	-	-
B	Stormwater detention facilities	X	X	X	X	X
C	Stormwater collection facilities including both major and minor stormwater systems	X	X	X	X	X
D	Volume control facilities	-	X	X	X	X
E	Native planting conservation areas	X	X	X	X	X
F	Qualified Sewer Construction including service on grease basins, triple basins and private pre-treatment facilities	-	X	-	-	X
G	Wetland mitigation	X	X	-	X	X
H	Riparian environment mitigation	X	X	X	X	X

Plan Requirements and Guidance

The **maintenance** plan should describe inspection, **maintenance**, and monitoring activities that occur after the construction phase and continue, as applicable, into perpetuity. There are three key components to an effective **maintenance** plan:

1) A comprehensive list of all **maintenance** tasks that are to be performed for each system (A through H above) and the frequency of each task;

2) The responsible party for performing the **maintenance**; and

3) A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

Guidance for the **maintenance** of the systems listed in items A through H above is included below. Example perpetual maintenance plans and wetland mitigation maintenance and monitoring plans are included at the end of this article.

Erosion and Sediment Control Practices

All **developments** that are greater than or equal to one (1.0) acre in size must comply with the Illinois Environmental Protection (**IEPA**) **NPDES** requirements for construction activities (General **NPDES** Permit ILR-10). However, the WMO requires **erosion and sediment control practices** on all **development sites**, regardless of the area of land disturbance. For every **development**, a **maintenance** plan is required for all temporary and permanent **erosion and sediment control practices**.

The **maintenance** plan should be a schedule of implementation of the **erosion** and **sediment** control plan including, but not limited to:

A. A statement that installation of **erosion and sediment control practices** will occur prior to any soil disturbance;

B. A schedule for construction activities, including **stabilized** construction entrance installation, **sediment** trapping facility installation, **site** clearing, stockpiling, grading, construction waste disposal, temporary and permanent **stabilization**, and removal of temporary **erosion and sediment control practices**;

C. A schedule for inspection, reporting, and **maintenance** of all **erosion and sediment control practices**; and

D. Contact information for the party responsible for implementation and **maintenance** of the **site** soil **erosion** and **sediment** control plan.

Onsite inspections should be completed regularly and also after **storm events** that result in 0.5 inches or more rainfall. During these inspections, an assessment should be made on whether the onsite soil **erosion and sediment control practices** are performing properly, as compared to the specifications contained in the plans and/or ***Illinois Urban Manual***. Any **maintenance** that is required should also be identified and implemented immediately.

All **erosion and sediment control practices** should be monitored and maintained throughout the duration of construction in accordance with the requirements of §302 of the WMO and General **NPDES** Permit ILR-10. In some cases, perpetual **maintenance** and monitoring of projects, post-construction, is required to ensure the **erosion** and **sediment** control issues that may arise are quickly identified and rectified as necessary (see §310.2). However, in most cases monitoring of the **site** will cease once a Notice of Termination (NOT) has been submitted to

IEPA. All temporary **erosion and sediment control practices** should be maintained until permanent **stabilization** is achieved and then removed within 30 days of **stabilization**.

Maintenance and inspection provisions for erosion and sediment control practices during the construction phase should be provided on the plans in the form of general notes and maintenance/inspection schedules. Figures 9.1 and 9.2 provide examples of general notes for maintenance and inspections, and Figure 9.3 provides an example of an inspection and maintenance schedule.

GENERAL NOTES – MAINTENANCE

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT SHOULD BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATION CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENITIFED IN THIS PLAN AND STANDARD SPECIFICATIONS. ALL EROSION CONTROL MEASURES MUST BE MAINTAINED AND IMMEDIATELY REPLACED AS NEEDED AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INSPECTION, MAINTENANCE, AND REPAIR. THE CONTRACTOR SHALL INSPECT AND COMPLETE MAINTENANCE OF ALL ITEMS A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5-INCH RAINFALL. ALL TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, INCLUDING PERIMETER EROSION BARRIER, MUST BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETED.

STABILIZED CONSTRUCTION ENTRANCE: THE ENTRANCES SHOULD BE MAINTAINED TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC STREETS. MAINTENANCE INCLUDES TOP DRESSING WITH ADDITIONAL STONE AND REMOVING TOP LAYERS OF STONE AND SEDIMENT. THE SEDIMENT RUN-OFF INTO THE PUBLIC RIGHT-OF-WAY SHOULD BE REMOVED IMMEDIATELY.

RIPRAP OUTLET PROTECTION: RIPRAP SHOULD BE INSPECTED FOR ANY SCOUR BENEATH THE RIPRAP OR FOR STONES THAT HAVE BEEN DISLODGED. SEDIMENT ACCUMULATION IN THE OUTFALL AREA SHOULD BE REMOVED AS NEEDED.

CONCRETE WASHOUT AREA: EXISTING AREAS SHOULD BE CLEANED OUT, OR NEW FACILITIES SHOULD BE CONSTRUCTED AND OPERATIONAL ONCE THE EXISTING WASHOUT IS 75% FULL. WASHOUT SHOULD BE INSPECTED FREQUENTLY TO ENSURE THAT PLASTIC LININGS ARE INTACTS AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACITIVITIES. WHEN THE WASHOUT AREA IS ADJACENT TO A PAVED ROAD, THE PAVED ROAD SHOULD BE INSPECTED FOR ACCUMULATED CONCRETE WASTE. ANY ACCUMULATED CONCRETE WASTE ON THE ROAD, CURB, OR GUTTER SHOULD BE REMOVED AND PROPERLY DISPOSED.

EROSION CONTROL BLANKET: THE BLANKET AND STAPLES SHOULD BE INSPECTED FREQUENTLY AND SHALL BE INSTALLED TO THE ILLINOIS URBAN MANUAL, UNLESS OTHERWISE INSTRUCTED BY THE MANUFACTURER. EROSION OCCURRING UNDERNEATH THE BLANKET SHOULD BE BACK-FILLED AND SEEDED WITH THE APPROPRIATE SEED MIX. ADDITIONAL BMP'S MAY NEED TO BE INSTALLED TO REDUCE EROSION UNDER THE BLANKET.

SILT FENCE: SILT FENCES SHOULD BE INPSECTED REGULARLY FOR UNDERCUTTING WHERE THE FENCE MEETS THE GROUND, OVERTOPPING, AND TEARS ALONG THE LENGTH OF THE FENCE. DEFICIENCIES SHOULD BE REPAIRED IMMEDIATELY. REMOVE ACCUMULATED SEDIMENTS FROM THE FENCE BASE WHEN THE SEDIMENT REACHES ONE-HALF THE FENCE HEIGHT. DURING FINAL STABILIZATION, PROPERLY DISPOSE OF ANY SEDIMENT THAT HAS ACCUMULATED ON THE SILT FENCE. INSTANCES WHEN AREAS OF SILT FENCE CONTINUALLY FAIL, REPLACE SILT FENCE WITH ANOTHER BMP AS SEEN FIT.

CATCH BASIN AND INLET FILTERS: INLET FILTERS SHOULD BE INSPECTED FOR PROPER FILTERING, IF FILTER BAGS ARE USED, REMOVE SEDIMENT FROM THE FILTER BAGS WHEN 50% OF THE STORAGE VOLUME HAS BEEN FILLED, UNLESS OTHERWISE INSTRUCTED BY THE MANUFACTURER. REMOVE TRASH AND DEBRIS DURING INSPECTIONS. ACCUMULATED MATERIAL IN THE FILTERS SHOULD BE DISPOSED PROPERLY. DO NUT PUNCTURE HOLES IN FILTERS IF PONDING OCCURS.

THE CONTRACTOR OR CO-PERMITTEE WILL ASSUME MAINTENANCE OF FACILITIES FOR THE PROPOSED PROJECT ONCE CONSTRUCTION IS COMPLETE AND THE DISTURBED AREAS ARE STABILIZED.

Figure 9.1. Example General Notes for Maintenance of Erosion and Sediment Control Practices

GENERAL NOTES – INSPECTIONS

THE OWNER SHALL DESIGNATE A QUALIFIED PERSON TO BE RESPONSIBLE FOR SEDIMENT AND EROSION CONTROL OBSERVATION REPORTING. THIS QUAILIFIED PERSION SHALL MEET THE REQUIREMENTS NOTED IN THE ILR10 PERMIT CONDITIONS AND/OR THE WMO REGULATIONS. SITE OBSERVATIONS SHOULD OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. SITE OBSERVATION REPORTS SHOULD BE MAINTAINED ONSITE AS PART OF THE SWPPP.

EACH SITE OBSERVATION SHALL INCLUDE THE FOLLOWING COMPONENTS:

A. DISTURBED AREAS AND AREAS USED FOR THE STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE CHECKED FOR EVIDENCE OF, OR POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY HAVE BEEN INSTALLED AND ARE OPERATING CORRECTLY. WHERE DISCHARGE POINTS ARE ACCESSIBLE, THEY SHOULD BE CHECKED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHOULD BE CHECKED FOR OFF-SITE SEDIMENT TRACKING. ALL PUMPING OPERATIONS AND ALL OTHER POTENTIAL NON-STORM WATER DISCHARGES SHOULD BE OBSERVED.

B. BASED ON THE RESULTS OF THE SITE OBSERVATION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED, AND THE POLLUTION PREVENTION MEASURES DESCRIBED IN THIS PLAN SHALL BE REVISED AS APPROPRIATE, AS SOON AS PRACTICABLE AFTER THE OBSERVATION. THE MODIFICATIONS, IF ANY, SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITH 7 CALENDAR DAYS FOLLOWING THE SITE OBSERVATION.

C. A REPORT SUMMARIZING THE SCOPE OF THE OBSERVATION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE OBSERVATION, THE DATE(S) OF THE OBSERVATION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PARAGRAPH B ABOVE SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE OF FINAL STABILIZATION OR PERMIT COVERAGE IS TERMINATED. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS) OF THE ILR10 NPDES PERMIT.

D. THE OWNER SHALL NOTIFY THE APPROPRIATE AGENCY FIELD OPERTATIONS SECTION OFFICE BY EMAIL AT EPA.SWNONCOMP@ILLINOIS.GOV, TELEPHONE, OR FAX WITHIN 24 HOURS OF ANY INCIDENCE OF NONCOMPLIANCE FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING A SITE OBSERVATION, OR FOR VIOLATIONS OF ANY CONDITION OF THE PERMIT. THE OWNER SHALL COMPLETE AND SUBMIT WITHIN 5 DAYS OF INCIDENCE OF NONCOMPLIANCE (ION) REPORT FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING AN INSPECTION CONDUCTED. SUBMISSION SHALL BE ON FORMS PROVIDED BY THE AGENCY AND INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT, WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE.

E. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY AS DEFINED IN PART VI.G OF THE ILR10 NPDES PERMIT (SIGNATORY REQUIREMENTS).

F. ALL REPORTS OF NONCOMPLIANCE SHALL BE MAILED TO THE AGENCY AT THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
COMPLIANCE ASSURANCE SECTION
1021 NORTH GRAND AVENUE EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

Figure 9.2. Example General Notes for Inspection of Erosion and Sediment Control Practices

CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMNT
(*) VEGETATIVE SOIL COVER	TEMPORARY SEEDING	X	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	X	
	PERMANENT SEEDING	X	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		X
	DORMANT SEEDING		SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.	X	X
	SODDING		QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.	X	X
	PLANTS, TREES & SHRUBS		PROVIDES GROUND COVER, SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		X
NON VEGETATIVE SOIL COVER	MULCHING		ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X
	EROSION BLANKET	X	PROTECTS THE SOIL SURFACE FROM RAINDROP IMPACTS AND OVERLAND FLOW DURING THE ESTABLISHMENT OF VEGETATION. REDUCES SOIL MOISTURE LOSS DUE TO EVAPORATION.	X	X
	AGGREGATE COVER		PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.	X	X
	PAVING	X	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X
DIVERSIONS	RIDGE DIVERSION		TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.	X	X
	CHANNEL DIVERSION		TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.	X	X
	COMBINATION DIVERSION		TYPICALLY USED ANYWHERE ON A SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.	X	X
	CURB AND GUTTER		SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		X
	BENCHES		SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.	X	X
WATERWAYS	BARE CHANNEL	X	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.	X	
	STRUCTURAL STREAMBANK STABILIZATION		PROTECTS STREAMBANKS FROM EROSIVE FORCE OF FLOWING WATER		X
	VEGETATIVE CHANNEL		PROVIDES ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.	X	X
	VEGETATIVE STREAMBANK STABILIZATION		PROTECTS STREAMBANKS FROM THE EROSIVE FORCE OF FLOWING WATER AND PROVIDES NATURAL, PLEASING APPEARANCE		X
	LINED CHANNEL		USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X
ENCLOSED DRAINAGE	STORM SEWER	X	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		X
	UNDERDRAIN		USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.	X	X
SPILLWAYS	STRAIGHT PIPE SPILLWAY		USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER.		X
	DROP INLET PIPE SPILLWAY		SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		X
	WEIR SPILLWAY		USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.	X	X
	BOX INLET WEIR SPILLWAY		SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.	X	X
OUTLETS	LINED APRON		PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.	X	X
SEDIMENT BASINS	EMBANKMENT SEDIMENT BASIN		USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.	X	X
	EXCAVATED SEDIMENT BASIN		USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.	X	X
	COMBINATION SEDIMENT BASIN		USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.	X	X
SEDIMENT FILTERS	BARRIER FILTER		USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN ½ ACRE TO FILTER SEDIMENT FROM RUNOFF.	X	
	VEGETATIVE FILTER	X	USED ALONG DRAINAGEWAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.	X	X
	FILTER FABRIC	X	USED FOR ROADWAY CURB INLETS.	X	X
MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE	X	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.	X	X
	DUST AND TRAFFIC CONTROL		PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	X	X

(*) EROSION CONTROL BLANKET SHALL BE PLACED ON ALL DISTURBED AREAS WITHIN 15 DAYS AFTER FINAL GRADE IS REACHED.

INSPECTION AND MAINTENANCE SCHEDULE

ACTIVITY	RESPONSIBLE PARTY	DURATION
STABILIZATION DURING CONSTRUCTION MAINTENANCE	CONTRACTOR	DECEMBER 2005 TO JUNE 2006
STABILIZATION DURING CONSTRUCTION-OBSERVATION	ENGINEER	WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT
VEGETATION MAINTENANCE	CONTRACTOR	1 YEAR FROM COMPLETION
VEGETATION AND STABILIZATION MAINTENANCE	CONTRACTOR	ONGOING FROM CONSTRUCTION COMPLETION

SOIL PROTECTION SCHEDULE

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING	←	—	—	—	—	→						←→

PROPOSED SCHEDULE

Figure 9.3. Example Maintenance and Inspection Schedule for Erosion and Sediment Control Practices

Stormwater Detention Facilities

A scheduled perpetual **maintenance** plan is required for all **stormwater detention facilities**, and should include, at a minimum, the following items:

- Planned **maintenance** tasks and frequency of each task such as removal of **sediment**, debris, mowing and pruning of vegetation, and restoration of eroded areas;
- Identification of the responsible parties for performing the **maintenance** tasks; and
- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

Maintenance tasks for **stormwater detention facilities** should be performed monthly, at a minimum. The **maintenance** plan for **stormwater detention facilities** should include the following tasks:

- *Debris removal.* Trash, brush, grass clippings, **sediment**, and other debris should be removed from the **detention facility** to maintain the designed storage volume. To prevent clogging, the outlet control **structure** should also be inspected and all debris should be removed.
- *Restoration of eroded areas.* For areas where there is evidence of **erosion**, or in areas where future **erosion** is likely, protection should be provided to prevent further damage. All bare areas should be seeded and restored. Areas located along the side slopes of the **detention facility** will require seeding in conjunction with an **erosion** control blanket.
- *Vegetation control.* If used as a recreational area, the grassed areas of the **detention facility** should be mowed regularly to provide the intended use of the area. Grass clippings from mowing activities should always be collected. Mechanical methods for controlling weeds should be used instead of herbicides and pesticides. In addition, trees should not be allowed to grow along the emergency overflow weir and on any berms that are greater than four feet high. Vegetative control for **detention facilities** that serve as a **wetland** or wildlife habitat area should follow the guidance contained in the **wetland maintenance** plan.

Stormwater Collection Facilities

A perpetual **maintenance** plan for **stormwater facilities** is required. This includes the **major** and **minor** components of the **stormwater system** (other than the **detention facility**), such as **storm sewers**, catch basins, inlets, **outfalls** to **waterways**, and overland flow routes. A scheduled perpetual **maintenance** plan is required for all **stormwater** collection facilities, and should include, at a minimum, the following items:

- Planned **maintenance** tasks and frequency of each task such as removal of **sediment**, debris, mowing and pruning of vegetation, and restoration of eroded areas;

- Identification of the responsible parties for performing the **maintenance** tasks; and

- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

To ensure that **stormwater** collection facilities function as they were designed, regular inspections and **maintenance** of the system should be performed every two weeks. At a minimum, the following **maintenance activities** should be performed:

- *Debris removal.* Trash, wood chips, grass clippings, **sediment**, and other debris should be removed from the catch basins, inlets, **outfalls**, and **storm sewers** to prevent clogging. Cleaning should be done in such a way that the debris is not discharged back into the **stormwater** system.

- *Removal of obstructions.* Inspections should be performed to ensure that all overland flow routes are free from obstructions. If an obstruction has been placed in an overland flow route, it should be removed immediately.

- *Vegetation control.* For grassed swales that serve as overland flow routes, regular mowing should be performed to keep grass at an optimum height (less than six inches). Trees, bushes, and any other non-grass vegetation should be removed to preserve the conveyance capacity of the swale. Any areas of bare soil should be restored immediately using seeding with **erosion** control blanket.

<u>Volume Control Facilities</u>
A perpetual **maintenance** plan for volume control facilities is required. The written plan must include:

- Planned **maintenance** tasks and frequency of each task such as removal of **sediment**, debris, mowing and pruning of vegetation, and restoration of eroded areas;

- Identification of the responsible parties for performing the **maintenance** tasks; and

- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

Because every **development** permitted under the WMO is required to incorporate **green infrastructure** into the **site** design, special **maintenance** practices should be developed that ensure that the **green infrastructure** (both **volume control practices** and **flow-through practices**) functions properly over time. For **volume control practices**, monitoring wells are required for every 40,000 ft^2 of surface area. The monitoring wells should be utilized to determine the water level in the **volume control practice** and verify it is functioning properly.

Without proper **maintenance**, the void spaces in porous pavement and infiltration basins may become clogged with **sediment**, reducing their effectiveness. To prevent clogging in the void space of pervious pavement (concrete, asphalt, pavers), it is recommended that adjacent landscaped areas be designed such that **stormwater runoff** from these areas onto the porous pavement is minimized. In addition, low pressure power washing and vacuuming of the surface is recommended on a yearly basis. This **maintenance** is especially critical during the fall. High pressure washing should be avoided for these types of surfaces, as it can cause damage to the pavement. Proper **maintenance** is especially difficult for pervious pavers, because extra care must be taken so that power washing and vacuuming does not dislodge the small chips that are used to fill in the paver gaps. In addition, small debris can collect in the paver gaps and lead to weed growth.

For infiltration trenches and basins, the use of a mulch layer above the infiltration practice will work like a filter for the **sediment** transported by **stormwater runoff**. The mulch layer will need to be replaced when it is filled, but will protect the void spaces in the soil and aggregate layers below from **sedimentation**. An alternative to using a mulch layer is the installation of a **sediment** trap upstream of the infiltration area. The **sediment** trap is a small depression that captures **stormwater** and allows the **sediment** to settle before it reaches the infiltration basin. For the **sediment** trap to be effective, the collected **sediment** must be removed regularly.

For mechanical **flow-through practices**, such as an oil and grit separator, an effective **maintenance** plan is based on performing frequent inspections. The rate at which these devices collect pollutants will vary from **site** to **site**, and therefore frequent inspections (once per month) should be performed to ensure the system is functioning properly. The **maintenance** for these devices should be performed in accordance with the manufacturer's recommendations. As an example, the inspection and **maintenance** guide for the CDS system, which was developed by Contech Construction Products, Inc., is available on-line at:

http://www.conteches.com/products/stormwater-management/treatment/cds.aspx#1822141-technical-info

Qualified Sewer Construction

A perpetual **maintenance** plan is required for all **qualified sewer construction**. The written plan must include, at a minimum:

- Planned **maintenance** tasks and frequency of each task for the removal of objectionable wastes, fats, oils and grease, or any **other wastes** collected in private pre-treatment or separator **structures**;
- Planned routine **maintenance** for all private lift station and pumping facilities;
- Operation **maintenance** agreements for all private **service sewers** providing service to multiple **owners**;

- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

The **maintenance** for **sanitary sewer** systems should follow the guidance provided in document, Separate **Sanitary Sewer** Collection System Operation and **Maintenance** Manual for Local Agencies Tributary to the Metropolitan Sanitary **District** of Greater Chicago. This operation and **maintenance** guide was developed by Metcalf and Eddy, Inc. in 1989 on behalf of the **District** and is available on-line through the **District's** web**s**ite at:

https://www.mwrd.org/irj/portal/anonymous/Infiltration

Private pre-treatment and separator **structures** that collect objectionable wastes, fats, oils and grease, or any other undesirable waste should be inspected and, if necessary, maintained every two weeks. **Maintenance** of these **structures** is usually performed by permitted haulers or recyclers, and consists of removing the material and then disposing of the material in accordance with local, State, and Federal laws.

To prevent stoppages in gravity sewers, sewer cleaning should be performed on a preventative basis. A regular cleaning schedule for sewers should be developed such that 100% of the pipes are cleaned annually. Some pipe sections may be prone to stoppages and may require more frequent cleaning, such as every month. Other pipe sections may not be susceptible to stoppages and therefore can be cleaned annually. The cleaning schedule should be customized based on information obtained during regular inspections of the system. When cleaning the sewer system, there are both hydraulic cleaning methods and mechanical cleaning methods available. Hydraulic methods utilize high-velocity water to clean the bottoms and walls of the pipes, whereas mechanical methods use equipment to physically remove the material from the bottoms and walls of the pipes.

Planned routine **maintenance** for all private lift station and pumping facilities should be based on the manufacturer's recommendations. The schedule of **maintenance activities** can be supplemented by information obtained during the regular inspections of the equipment. At a minimum, the **maintenance activities** and frequency should meet the manufacturer's recommendations.

Wetland Mitigation and Native Planting Conservation Areas

Maintenance plans must be prepared for **wetland mitigation** and **native planting conservation areas**. The plans shall cover the short term and long term (perpetual) **maintenance**. The short term plans will have set time frames based on the following examples. Actual timeframes will vary based on the complexity or difficulty of the project. The timeframes set a project length of the program; however, failure to meet the performance standards listed in the plan can extend the period until the project is approved. Long term plans are perpetual and intended to maintain the level of quality achieved during the short term period.

Short Term **Maintenance** Plan Example Timeframes:

- Temporary Impact Minimal Restoration, e.g. utility line installation - 1 year
- Enhancement/restoration of an existing area (more than minimal) - 3 years
- **Wetland Mitigation** - 5 years

The contents of the Short Term Plan are as follows:

- Proposed **wetland hydrology** and an inundation and duration analysis;
- Proposed soils and soil management activities;
- Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
- Proposed **maintenance** and monitoring plan with **maintenance activities** and performance criteria outlined;
- Schedule of earthwork, planting, monitoring, and **maintenance**; and
- A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to and accepted by a governmental entity.

The contents of the Long Term Plan are as follows:

- A plan for the continued management, operation, and **maintenance** of the **wetland mitigation** measures including the designation of funding sources and the **person** responsible for long-term operation and **maintenance**.

<u>Riparian Environment Mitigation</u>

Maintenance plans must be prepared for **riparian environments**. The plans shall cover the short term and long term (perpetual) **maintenance**. The short term plans will have set time frames based on the following examples. Actual timeframes will vary based on the complexity or difficulty of the project. The timeframes set a project length of the program; however failure to meet the performance standards listed in the plan can extend the period until the project is approved. Long Term plans are perpetual and intended to maintain the level of quality achieved during the short term period.

Short Term **Maintenance** Plan Example Timeframes:

- Temporary Impact Minimal Restoration, e.g. utility line installation - 1 year
- Mitigation/Enhancement/Restoration of an existing **riparian environment** - 3 years

The contents of the **Riparian** Short Term Plan are as follows:

- Proposed **wetland hydrology** and an inundation and duration analysis;
- Proposed soils and soil management activities;
- Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
- Proposed **maintenance** and monitoring plan with **maintenance activities** and performance criteria outlined;
- Schedule of earthwork, planting, monitoring, and **maintenance**;

- A plan for the continued management, operation, and **maintenance** of the **wetland mitigation** measures including the designation of funding sources and the **person** responsible for long-term operation and **maintenance**.

As applicable, the following shall also be included in the **maintenance** plan discussion.

- A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to and accepted by a governmental entity;
- The proposed naturalizing methods, such as meandering, pools, or riffles for relocated channels. Methods proposed are expected to be able to withstand all events up to the **base flood** without increased **erosion**;
- The methods by which the normal flow within the channel will be diverted to construct the new or relocated channel;
- The **erosion and sediment control practices** to be implemented;
- The appropriate hydrologic and hydraulic methods analyzing the impacts on **flood** flows and **flood** elevations (to be provided in the **floodplain** and **floodway** submittal) meeting all other requirements in the **Ordinance**, including the **floodplain** and **floodway** requirements outlined in §601 and §602 of the **Ordinance**;
- Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
- Scheduling of earthwork, planting, **maintenance**, and monitoring; and
- A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to, and accepted by, a governmental entity.

Wetland, Buffer, Riparian, and Native Planted Areas Maintenance & Monitoring Plan Format

The WMO describes within §310 (**Maintenance** and Monitoring Plan Submittal) the required contents of the submittals for each of the **site** elements listed above. However, the WMO does not provide any specific guidance or criteria regarding performance standards or format of the document. Recommendations regarding the type of **maintenance** and monitoring plan to prepare and recommended performance standards regarding certain project elements are described below.

It is recommended that **maintenance** and monitoring plans be prepared following Adaptive Management Principles. **Maintenance** and monitoring plans will be tailored to suit the needs of each **development**. Applicants will be required to determine the applicability of each element and complete the required **maintenance** and monitoring in accordance with the approved plan.

Adaptive Management is a **structured** approach for addressing uncertainties by adjusting implementation, as necessary, to improve the probability of success. Adaptive management is seen as an evolving process involving learning (the accumulation of understanding over time) and adaptation (the adjustment of management over time). The sequential cycle of learning and adaptation leads naturally to two beneficial consequences:

1. Better understanding of the resource system being managed, and

2. Better management based on that understanding.

Adaptive Management Goals and Objectives

Plans are designed to be adaptive to changing **site** conditions observed through periodic monitoring of the **site**. The monitoring visits are important to determine the annual tasks needed. Those tasks are then completed and evaluated for effectiveness. New tasks are then defined as necessary to achieve the project goals and objectives.

Plan:

- Identify management issues (e.g. weed infestations)
- Identify management goals (e.g. weeds managed, native seeding);
- Determine management strategies available (e.g. herbicide, hand pulling, burning);
- Select appropriate management action (e.g. hand removal);
- Determine what will be monitored and how (e.g. establish a fixed point in field); and
- Determine how change and success will be evaluated (e.g. absence of weeds one month or one year after removal).

Do:

- Carry out action (e.g. remove weeds, complete prescribed burn).

Monitor:

- Monitor results (e.g. revisit **site** to determine success of activities).

Review:

- Assess previous management strategy and modify plan as necessary to adapt to current **site** conditions; and
- Return to Planning – begin again, adapt to new **site** conditions.

Recommended Native Seeding Planting Performance Standards

For **wetland**, **riparian**, buffer, and **stormwater** areas proposed to contain native seeding or planting, the following minimum performance standards shall apply. Applicants may offer alternative standards for unique situations.

1. For projects which have or will receive a permit from the **US Army Corps of Engineers** (**Corps**), applicants should follow the most current version of the ***Chicago District Permittee Responsible Mitigation Requirements*** to the mitigation areas for **wetland**, buffer, and **riparian environments**. The guide is available on-line through the **Corps** website at:

http://www.lrc.usace.army.mil/Missions/Regulatory/MitigationRequirements.aspx

2. For projects that do not have to receive a **Corps** permit, applicants should at a minimum achieve the following standard:

   - At least 80% of the vegetation present within the planted **wetland** and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated areas that are not undergoing restoration or are lawn.

Maintenance Plan Implementation

As specified in the WMO (§900.4), **maintenance** is the responsibility of the **co-permittee** and **permittee** of the **development**. The **maintenance** responsibility may be delegated to an entity that is acceptable to the **permittee**, however, ultimate responsibility for the **maintenance** of the facilities lies with the **permittee**.

Maintenance plans may be modified if **site** conditions change or issues arise, however, the **District** or **authorized municipality** has discretion as to whether or not to accept the requested modification.

EXAMPLE MAINTENANCE PLAN FOR EXHIBIT R (RECORDING EXHIBIT)

The Owner of the XYZ Development, with facilities as shown on Exhibit R, shall assume responsibility for the following perpetual maintenance activities:

1. General

Regular inspections and routine maintenance of general areas shall be performed on a monthly or as-needed basis. Specific items of concern include:

____ Litter and debris shall be controlled
____ Landscaped areas shall be maintained with regular mowing and restored with appropriate seeding/vegetation as necessary
____ Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations
____ Riprap areas shall be repaired with the addition of new riprap, as necessary, of similar size and shape
____ Roads shall be swept, vacuumed and/or washed on a regular basis

2. Stormwater Management Facilities

All components of the stormwater management facilities shall be checked monthly between March and November and maintained as necessary to ensure proper performance. It is critical that all inflows and outflows to the detention facility are clean and performing as designed. In addition, the design volume of the detention facility shall also be maintained. Inspections for the following specific items should be conducted monthly between March and November:

Side Slopes/Embankment/Emergency Overflow Structure

____ Inspect embankments for settlement and erosion
____ Remove woody growth from the embankment
____ Any breaks, hire Registered Professional Engineer for design resolution
____ Seed and sod any eroded areas
____ Signs of piping (leakage), repair
____ Signs of seepage or wet spots on the downstream face of a berm, may require toe drains or chimney drains to solve problems
____ Stabilize emergency overflow structure if erosion observed
____ Remove obstructions blocking emergency overflow spillway

Vegetated Areas

____ Regular mowing to control vegetation, no cutting of native vegetation
____ Need for planting, reseeding or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established.
____ Evidence of grazing, motorbikes or other vehicles, repair
____ Check for invasive vegetation, remove where possible
____ All vegetation must be maintained per the approved planting plan

Outlet Control Structure

____ Inspect restrictor and remove debris if clogged or discharge reduced
____ Remove accumulated sediment at outlet
____ Scour and erosion at outlet, repair and reseed
____ Any ice damage to outlet of pipe, repair if necessary
____ Condition of trash tracks, remove debris
____ Outlet channel conditions downstream

Access for Maintenance Equipment

____ Remove any obstructions placed in maintenance easements

Safety Features

____ Access controls to hazardous areas
____ Fences
____ Loose or damaged posts
____ Loose or broken wires
____ Accumulated debris in fences
____ Condition of gates
____ Signs

Detention Volume

____ Inspect all stormwater detention facilities to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed. Specific locations in the stormwater management system, designed to accumulate sediment, shall be dredged as necessary to prevent sediment from reaching the invert of any gravity outlet pipe.

3. Volume Control Facility

Routine inspections and maintenance of volume control facilities shall be performed by the Owner on a yearly or as-needed basis. Specific items of concern include:

____ Facility shall be inspected yearly using the monitoring well to verify the system is functioning properly.
____ Surface of permeable pavement shall be cleaned with a low-pressure power washer.
____ Accumulated sediment from surface shall be vacuumed out and disposed of properly.
____ Appropriate signage shall be repaired if damaged or illegible.

4. Stormwater Collection System

The Owner shall perform monthly inspections of all components of the stormwater collection system. The monthly inspection shall occur between March and November and include the following specific areas of concern:

Storm Inlets/Manholes

____ Remove accumulated leaves and other debris from grates

____ Reset covers/lids on as-needed basis
____ Remove accumulated sediment from bottom of manhole when 50% of sump is filled

Storm Sewers/Culverts
____ Visually inspect pipes by removing manhole lids, make repairs as necessary
____ Storm sewers and culverts shall be checked for siltation deposits at inlets, outlets, and within the conduit, clean out as necessary
____ Restore riprap at outfalls if erosion observed
____ Restore riprap at outfalls
____ Replant and reseed any eroded areas

Overland Flow Routes (Ditches/Swales)
____ Annual visual inspections shall be performed that verify the design capacity of the overland flow routes is maintained. The slope and cross-sectional area of the ditch/swale shall be verified during this inspection.
____ Remove any obstructions that have been placed in the drainage path
____ Seed and sod any eroded areas
____ Restore riprap as necessary
____ Regrade to provide positive drainage as necessary (A Professional Land Surveyor may be required to check grades to ensure positive drainage).
____ Regular mowing to control vegetation
____ Rototill bottom of dry swales if not drawing down within 48-hours

5. Vegetated Areas
____ Need for planting, reseeding, or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area after second growing season). Reseed with alternative native grass species if original grass cover has not successfully established.
____ Evidence of grazing, motorbikes, or other vehicles, repair.
____ Check for invasive vegetation, remove when possible.
____ Regular mowing to control vegetation; it is recommended that native vegetation remain uncut.
____ Dead or damaged non-native grassy areas – repair with seeding with fertilization or seeding with mulch.
____ Compensatory storage area shall be reseeded with appropriate vegetation according to the approved planting plan.

6. Qualified Sewer Construction
____ Perform manhole inspections once every five years, make repairs as necessary.
____ Perform sewer inspections once every five years, make repairs as necessary.
____ Perform regular sewer cleaning so that every sewer segment is cleaned once every five years.
____ Remove any obstructions placed in maintenance easements that may impede maintenance equipment access.

SAMPLE - WETLAND MITIGATION
5 YEAR MANAGEMENT AND MONITORING PLAN

DATE

PREPARED FOR:

(USACE Application No. LRC-XXXX)
(XYZ Project No. XX-XXXX)

Introduction

The (OWNER) will implement a 5-Year Wetland Management and Monitoring Plan for the wetland mitigation and natural areas within the _____ project area. The purpose of this Wetland Management and Monitoring Plan is to define the responsibilities of OWNER in regards to the wetland mitigation and restoration.

The success or failure of the project is largely dependent upon completion of maintenance and monitoring during the five-year management program. The following Wetland Management and Monitoring Plan includes a schedule describing Wetland Mitigation Performance Standards and Reporting and Compliance requirements.

Vegetation Performance Standards

The following Ecological Performance Standards apply to USACE wetland restoration and enhancement areas, and associated buffer that are providing wetland mitigation credit. The limits of these combined areas are shown on the attached map and identified as "USACE REGULATED WATERS, WETLAND, AND BUFFER LIMITS".

1. A temporary cover crop shall be planted on all slopes immediately upon completion of any earthwork to prevent soil erosion. Soil erosion and sediment control measures shall be in place during all construction work. An erosion control blanket may also be required depending on site conditions and season of planting. Within three (3) months, at least 90% of this area, as measured by aerial coverage, will be vegetated. If the desired long-term slope vegetation is not planted with the temporary crop, it shall then be planted in the first available growing season appropriate for each plant community. All cover crop species shall be non-persistent or native and not allelopathic.

2. Species selected for the planting shall be native to the county where the mitigation site is located (ref. Swink and Wilhelm, Plants of the Chicago Region, 1994), and shall be appropriate for the hydrologic zone to be planted.
    - **Marsh**- minimum of 15 native perennial species
    - **Sedge meadow/wet prairie**- minimum of 35 native perennial species
    - **Mesic Prairie** (buffer) - minimum of 25 native perennial species

3. At least 50% of the required minimum number of species shall occur at a 10% frequency or greater, within each plant community zone or area. Multiple transects within a given plant community may be combined for this frequency analysis.

4. A native mean coefficient of conservatism value (native mean C value) of greater than or equal to 3.5 shall be achieved in each separate vegetated plant community (e.g. wet prairie, marsh, mesic prairie buffer), and as measured over the entire mitigation site area. Native plant species coefficients of conservatism are designated in Swink, Floyd and Gerould Wilhelm, Plants of the Chicago Region (Indianapolis: Indiana Academy of Science, 4th edition, 1994).

   Interim Yearly Standards:

   a. By the end of the first full growing season, at least 30% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

   b. By the end of the second full growing season, at least 50% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

   c. By the end of the third full growing season, at least 60% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

   d. By the end of the fourth and fifth full growing seasons, at least 80% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

5. The native floristic quality index value (native FQI) shall be greater than or equal to 20 in each separate vegetated community zone and as measured over the entire mitigation site. The floristic quality assessment method is described in Swink and Wilhelm, Plants of the Chicago Region.

   Steps # 4 and #5 are evaluated based upon the overall plant community inventories as well as transect summaries. If a portion of the site has achieved compliance with the performance standards, the standard shall be maintained in that portion until the final compliance sign off for the mitigation site.

6. No area over the entire mitigation site greater than 1 square meter shall be devoid of vegetation, as measured by aerial coverage, unless specified on approved mitigation plans. This standard does not apply to emergent, streamside and aquatic communities.

7. None of the three most dominant plant species in any of the wetland community zones may be non-native species or weedy species, including but not limited to:

    - Typha angustifolia
    - Typha X glauca
    - Phragmites australis
    - Lythrum salicaria
    - Salix interior
    - Phalaris arundinacea

    These species shall not cumulatively comprise more than 5% of the total percent cover (not relative cover) for each planted restored community. This standard does not apply to existing emergent wetland, streamside and aquatic communities or enhancement areas.

8. The native perennial species within each wetland plant community shall represent at least 80% of the total dominance measure. A lower percent native perennial species of the total dominance measure may be acceptable if it is demonstrated with transect data that the remaining dominance percentage is by native annual and biennial wetland plant species and the FQI and mean C standards are exceeded.

9. A vegetation map of the mitigation site based on as-built drawings developed at the completion of implementation shall be submitted. This information shall be descriptive and define the limits of all vegetation areas by community type, based on field observations. The permanent transects shall be shown on this map. Representative photographs of each vegetation area by general community zone shall be submitted to the Corps.

Hydrology Performance Standards

Consistent with the Corps of Engineers Wetlands Delineation Manual (1987) and/or any appropriate regional supplements, all areas to receive credit as wetland plant communities shall have soils saturated within 12 inches or less of the ground surface for at least 12.5% of the growing season as defined in this ICA. To meet this standard the mitigation site shall demonstrate inundated or saturated soils for 23 consecutive days during the growing season. In addition to this minimum, hydrology data should reflect a hydrologic regime that is appropriate to the native plant community proposed for establishment.

Monitoring Standards

Monitoring and data collection are intended to assess whether the mitigation has attained the following performance standards for full credit release and certification. Monitoring is required for five (5) years from the completion of planting of the wetland area. It shall also be recognized that monitoring may need to continue beyond the five (5) year period until full performance standards are attained. This may be especially true for forested communities with a longer growing time to maturity.

Wetland Delineation

To meet full performance standards, a routine wetland delineation shall be performed to verify the total acreage of wetlands and waters achieved on site. If requested by the Corps, the wetland areas shall be staked for final inspection. The Corps may request that the property boundaries for the mitigation site shall be marked as well. The delineation shall be included/reported in the final monitoring report, if not before. It is recognized that the actual acreage of aquatic resources/wetland will vary from that in the plans; however, it shall approach or exceed the acreage specified in the permit.

Vegetation Monitoring

Permanent straight line sampling transects shall be established, plotted onto project drawings and a current aerial photograph of the site, across each proposed plant community of the mitigation site. Sufficient transects shall be established to provide full representation of all plant communities within the site, which might include more than one of each type. Each transect shall consist of a series of 1.0 square meter quadrats (no fewer than 10) at regular or random intervals (5-10m suggested interval). The number of quadrats depends on system complexity and the size of each plant community for which credit is sought. A rough guideline is 2 quadrats per acre in each plant community as a minimum. The plant sampling shall be done in May/June and August/September each year following the initial planting, throughout the monitoring period. Data shall be reported by plant community, and by transect. A total plant species list should be compiled over the entire site for which credit is sought. Data may be summarized by plant community for which credit is sought in monitoring reports, however, the full sampling data should be provided in an appendix to the annual monitoring report. Species dominance shall be determined by calculating importance values, with at least the following two parameters: frequency and percent cover. Absolute percent aerial cover data should be reported, though the frequency and cover may be relativized to calculate Importance Values (e.g. RF + RC = IV).

Monitoring Reports

1. The Chicago District shall determine the information to be included in monitoring reports. This information shall be sufficient for the Chicago District to determine how the compensatory mitigation project is progressing towards meeting its performance standards,

and may include plans (such as as-built plans), maps, and photographs to illustrate site conditions. Monitoring reports may also include the results of functional, condition, or other assessments used to provide quantitative or qualitative measures of the functions provided by the compensatory mitigation project site.

2. The permittee or sponsor is responsible for submitting monitoring reports in accordance with the special conditions of the DA permit or the terms of the instrument. Failure to submit monitoring reports in a timely manner may result in compliance action by the Chicago District.

3. Monitoring reports shall be provided by the Chicago District to interested federal, tribal, state, and local resource agencies, and the public, upon request.

Adaptive Management

1. If the compensatory mitigation project cannot be constructed in accordance with the approved mitigation plans, the permittee or sponsor shall notify the Chicago District. A significant modification of the compensatory mitigation project requires approval from the Chicago District.

2. If monitoring or other information indicates that the compensatory mitigation project is not progressing towards meeting its performance standards as anticipated, the responsible party shall notify the Chicago District as soon as possible. The Chicago District will evaluate and pursue measures to address deficiencies in the compensatory mitigation project. The Chicago District will consider whether the compensatory mitigation project is providing ecological benefits comparable to the original objectives of the compensatory mitigation project.

3. The Chicago District, in consultation with the responsible party (and other federal, tribal, state, and local agencies, as appropriate), will determine the appropriate measures. The measures may include site modifications; design changes, revisions to maintenance requirements, and revised monitoring requirements. The measures shall be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives.

4. Performance standards may be revised in accordance with adaptive management to account for measures taken to address deficiencies in the compensatory mitigation project. Performance standards may also be revised to reflect changes in management strategies and objectives if the new standards provide for ecological benefits that are comparable or superior to the approved compensatory mitigation project. No other revisions to performance standards will be allowed except in the case of natural disasters.

Long Term Management

1. The applicant shall submit a long term management strategy with an associated financial assurance plan for Chicago District approval prior to authorization. The strategy shall include a description of long-term management needs, annual cost estimates for those needs, and identify the funding mechanism that will be utilized to meet the needs. The applicant shall also identify the entity responsible (and provide supporting documentation, e.g. agreement or letter of intent) for the ownership and long-term management of the site. Identifying the responsible entity prior to permit issuance will aid in the processing of the instrument. It is preferred that the proposed long term manager or organization have expertise in executing adaptive management procedures. Applicants shall establish agreements for long-term management with public or private conservation organizations with final approval of the Chicago District.

2. All land, including associated uplands, which are part of the mitigation site shall be protected from future development by a permanent conservation easement, deed restriction or other real estate instruments as deemed appropriate by the Chicago District. This easement or deed restriction, along with a map of the site, shall be recorded with the appropriate county register of deeds, attached to the abstract of title, with a certified copy of the registration provided to the Chicago District prior to authorization.

Compliance Signoff

The Chicago District will issue final approval at the end of the management and monitoring period if the mitigation is in compliance and the Long Term Manager has been established for the site. The Long Term Manager shall provide supporting documentation stating their acceptance of the site in perpetuity. To be successful, the mitigation shall demonstrate the characteristics specified in the approved mitigation plan, the stated goals, and the Mitigation Requirements. Failure to comply with all the terms and conditions of a Department of the Army permit, including the mitigation plan and Mitigation Requirements, at any time may result in suspension and/or revocation of the permit and additional enforcement actions. The Corps may issue early compliance signoff if the required performance standards have been met. If the mitigation fails, the permittee will be required to determine the cause of the failure and to correct the error at the mitigation site, or to conduct additional mitigation activities.

The TOLLWAY shall also be responsible for successful completion and submittal of the required Special Condition project documentation to the Illinois Environmental Protection Agency, as listed in Item Number 8 of the IEPA October 16, 2013, Water Quality Certification.

REFERENCES

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