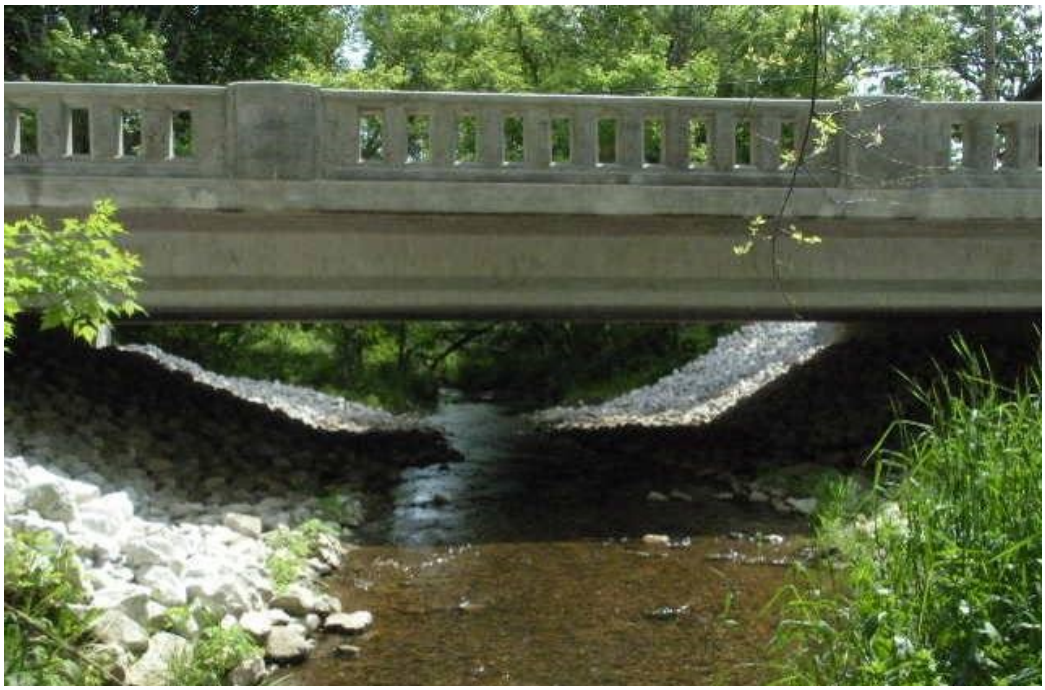
McHenry County Stormwater Management Program Plan



Alden Road Bridge - Alden, IL Photo by: Wynnyth Adair

Last Revised May 2017

County of McHenry

McHenry County, Illinois

SMPP

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Adapted from Lake County Stormwater Management Commission

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1 Overview of the Stormwater Management Program Plan

Fox River – McHenry County, IL

1.A Introduction

This Stormwater Management Program Plan (SMPP) was developed by McHenry County to meet the minimum standards required by the United States Environmental Protection Agency (USEPA) under the National Pollutant Discharge Elimination System (NPDES) Phase II program. Federal regulations through the USEPA require that all Municipal Separate Storm Sewer Systems (MS4s), partially or fully in urbanized areas based on the 2000 census, obtain stormwater permits for their discharges into receiving waters. There are many different types of MS4s including municipalities, park districts, drainage districts, township highway departments, counties, and county and state transportation departments (MCDOT and IDOT).

The SMPP describes the procedures and practices that will be implemented by McHenry County toward the goal of reducing the discharge of pollutants within stormwater runoff in order to comply with Federal standards. Compliance with the plan is intended to protect water quality thus contributing to the following amenities:

- Cleaner lakes and streams;
- Improved recreational opportunities and tourism;
- Flood damage reduction;
- Better aesthetics and wildlife habitat; and
- A safer and healthier environment for citizens.

The SMPP addresses the primary program elements for all McHenry County activities, including the manner in which the County:

- Reviews, permits, and inspects construction activities within its corporate limits;
- Manages planning, design, and construction of projects performed within corporate limits;

- Maintains its facilities and performs day-to-day operations;
- Works toward protecting the receiving waters from illicit discharges;
- Provides public education and outreach;
- Trains its employees in carrying out and reporting program activities; and
- Continually monitors and evaluates the program.

1.B State & Federal Regulations

Federal environmental regulations based on the 1972 Clean Water Act (CWA) require that MS4s, construction sites, and industrial activities control polluted stormwater runoff from entering receiving bodies of water (including navigable streams and lakes). The NPDES permit process regulates the discharge from these sources based on amendments to CWA in 1987 and the subsequent 1990 and 1999 regulations by the USEPA. In Illinois, the USEPA has delegated administration of the Federal NDPES program to the Illinois Environmental Protection Agency (IEPA). On December 20, 1999, the IEPA issued a General NPDES Phase II Permit for all MS4s. The most recently updated General Permit, effective March 1, 2016, is included in Appendix 5.2. Under the General NPDES Permit No. ILR40, each MS4 was required to submit a Notice of Intent (NOI) declaring compliance with the conditions of the permit by March 10, 2003. The original NOI described the proposed activities and best management practices that occurred over the original 5-year period toward the ultimate goal of developing a compliant SMPP. At the end of the 5th year (March 1, 2008) the components of the SMPP were required to be implemented; per the ILR40 permit. The IEPA reissued the ILR40 permit with effective dates of April 1, 2009 and March 1, 2016.

Additionally, under the General Permit No. ILR10, also administered by the IEPA, all construction projects that disturb greater than one (1) acre of total land area are required to obtain an NPDES permit from the IEPA prior to the start of construction. Municipalities covered by the General Permit No. ILR40 are automatically covered under ILR10 thirty (30) days after the IEPA receives the NOI from the municipality.

1.C Countywide Approach to NPDES Compliance

The McHenry County Stormwater Management Commission (MCSC) is a countywide governmental agency created by county ordinance under the authority of Illinois Revised Statute 55 ILCS 5/5-1062. The MCSC's goals include the reduction of flood damage and water quality degradation. Another purpose of the MCSC is to assure that new development addresses non-point source pollution, does not increase flood and drainage hazards to others, or create unstable conditions susceptible to erosion. To accomplish this, the MCSC works cooperatively with individuals, groups, and units of government as well as serving as the corporate enforcement authority for the McHenry County Stormwater Management Ordinance (MCSMO). The MCSC enforces the MCSMO in Non-certified Communities on behalf of the municipalities. The municipality is responsible for administering and enforcing the MCSMO in a Certified Community. A municipality is considered a Certified Community after its petition is approved by the MCSC. The MCSC utilizes technical assistance, education programs, and watershed planning to increase public awareness of natural resources and the impacts of urbanization on stormwater quality. In addition, the MCSC provides solutions to problems related to stormwater and identifies effective ways of managing natural resources.

The General NPDES Permit allows for MS4s to take credit for activities being performed by a qualifying local program (QLP) toward meeting its permit requirements. The County's NPDES program is a qualifying local program for MS4s in McHenry County. As part of their ongoing services, the County performs some functions related to each of the six minimum control measures. McHenry County has been providing services under four of the six minimum control categories since it began implementing a comprehensive, countywide stormwater program in 2004. However, MS4s are required to provide additional services for each of the Minimum Control Measures with the greatest effort in the Illicit Discharge Detection and Elimination and Pollution Prevention/Good Housekeeping categories.

McHenry County sponsors informative workshops and roundtable discussions. Using the countywide approach, municipalities may take credit for the programs and ordinances developed by McHenry County as well as tailor specific local best management practice (BMP) programs for compliance with the Phase II rules.

As part of the countywide approach to comply with the NPDES Phase II program, McHenry County assists municipalities with the following:

- Supports NPDES II presentations to local boards;
- Develops model Notice of Intent (NOI);
- Provides countywide drainage system overview and receiving waters map;
- Provides general 5-year BMP Plan for NOI;
- Develops specific BMP Measurable Goals and program development tasks;
- Serves as a clearinghouse for all support information and acts as a liaison to the IEPA and the USEPA;
- Drafts a model of the Annual Performance Report and specific BMP Measurable Goals for the subsequent years;
- Provides model Illicit Discharge Ordinance language; and
- Provides a SMPP Template.

McHenry County countywide services qualify for credit under four of the six Minimum Control Measures. Additionally, the County developed the SMPP template for revision/adoption by the MS4s. This template is intended to be reviewed, revised, and accepted by MS4s within the county and describes a program intended to be in compliance with the ILR40 permit requirements. A general list below summarizes additional County services under the six minimum control categories:

1. **Public Education and Outreach on Storm Water Impacts**: McHenry County provides, through its Public Information Coordinator, various training workshops, homeowners workshops, brochures, training manuals, teacher/student education, videos, press releases, etc.

2. **Public Involvement / Participation**: McHenry County coordinates and participates in public meetings and committees, MCSC Board of Commissioners, Technical Advisory Committee (TAC), citizen watershed planning committees, and volunteer support.

3. **Construction Site Storm Water Runoff Control**: The MCSC adopted the countywide MCSMO in 2004, with the most recent amendments adopted April 5, 2016, which establishes the minimum stormwater management requirements for development in McHenry County. The MCSMO, which is enforced by the MCSC as well as by Certified Communities in the county, establishes the minimum standards for construction site runoff control.

4. **Post-Construction Storm Water Management in New Development and Redevelopment**: The MCSMO also establishes standards for post-construction runoff control.

1.D Organization of the Stormwater Management Program Plan

The Stormwater Management Program Plan (SMPP) identifies best management practices to be implemented in six different categories. These categories are:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

Chapter 1: Overview of the SMPP - discusses the format of the SMPP document and the regulations associated with NPDES Phase II through county, state and federal agencies.

Chapter 2: Program Management - discusses the logistics of the SMPP. This includes the organization, implementation, and responsible parties necessary to achieve overall compliance with the SMPP and Permit. It also identifies how the County coordinates with other county and state agencies and discusses the legal authority that the MS4s have to implement the SMPP components.

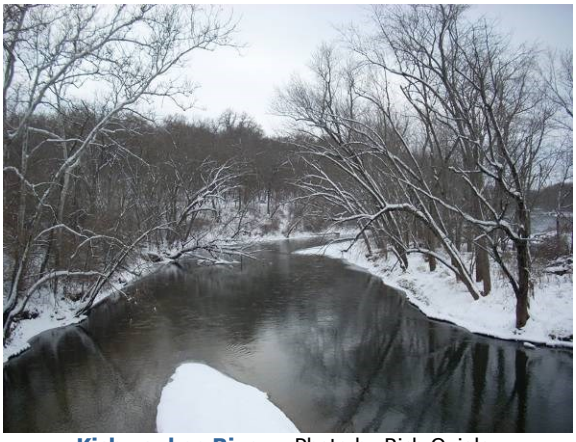
Chapter 3: The Program - addresses stormwater pollutant control measures implemented by the County per the six minimum control categories established by the USEPA:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

Chapter 4: Program and Performance Monitoring, Evaluation, and Reporting - describes the monitoring, evaluation, and reporting procedures associated with the program. The SMPP is a guide created to protect the County receiving waters from pollution and resultant degradation. This Chapter assists in identifying best management practices and processes that may require improvement and refinement as the document becomes an effective tool.

Chapter 5: Appendices - including forms, references, exhibits, and bibliography.

1.E Watersheds, Sub-watersheds, and Receiving Waters



Kishwaukee River – Photo by Rich Quigley

The County of McHenry is primarily located within the Fox River and Kishwaukee River Watersheds with six sub-watersheds, including: Coon Creek, Kishwaukee River, Piscasaw Creek, the Upper and Lower Fox River, and Nippersink Creek. Lakes and other on-stream bodies of water are also considered part of the receiving water system.

> ***Watershed:*** The land area that contributes stormwater to one of the two major rivers in McHenry County.
>
> ***Sub-watershed*:** The land area that contributes stormwater to one of the receiving waters tributary to a major river.
>
> ***Receiving Water:*** A natural or man-made system into which stormwater or treated wastewater is discharged, including the two major rivers in McHenry County, their tributary stream systems and other Waters of the U.S.

The major and sub-watersheds and receiving waters are presented on **Figure 1** ***Map of Major and Sub-watersheds and Receiving Waters***. The following includes a description of the County watersheds including: Coon Creek, Kishwaukee River, Piscasaw Creek, the Upper and Lower Fox River, and Nippersink Creek,.

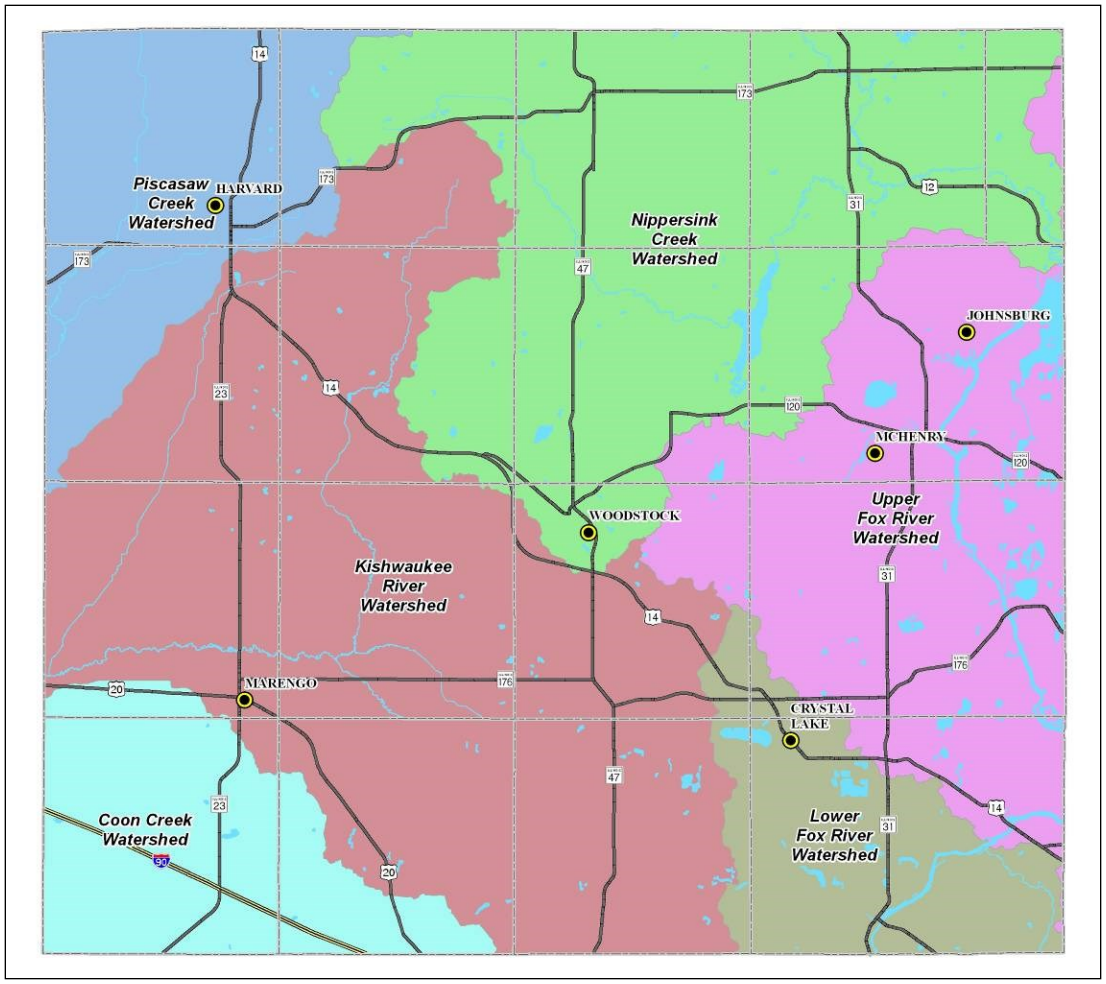


Figure 1: Map of Major and Sub-watersheds and Receiving Waters

Piscasaw Creek Watershed

The Piscasaw Creek Watershed is a large, 67.1-square-mile watershed that stretches from southern Wisconsin to the Kishwaukee River in northwest McHenry County and ultimately into Boone County to the west. Piscasaw Creek is the receiving stream for several smaller sub-watersheds including: West Branch Piscasaw Creek, Lawrence Creek, Mokeler Creek, Geryune Creek, and Little Beaver Creek. These sub-watersheds account for an additional 61 square miles of drainage area, making the Piscasaw the fourth largest tributary to the Kishwaukee River (behind South Branch Kishwaukee River, Coon Creek, and Kilbuck Creek). The watershed is characterized as a rural area, dominated by row crops and rural grasslands.

About 23% of the sub-watershed soils are hydric in nature, but only 3% of the sub-watershed consists of wetlands. There are also currently eight recorded Federal and State threatened and endangered species of plants and animals.

Upstream of Chemung, Illinois, Piscasaw Creek and its tributaries, are almost entirely channelized, and the natural steam corridors have been heavily encroached upon by row crop agriculture. This region of the stream either was or currently is under the jurisdiction of the Chemung Drainage District, but the drainage district is inactive as of 2010.

Limited amount of water quality data is available for the watershed. The IEPA publishes water quality data collected for the sub-watershed. The last Intensive Basin Survey (IBS) completed was in 1997. The Piscasaw Creek is listed as impaired on the IEPA 303(d) list for fish consumption (mercury) and investigations by the USEPA in 1996 and 1997 revealed excessive nutrients in some reaches and noted violations of water quality standards in reaches downstream of point source discharges.

While Piscasaw Creek is on the Nationwide Rivers Inventory list as a Class A stream known for its fishability and other naturalistic qualities with potential to be rated for recreation, Lawrence Creek is on the draft 303(d) list dated February 2016 listed as not able to support aquatic life on account of total phosphorus, but it is the home to the Blanding's Turtle, a state threatened species. Downstream of Chemung, Mokeler Creek is also included on the 303(d) list as impaired by sedimentation/siltation for aquatic life.

Kishwaukee River Watershed

The Kishwaukee River Watershed covers a total of 779,747 acres, originating in Woodstock in McHenry County, flowing in an east to west direction to Boone County where it becomes a tributary to the Rock River. Much of the region around the Kishwaukee River was shaped by glaciations. Several natural areas, quarry outcroppings, and the Harvard West Geologic area in McHenry County have examples of pitted outwash plains and moraines protruding down through the valleys of this watershed.

Rush Creek, originating near Harvard, Illinois is a tributary of the Kishwaukee River. It flows south through McHenry County and is 10 stream miles in length. Rush Creek is on the Nationwide Rivers Inventory as a Class A stream known for its fishability and other naturalistic qualities with potential to be rated for recreation.

For the Kishwaukee River mainstem, the headwaters segment IL_PQ-13 does not support aquatic life nor fish consumption. The next segment IL_PQ-07 from the confluence of the South Branch into the Main Branch of the Kishwaukee River to the county line does support aquatic life but not fish consumption. The primary causes of water quality problems are nutrients and organic enrichment (low dissolved oxygen) attributed to agriculture and municipal point source pollution. Other causes of water quality problems are sedimentation/siltation, polychlorinated biphenyls and mercury, contributing source unknown. Segment IL_PQ-10 is also impaired for swimming on account of high fecal coliform counts.

The South Branch of the Kishwaukee River-East stream sections (IL_PQI-10 and IL_PQI-H-C5) are impaired for aquatic life. The primary cause of water quality problems for each segment is total phosphorus and low dissolved oxygen. Both issues can be attributed to agriculture and municipal point source pollution. Other causes of water quality problems are sedimentation/siltation and barium (segment IL_PQI-10) and chloride and copper (segment IL_PQI-H-C5).

Coon Creek Watershed

Coon Creek flows north from DeKalb County, Illinois into the southwest corner of McHenry County. The stream continues flowing northeast from the DeKalb County-McHenry County line until it curves northwest and empties into the Kishwaukee River in Boone County to the west. Coon Creek is the second largest tributary of the Kishwaukee River behind only the South Branch Kishwaukee River. In McHenry County, Lower Coon Creek still maintains many of its natural features, such as pools and riffles, and is home to at least 34 different species of fish. Some of the species found in Coon Creek include: bluegill, black crappie, smallmouth bass, largemouth bass, and northern pike. The Blacknose Shiner (*Notropis heteropis*) is an example of an endangered fish found in the creek. The creek is also home to the state-threatened Blanding's Turtle (*Emydoidea blandingii*) and the snapping turtle. Coon Creek has several tributaries in McHenry County including: Riley Creek, Unnamed Tributary to Coon Creek, Spring Creek, and Williamson Creek.

Lower Coon Creek and its tributaries are characterized as moderate to low gradient sand and gravel bottom stream channels that were partly channelized (72%) in the early 20th century. There are countless field tile outlets into the main stem that drain the adjacent agricultural fields. Hydric soils are thought to underlie approximately 30% of the watershed, although wetlands make up less than 3.3% of the watershed – a key indicator to the existence of presettlement wetlands. The National Wetlands Inventory (NWI) has identified 300 existing wetlands in the watershed, ranging in size from 0.001 acres to more than 73 acres, and account for 1,177 acres, or about 3.26% of the watershed land surface.

Lower Coon Creek is considered impaired under the IEPA guidelines. Though the creek is considered to be in "full support" of aquatic life, the stream is considered "non-support" for swimming. An Ambient Water Quality Monitoring Network (AWQMN) station is located in the watershed on Harmony Road. The latest draft 303(d) report dated February 2016, lists Lower Coon Creek as being impaired by fecal coliform in the water. No specific source is known and at this point in time, no one can say for certain what is causing the pollution due to insufficient data.

Nippersink Creek Watershed

The Nippersink Creek is a 23-mile long creek that flows from headwaters in Alden Township in northwestern McHenry County through several municipalities including: Alden, Greenwood, Wonder Lake, Spring Grove, and Fox Lake. The main channel meanders southeast to fill the 830-surface acre reservoir located in Wonder Lake before flowing back to the northeast and joining its north branch near Spring Grove. The 87,624-acre Nippersink Watershed empties into Pistakee Lake. Nippersink Creek, which is the largest tributary to the Fox River, is home to at least 21 animals and 30 plants listed as Illinois endangered or threatened species and contains 46 McHenry County natural area inventory sites.

For the Nippersink Creek, the headwaters segment IL_DKT-06, which extends to Wonder Lake, does not support aquatic life, fish consumption, or primary contact. The next segment IL_DKT-04, from Wonder Lake to Pistakee Lake, does support aquatic life but not fish consumption or primary contact. The primary causes of water quality problems for both segments are polychlorinated biphenyls (possible break down of Aldrin plus other sources), mercury, and fecal coliform attributed to agriculture and municipal point source pollution. Aldrin, which is a very poisonous insecticide used in the 1970's on corn and potato crops, and nickel are also present in IL_DKT-06 as pollution sources.

As this stream is tributary to the Upper Fox Watershed, these contaminants are contributing to its growing water quality impairment as well.

Upper and Lower Fox River Watersheds

The Upper Fox River Watershed covers a total of 612 square miles. Several major streams which comprise the Upper Fox River Watershed flow through McHenry County including: the Fox River, Boone Creek, and Nippersink Creek. Crystal Lake, Crystal Creek, and Woods Creek are located in the Lower Fox River Watershed. The majority of these two watersheds are located in agricultural lands with expanding urban areas. Boone Creek, McCullom Lake, and the Fox Chain O' Lakes, one of the top three recreational waterways in the nation, are all located in McHenry County and receive water from the Upper Fox River Watershed.

Pistakee Lake, segment IL_RTU, is one of the southern-most lakes on the Chain. It is on the IEPA 303(d) list for fish consumption and aesthetic quality on account of mercury, polychlorinated biphenyls, total phosphorus, and total suspended solids. McCullom Lake (segment IL_RTZD) is impaired for for aesthetics based on unknown causes. The primary causes of water quality problems in the Upper Fox Watershed in segment IL_DT-23 are fish consumption (polychlorinated biphenyls) and aquatic life from other unspecified sources. **With the contaminants from the Nippersink Creek and other tributaries adding to this river segment, the Upper Fox Watershed is in Stage 2 of being studied for Total Maximum Daily Load (TMDL) requirements. In response to the potential TMDL area on the Fox River, the Fox River Study Group (FRSG) has developed the Fox River Implementation Plan (FRIP) to provide an alternative approach to water quality improvement from the Stratton Dam to the McHenry-Kane county line. The FRIP provides guidance and recommendations regarding activities a MS4 can undertake to help improve the water quality of the river. The IEPA has accepted the methodology contained in the document, which would take the place of a TMDL standard for that reach of the river.**

The Lower Fox Watershed, segment IL_DT-22, primary causes of water quality problems are an amalgamation and accumulation of all those listed for the Nippersink Creek and Upper Fox Watersheds mostly attributed to agriculture, highway/bridge/road runoff, urban runoff, recreational activities, contaminated sediments, and dam/channel modifications. For this reach, chlorides, copper and sedimentation/siltation are causes for impairments to aquatic life; fecal coliform is the cause of primary contact impairments; and polychlorinated biphenyls are the cause of the impairment for fish consumption. Both Defiance Lake (segment IL_RTB) and Griswold Lake (segment IL_RTY), which both feed into the Lower Fox, are impaired for fish consumption on account of high levels of mercury. Silver Lake (segment IL_RTW) is impaired for fish consumption (mercury) and aesthetically impaired because of total phosphorus. On the most recent impairment list by the IEPA, both Lily Lake (segment IL_RTZJ), which drains northeast and into Lake County, and Lake Killarney (segment IL_RTZV) have been removed.

Moving further south on the Fox River, segment IL_DT-06 is impaired for primary contact (fecal coliform), aquatic life (dissolved oxygen), and fish consumption (polychlorinated biphenyls).

Recommended Standards for Development in McHenry County Watersheds

The MCSMO and McHenry County Unified Development Ordinance (UDO), which incorporated the Subdivision Ordinance and Conservation Design Ordinance, are documents that were adopted and set forth minimum requirements for development that provide a consistent level of protection to meet watershed specific needs including:

- Strengthening of tools for local governments to create economic development that protects natural resources and maintains quality of life;
- Improvement of intergovernmental coordination to achieve consistency of growth and resource management across the watershed;
- Creation of greater citizen awareness, appreciation, and responsibility regarding resource protection;
- Protection of sensitive environmental features and preservation of open space;
- Preserve natural stream corridors and provide vegetation buffers;
- Manage off-site discharges from construction or development to protect stream quality and aquatic habitat;
- Advocate sound land-management practices on agricultural lands to provide stream buffers, prevent erosion, and minimize water pollution; and
- Recognize the attributes of hydric soils and groundwater recharge areas for water management, ecological restoration, and limitations on development.

2 Program Management

This chapter describes the organizational structures of McHenry County and the IEPA. It further discusses the roles and responsibilities of the various involved parties.

2.A Implementation of this SMPP

The Stormwater Management Program Plan (SMPP) includes detailed discussions on the types of tasks that are required to meet the permit conditions under the NPDES Phase II program and how to perform these tasks. These tasks should be recorded and filed annually to track the progress of these tasks. At the end of the yearly reporting period (March 1 – February 28/29) the task information should be filed in a binder to document SMPP-related activities to the IEPA, or their authorized agent, in the case of an audit. It is anticipated that implementation of this SMPP constitutes compliance with the program. The SMPP must be posted on the County's NPDES website.

Annual Reports, Monitoring Data, NOI and Stormwater Management Plans shall be kept for a minimum of five (5) years after the end of the reporting year.

2.B Intra-Department Coordination

The County Board is the policy and budget-setting authority for the County. The Department of Planning and Development, Division of Water Resources, the Division of Transportation, Facilities Management, Emergency Management Agency, and the Department of Health work together to implement this SMPP. The Water Resources Manager has the primary responsibility for managing the overall program.

2.B.1 Water Resources Manager

The Water Resources Manager is the NPDES Coordinator responsible for the oversight and implementation of this SMPP. Responsibilities include:

- Lead contact for coordination with the McHenry County Stormwater Management Commission, the McHenry County Planning, Environment and Development Committee, the IEPA, contractors, the development community, and other external regulatory agencies;
- Understands the requirements of General Permit No. ILR40, ensures that the SMPP meets the requirements of the permit, and that the County effectively implements the SMPP;
- Ensures, or assists the Enforcement Officer in ensuring, that the County complies with all minimum MCSMO provisions;

- Ensures that the County Facilities comply with all minimum General Permit No. ILR40 permit requirements;
- Is aware when a County Project is required to be authorized under the General Permit No. ILR10. In these cases the Permit Coordinator should ensure that the NOI is received by IEPA at least 30 days prior to the start of construction;
- Assists the development community in understanding when a General Permit No. ILR10 is required and whether construction sites comply with the General Permit No. ILR10 and MCSMO permit conditions; and
- Should understand the role illicit discharges play in the overall NPDES Phase II program. In general, an incidence of non-compliance (ION) must be filed with IEPA for illicit discharges exiting an MS4's outfall into a receiving water. Additionally, if the illicit discharge is generated by a construction site, it may be necessary for both the applicant and the MS4 to file the ION form with the IEPA.

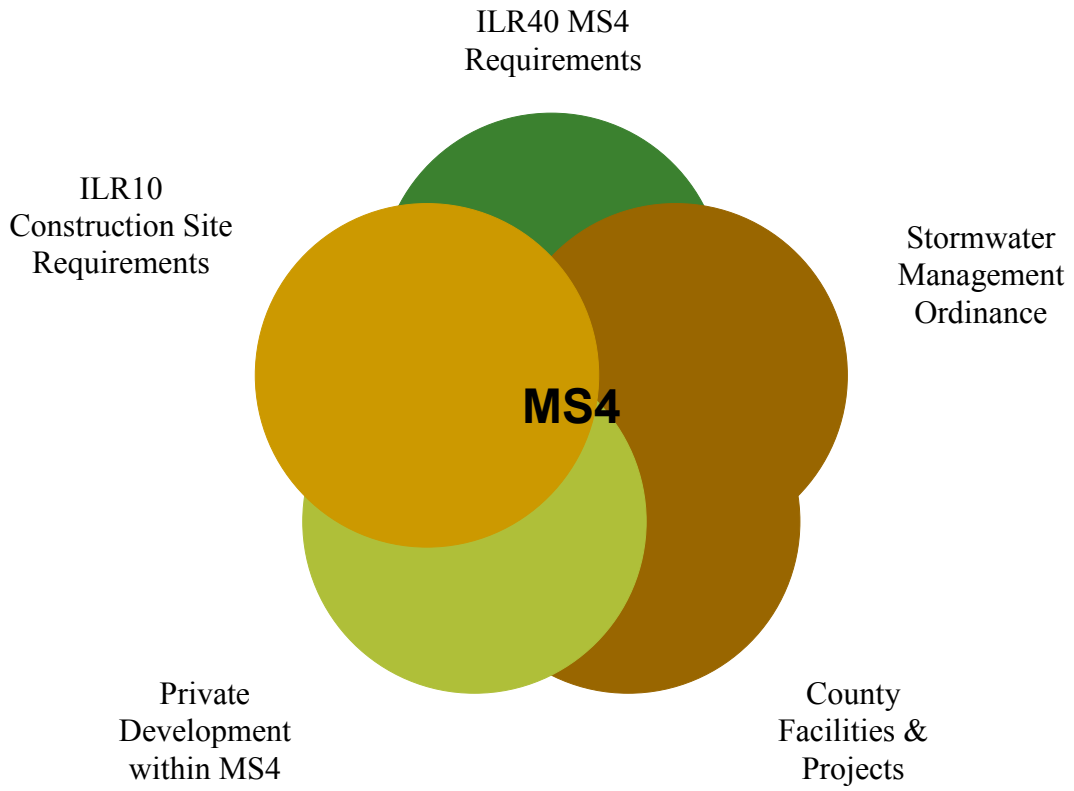


Figure 2: Roles of MS4
Provided by Gewalt Hamilton & Associates

2.B.2 Department of Planning and Development, Division of Water Resources

Engineering personnel support the NPDES Coordinators in obtaining compliance with both the NDPES and McHenry County Stormwater Management Ordinance programs.

For Certified Communities

The municipality's Engineer or consultant is also frequently the Enforcement Officer with respect to the administration and enforcement of the McHenry County Stormwater Management Ordinance (MCSMO). The design and construction of all public projects shall comply with the MCSMO. As the Enforcement Officer, the municipality's Engineer or consultant has the responsibility to concur that projects meet MCSMO standards prior to the issuance of permits, and oversee site inspections during construction. Refer to Chapter 3.D-3.F for additional information on this process.

For Non-Certified Communities/Unincorporated Areas

The McHenry County Chief Stormwater Engineer is the Enforcement Officer with respect to the administration and enforcement of the McHenry County Stormwater Management Ordinance (MCSMO). The Enforcement Officer has the responsibility to ensure that projects meet MCSMO standards prior to the issuance of permits and oversee site inspections during construction. Refer to Chapter 3.D-3.F for additional information on this process.

2.B.3 Division of Transportation and Facilities Management

Infrastructure maintenance activities within the MS4 are carried out by the Division of Transportation (MCDOT) personnel. Various departments including the Department of Planning and Development – Division of Water Resources, Department of Health, Emergency Management Agency, and Facilities Management personnel are designated as the primary entities responsible for performing the duties specified under Chapter 3.C Illicit Discharge Detection and Elimination and Chapter 3.F Pollution Prevention and Good Housekeeping.

2.C Coordination between McHenry County Departments & Divisions

Coordination between the MS4 and McHenry County occurs through participation in the Stormwater Management Ordinance, the Stormwater Commission, the Stormwater Technical Advisory Committee, Water Resources Action Plan Task Force and Natural Hazards Mitigation Planning Group through the Certified Community Status under the McHenry County Stormwater Management Ordinance (MCSMO). The MS4's Chief Stormwater Engineer is the lead contact for the participation in the Stormwater Commission and the Stormwater Technical Advisory Committee. The Water Resources Manager is the lead contact for the Water Resources Action Plan Task Force and coordinates the NPDES program. The Director of the Emergency Management Agency is the lead contact for the Natural Hazards Mitigation Planning Group. The

Drainage Engineer at MCDOT is the lead contact for the County's drainage infrastructure concerns. If the MS4 is a Certified Community, the MS4's Enforcement Officer or consultant is responsible for enforcement of the MCSMO.

2.D Coordination with Fox River Study Group

The Fox River Study Group (FRSG) is a diverse coalition of stakeholders working together to assess water quality in the Fox River watershed. Participants include Friends of the Fox River, Sierra Club, Fox River Water Reclamation District (Elgin), Fox Metro Water Reclamation District (Aurora), Fox River Ecosystem Partnership, Illinois Environmental Protection Agency (IEPA) and Blackberry Creek Watershed Plan Implementation Council as well as representatives from Algonquin, Aurora, Batavia, Crystal Lake, Elgin, Geneva, Island Lake, Kane County, Lake in the Hills, St. Charles and Yorkville.

The FRSG began meeting in the summer of 2001 to plan how to prepare for the upcoming Total Maximum Daily Load (TMDL) study on the river. A TMDL study is required by federal law because three segments of the Fox River appeared on the Illinois Environmental Protection Agency's list of impaired waters (the 1998 303(d) list). These segments, which lie between Holiday Hills and North Aurora, were listed because results from at least one water sample suggest there are water quality concerns. The most common concerns include low dissolved oxygen levels or high concentrations of fecal coliform bacteria. The 303(d) listing was updated in 2002, and now includes the entire length of the Fox River from the Wisconsin state line to the river's mouth at Ottawa with the most numerous causes listed as flow alteration, habitat alteration, low dissolved oxygen, nutrients, organic enrichment, PCBs, siltation or suspended solids.

The mission of the Fox River Study Group is to bring together a diverse coalition of stakeholders to work together to preserve and/or enhance water quality in the Fox River watershed.

The activities of the Fox River Study Group shall include, but are not limited to, the following:

- Participation in water quality monitoring efforts in the Fox River watershed;
- Development of a computer model of the Fox River watershed;
- Maintenance of the computer model as a management tool to promote efficient use of taxpayer and private money on watershed projects, assess the effect of various development options throughout the watershed, educate stakeholders, evaluate management priorities, identify sensitive regions within the watershed, develop continuing monitoring programs;
- Development of a plan to preserve and/or enhance the water quality of the Fox River; and
- Promotion, as needed, of the adoption of the watershed plan by appropriate entities who have the authority for its implementation.

Additional information and a copy of the Fox River Implementation Plan can be found at http://www.foxriverstudygroup.org/index.htm.

2.E Coordination with Watershed Groups

Coordination with Watershed Groups occurs on several levels. There are many active watershed groups within the county, all at different stages in programming and activity interest. Currently, the county participates in group meetings, watershed outreach projects, planning meetings, and various activities put on by the groups.

2.F Coordination of Contractors

The County may hire contracted services. The County also has a responsibility to hire contractors who are knowledgeable of the applicable requirements of the IEPA General Permit Nos. ILR40 and ILR10. The County shall provide appropriate training, or require documentation that appropriate training has been attended, for all contractors responsible for municipal green infrastructure.

2.G Coordination with the Public

Coordination with the public occurs on several levels. The Public Education and Outreach Program of this SMPP is discussed in Chapter 3.A. The Public Participation and Involvement Program of this SMPP is discussed in Chapter 3.B. The public has the opportunity to comment on the NPDES program through contacting any of the program coordinators and at the annual NPDES update meeting (to begin in Year 14).

2.H Coordination with the IEPA

The County is required to complete annual reports that describe the status of compliance with the General Permit No. ILR40 permit conditions and other related information. The annual report must be posted on the County's NPDES website, which can be found at the following link (www.co.mchenry.il.us/county-government/departments-j-z/planning-development/divisions/water-resources/npdes), and submitted to the IEPA by the first day of June each year. Annual reporting to the IEPA shall consist of an "implemented SMPP" for all tasks completed in accordance with this SMPP. Additional information should be provided for areas of enhancement or tasks not completed.

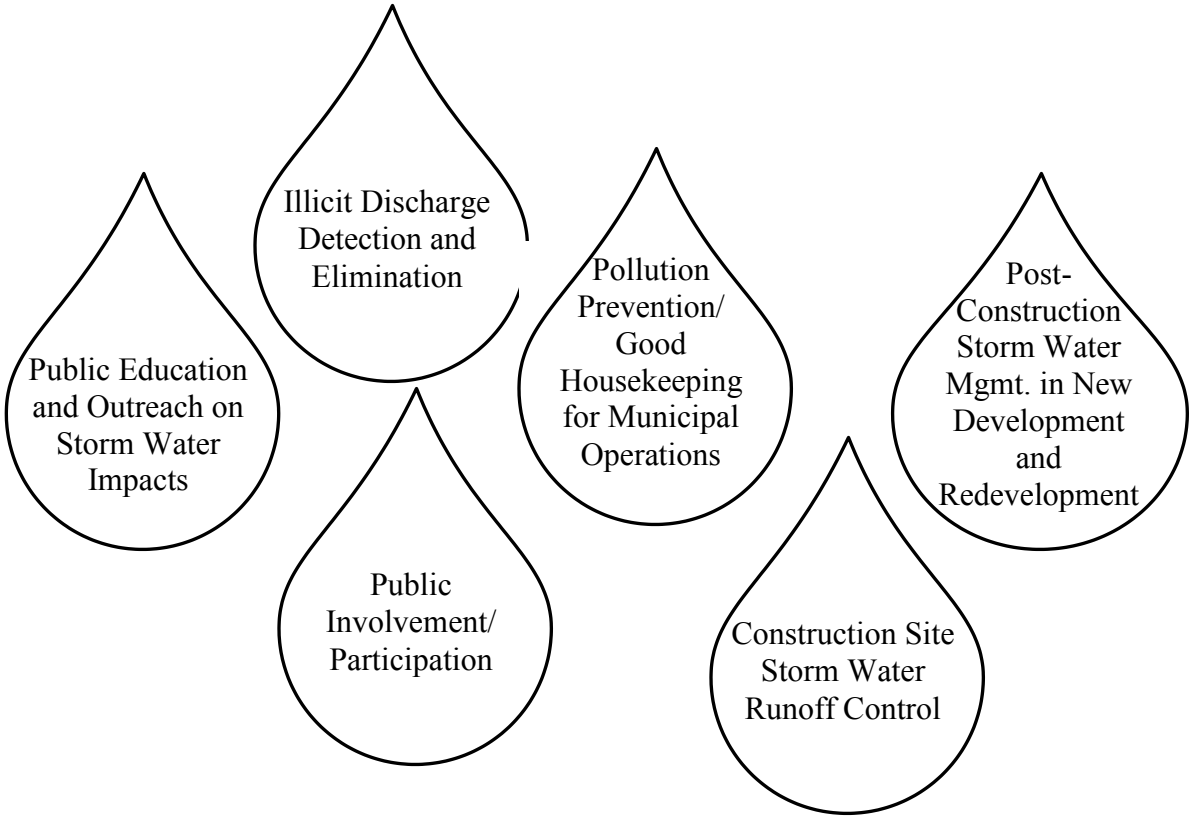
Records regarding the completion and progress of the SMPP commitments must be kept by the County. The task information should be updated throughout the year. The compiled task information in the appendices should be located in a binder with necessary supporting documentation. The binder must be available for inspection by both IEPA and the general public.

2.I Coordination with the Development Community

The County has a responsibility to assist the development community in understanding when a General Permit No. ILR10 is required and whether a construction site complies with the General Permit No. ILR10 and SMO permit conditions. The County should understand the role illicit discharges play in the overall NPDES Phase II program. In general, an incidence of non-compliance (ION) must be filed with the IEPA for illicit discharges exiting an MS4's outfall into a receiving water. Additionally, if the illicit discharge is generated by a construction site, it may be necessary for both the applicant and the MS4 to file the ION form with the IEPA.

Furthermore, the County has a responsibility to inform the development community that they are required to hire contractors that meet the qualifications necessary under the program. Refer to Chapter 3.D.1.a for additional information on qualified personnel.

3 The Program



This Stormwater Management Program Plan includes six components, each of which is necessary in an effort to reduce/eliminate stormwater pollution in receiving water bodies. Chapter 3.A describes the efforts to educate the public about stormwater pollution and stormwater pollution prevention. The manner in which the County incorporates public involvement and participation into the SMPP is explained in Chapter 3.B. Chapter 3.C describes the approach to detecting and eliminating stormwater illicit discharges. Construction site and post-construction runoff control and management are addressed in Chapters 3.D and 3.E, respectively. Lastly, Chapter 3.F discusses responsibilities for the care and upkeep of its general facilities, associated maintenance yards, and county roads to minimize pollution. This chapter also discusses necessary training for employees on the implementation of the SMPP.

3.A Public Education and Outreach on Storm Water Impacts

The County conducts public education programs that inform the community of potential impacts to receiving waters and the contributions the public can make to reduce pollutants in stormwater runoff. The County targets public schools, public libraries, developers, contractors, homeowners, business owners, boaters, and the remaining general public as part of this Public Education and Outreach Program.

The County of McHenry, which also serves as the qualifying local program (QLP), utilizes a variety of methods to educate and provide outreach to the public about the importance of managing pollutants that potentially could enter the stormwater system. The program includes the following activities which are discussed in greater detail in this chapter.

- Distribute information sheets and brochures regarding stormwater BMPs, water quality BMPs, and proper hazardous waste use and disposal.
- Maintain a water quality/stormwater section in the County online newsletter distributed by the County.
- Attend / sponsor outreach activities to homeowners / property owner associations, commercial / industrial facilities, schools, and other events.
- Publicize and participate in local fairs and expos.
- Maintain the County website, which offers links to additional educational information and ways to contact County personnel.
- Advise on the potential impacts and effects on stormwater discharge due to climate change www.epa.gov/climatechange.

3.A.1 Distributed Paper Material

The County of McHenry actively pursues the acquisition of educational sheets prepared by the IEPA, USEPA, Center for Watershed Protection, Chicago Metropolitan Agency for Planning (CMAP), formerly Northeastern Illinois Planning Commission (NIPC), and other agencies and organizations. The County maintains a list of available publications in the SMPP binder and on the website. The County lists the Division of Transportation and Division of Water Resources contact information on all County outreach publications to encourage residences to contact the County with environmental concerns. See Appendix 5.3 for annual distributed paper material.

Publications are provided in the following manner:

- At take-away racks located McHenry County Division of Transportation, McHenry County Department of Planning and Development, McHenry County Department of Health;
- At outreach events;
- Through social media;
- Via the County online newsletter;
- At Earth Day/Green Day events held throughout the County; and
- At scheduled meetings with the general public. These meetings are on an as-needed or as-requested basis and may be with the affected residences, homeowners associations, businesses, or local schools.

3.A.2 Speaking Engagement

Although this task is not included in the current NOI and annual year-end report, the County's Water Resources Division staff and MCDOT staff have been involved in multiple speaking engagements throughout the year. See Appendix 5.4 for a list of speaking engagements.

3.A.3 Public Service Announcement

The County of McHenry recognizes the importance of disseminating information to the public. The McHenry County e-Newsletter is an electronic newsletter published monthly. This newsletter includes County construction transportation projects, Department of Health activities, and Water Resources news. The County is proactive in promoting projects and water quality issues through Facebook and Twitter as well. The articles for 2016/2017 are in Appendix 5.5.

3.A.4 Community Event

Although this task is not included in the current NOI and annual year-end report, the Water Resources Division staff have been involved in multiple community events throughout the year. When possible, the County attends and/or sponsors outreach events and scheduled meetings with the general public. These events are held on an as-needed or as-requested basis. Audiences may include the homeowners associations, lake associations, businesses, and neighborhood groups.

The Solid Waste Manager for McHenry County continually creates partnerships with local government agencies, businesses, organizations, institutions, and individuals to discuss, plan, and implement economically viable and environmentally sound solid waste disposal alternatives for McHenry County. The County's Environmental Health Educator regularly conducts presentations for school children, organizations, and individuals on a variety of Environmental Health topics including wastewater disposal, potable water, solid waste, and pollution prevention.

3.A.5 Classroom Education Material

Although this task is not included in the current NOI and annual year-end report, the McHenry County Schools Environmental Education Program (MCSEEP) has been involved in multiple classroom events throughout the year. MCSEEP teaches lesson plans to 2nd through 8th grade students on the importance of water. Additionally, they have lesson plans that address pollution prevention for K-12 grades.

The County will continue to coordinate with MCSEEP on additional lesson plans detailing pollution prevention and water protection for greater educational outreach.

3.A.6 Other Public Education

Periodically, the County hosts or co-hosts workshops for the general public that focus on specific stormwater topics. These workshops typically discuss stormwater topics currently of interest within the County. They offer the opportunity to share information and facilitate a collective focus on potential solutions to the challenges faced by the County, municipalities, and other stakeholders. The County publicizes these events at take-away racks and on the website.

The County's NPDES website includes stormwater quality specific elements www.co.mchenry.il.us/county-government/departments-j-z/planning-development/divisions/water-resources/npdes. The website contains stormwater information, brochures, articles, volunteer programs, all NPDES reports, other agency newsletters, and agency links.

The County will continue to research, compile and make available materials about the impacts of climate change on precipitation and stormwater runoff and the pollution prevention practices that can be used by private property owners, and an evaluation of the impacts of climate change on existing flood control techniques and practices used to achieve runoff volume reduction. A link to the USEPA's climate change website www.epa.gov/climatechange is included on the County's website.

Refer to Appendix 5.3 for a more detailed description of the type of information to be posted. The website is updated by MCDOT and Planning and Development staff and tracked for hits. A significant amount of information is made available through links to other educational and informational sites.

This SMPP, the NPDES NOI, all MCDOT construction NOIs, and any previous annual reports must be posted on the County's website. Each year's annual report must be posted on the County's NPDES website and submitted to the IEPA by the first day of June each year.

The Division of Water Resources page and MCDOT page are both linked to the NPDES page. Additionally, the Water Resources page contains information on pollution prevention, stormwater, groundwater, green infrastructure, and more. The web link is www.mchenryh2o.com.

3.A.6.a Storm Drain Stenciling & Markers

With the intent of assisting in educating the public about stormwater runoff pollution, the MCDOT incorporates the messages "Dump No Waste" and "Drains to Waterways" on all open lid inlet frames and grates, if there is not room for this message on the grate, a plaque is to be placed in the curb adjacent to the frame and grate. The specifications for these messages are required and found either in the special provisions or a general note in the plans itself.

In the future, the County will consider supporting the efforts of private entities to stencil or apply stickers to inlets, and their purchase of factory-stamped inlet grates in their own communities within McHenry County. These efforts may include applying messages at storm drain inlets.

3.A.6.b Household Hazardous Waste

The United States Environmental Protection Agency (USEPA) estimates that the average home can accumulate approximately 100 pounds of household hazardous waste (HHW) in the house, basement, and garage. Household hazardous waste can include oil-based paints, stains, solvents, used motor oil, pesticides, medication, and cleaning products. Improper disposal of HHW can be potentially harmful to human health and the environment.

McHenry County has participated in residential one-day HHW collections primarily funded by the Illinois Environmental Protection Agency; however, due to budgetary constraints, funding has been suspended at this time. The McHenry County College's Sustainability Center publishes a

Green Guide for McHenry County annually that identifies businesses and locations in the area that accept a variety of waste streams (i.e., used motor oil, electronics, etc.) for recycling. The Green Guide is also available on the county's NPDES webpage. Several Township offices in the county provide drop-off sites for their residents for paint, used motor oil, and electronics. One pharmaceutical retailer offers a mail-back program for unused pharmaceuticals to their customers and several local law enforcement agencies provide drop-off locations for disposal of expired, unused residential medications.

Several local law enforcement agencies participated in the Drug Enforcement Agency's National Take-Back Initiative for medication in 2013, 2014, 2015 and 2016. The events for this span collected an estimated 3329 pounds of expired/unwanted medications. The McHenry County Department of Health sponsored electronics collection events in 2013, 2014 and 2015 which resulted in the collection of approximately 215,102 pounds of electronics for recycling. The McHenry County Department of Health did not hold electronics collection in 2016 due to funding challenges. However, the McHenry County Department of Health maintains a battery collection program and has collected approximately 3 tons of batteries between 2013 and 2016. The McHenry County Department of Health also held tire collection events in 2013, 2014 and 2015 that together collected 303.40 tons of used/waste tires. In 2016, the Illinois EPA Region 2 Used Tire Program sponsored a special tire collection event for local units of government in McHenry County that collected 157.57 tons of used/waste tires. From 2013 through 2016, the special tire events collected a combined 460.97 tons of used/waste tires.

McHenry County does not have a permanent household hazardous waste (HHW) drop-off site. Residents are encouraged to utilize four (4) Illinois HHW facilities in the area as follows:

- Naperville Household Hazardous Waste Drop-Off : 156 Fort Hill Dr., Naperville – Phone: 630-420-6095
- Rock River Reclamation District: 3333 Kishwaukee, Rockford – Phone: 815-987-5570
- Household Chemicals and Computer Recycling Facility: 1150 N. Branch on Goose Island, Chicago – Phone: 312-744-7672
- The Solid Waste Agency for Lake County: 1311 N. Estes Street, Gurnee – Phone: 847-336-9340

Complaints of illicit discharges of hazardous waste are referred to the Illinois Environmental Protection Agency, which is the enforcement authority for hazardous waste issues in Illinois.

The Solid Waste Manager for McHenry County will continue to explore opportunities to increase residents' options for proper disposal of HHW.

3.A.6.c Maintenance of Onsite Wastewater Treatment Systems

The McHenry County Department of Health is the permitting and enforcement authority for onsite wastewater treatment systems throughout McHenry County. The county has a progressive and comprehensive Health Ordinance regulating the design, installation, and operation of onsite wastewater treatment systems. The Ordinance prohibits the discharge of any non-domestic, processing or industrial wastes into onsite wastewater treatment systems. Non-domestic

wastewater must be discharged into a special waste holding tank or a municipal sanitary sewer. The Ordinance does not mandate specific maintenance for all systems; however, the Ordinance does require annual registration and inspection of special waste holding tanks and aeration units serving non-residential properties. The Ordinance also requires that owners of aeration units maintain service contracts with qualified contractors.

Department of Health staff responds to all complaints of malfunctioning onsite wastewater treatment systems. Complaints may be submitted in person, via telephone, or via email (www.mcdh.info). This is a high priority response for the Department of Health. The Department of Health also utilizes an answering service so that key staff can be reached 24 hours a day, seven days a week for emergency situations. When violations are confirmed, property owners receive a formal Notice of Violation. When voluntary compliance cannot be achieved, the Department of Health pursues legal enforcement including court appearances for Ordinance violation and/or injunctive relief. On multiple occasions, in cases of economic hardship, the McHenry County Housing Authority has provided financial assistance for repair or replacement of malfunctioning onsite wastewater treatment systems.

A variety of educational materials are available for residents regarding the proper operation and maintenance of onsite wastewater treatment systems. Brochures are available at the Department offices and also on the Department's webpage: www.mcdh.info. Residents may request a packet of materials specifically related to the proper maintenance of onsite systems. Staff in the Private Sewage Program also spend considerable time providing one-on-one consultations with property owners regarding the operation and maintenance of onsite systems. The Environmental Health Educator and Private Sewage Program Coordinator also provide presentations to homeowners associations, realtors, individuals, and students upon request.

3.A.6.d Vehicle Fluid Maintenance

Dumping of automotive fluids into storm drains can cause major water quality problems since only a few quarts of oil or a few gallons of antifreeze can severely degrade a small stream. Dumping delivers hydrocarbons, oil and grease, metals, xylene, and other pollutants to streams, which can be toxic during dry-weather conditions when existing flow cannot dilute these discharges. The major culprit has been the backyard mechanic who changes his or her own automotive fluids. The public is encouraged to use best management practices in changing fluids and vehicle maintenance through the following:

- Outreach articles and brochures on the County website;
- Referencing BMPs included in the annual Green Guide provided by MCC and the Northwest Herald;
- Outreach materials distributed at auto parts store and service stations;
- Community oil recycling centers;
- Directories of used oil collection stations;
- Pollution hotlines; and
- Fines and other enforcement actions.

3.A.6.e Car Washing

Car washing is a common neighborhood behavior that can produce transitory discharges of sediment, nutrients, and other pollutants to the curb, and ultimately the storm drain. The County supports the innovative outreach tools to promote environmentally safe car washing that municipalities use, including:

- Media campaigns;
- Brochures promoting nozzles with shut-off valves;
- Storm drain plug and wet vac provisions for charity car wash events;
- Water bill inserts promoting environmentally safe car washing products; and
- Discounted tickets for use at commercial car washes.

Non-domestic waste may enter into storm drains and the storm drain system as a result of outdoor rinsing and cleanup. Outdoor commercial vehicle washing activities require an NPDES permit. The desired pollution prevention methods should include purchasing less toxic products that will be used for their intended purpose, using products per label instructions, and may include the installation of a 100% recycling car wash unit or if community sewer is not available and accessible to the property, the installation of a permitted special waste holding tank meeting all requirements of Article X of the McHenry County Public Health Ordinance. Illicit non-domestic waste discharge issues will be referred to IEPA, which is the enforcement authority for these issues.

3.A.6.f Pool Dewatering

The County does not have an ordinance specifically addressing pool dewatering; however, the County makes the following recommendations:

Chlorinated water discharged to surface waters, roadways, or storm sewers has an adverse impact on local water quality. High concentrations of chlorine are toxic to wildlife, fish, and aquatic plants. The pH of the water should be between 6.5 and 8.5. Algaecides such as copper or silver can interrupt normal plant growth in receiving waters and should not be present when draining. Prepare appropriately before draining down a pool. It is recommended that one of the following measures be used:

1) De-chlorinate the water in the pool prior to draining through mechanical or chemical means; these types of products are available at local stores.

2) De-chlorinate the water in the pool through natural means. Pool water must sit at least 2 days with a reasonable amount of sun, after the addition of chlorine or bromine. It is recommended that the chlorine level be tested after 2 days to ensure that concentrations are at a safe level (below 0.1 mg/L).

3) Drain the pool slowly over a several day period across the lawn; or drain directly into the sanitary sewer using the following additional guidelines:
   a) Avoid discharging suspended particles (e.g., foreign objects blown into the pool like leaves, seedlings, twigs, etc.) with pool water.
   b) When draining your pool, do not discharge directly onto other private properties or into public rights-of-way, including storm sewer inlets.

A Pool Dewatering Fact Sheet has been prepared by the County and is available to the public (See Appendix 5.3).

3.B Public Involvement/Participation

The public involvement and participation program allows input from citizens during the development and implementation of the SMPP. The SMPP should be evaluated annually. Major highlights and deficiencies should be noted annually and the plan revised accordingly on a minimum 5-year basis, or as necessary.

3.B.1 Public Panel

Although this task is not included in the current NOI and annual year-end report, the annual NPDES permit, NOI, and SMPP are available on the Department of Planning and Development and MCDOT NPDES website for the public's review.

3.B.2 Educational Volunteer

The McHenry County Adopt-A-Highway Program (www.co.mchenry.il.us/county-government/departments-j-z/transportation/adopt-a-highway) is a volunteer effort directed at trash collection along sections of County highways. Volunteer groups adopt ½ to two mile sections of highway for a two-year period. As of May 1, 2017, there were 162 active volunteer groups covering at least 159 of the 213 adoptable centerline miles, resulting in 75% of MCDOT adoptable miles being maintained. Participation meets the Program Policy and Safety Guidelines established by IDOT in a separate document. This program is a qualifying local program (QLP) for this minimum control measure.

3.B.3 Stakeholder Meeting

The County continues to participate in Watershed events and meetings sponsored by outside organizations. Through the McHenry County Stormwater Management Ordinance, the County has adopted local Watershed Plans that encompass areas within the county. In the future, the County may implement relevant sections from the plans into the countywide ordinances. Most of the Watershed Plans meet the USEPA guidance criteria for the nine minimum elements that qualify a plan as a "watershed-based plan".

The County presents each year's annual report to the Planning, Environment and Development Committee, which is comprised of seven County Board members, during an open meeting and provides for input from the public as to the adequacy of the permittee's MS4 program. Comments are evaluated for inclusion and incorporated into the next revision of the SMPP as appropriate.

3.B.4 Public Hearing

Although this task is not included in the current NOI and annual year-end report, the County may consider instituting public hearings for NPDES-related issues in the future.

3.B.5 Volunteer Monitoring

The McHenry County Adopt-A-Highway Program volunteers report any pollution violations or concerns that they observe during trash pickups. Concerns are transmitted to the planning liaison or maintenance supervisor of MCDOT who then further sends information to the NPDES Coordinator for follow-up. During Year 14 no reports were received from program volunteers. This program is a QLP for Minimum Control Measure 3.B.

3.B.6 Program Involvement

The McHenry County Adopt-A-Highway program is used to fulfill this minimum control measure. This program has been in place and sponsored by MCDOT since 2004 and has been trending in a positive direction for more volunteer action and lane mile coverage per the MCDOT planning liaison who coordinates this program.

3.B.7 Other Public Involvement

The goal of this minimum control measure is to provide active citizen participation in detection of illicit discharges to the storm sewer system and problems with drainage infrastructure. The MCDOT uses CarteGraph software to improve the tracking, record keeping, and locating of citizen complaints. When phone calls to (815) 334-4960 and faxes to (815) 334-4989 or emails to MCDOT@co.mchenry.il.us are received, they are turned into CarteGraph work requests which notifies by email the appropriate maintenance, drainage, or construction personnel. General program related calls are directed to the NPDES Coordinator, or designee. Construction activity-related telephone calls are directed to the MCDOT Construction Manager, or designee. Illicit discharge, storm sewer, or other related stormwater runoff concerns are directed to the MCDOT Drainage Engineer and/or the McHenry County Department of Health. The County maintains a website that provides contact information.

The McHenry County Department of Health responds to complaints of illicit discharges. Complaints may be submitted in person, via telephone to (815) 334-4585, or via e-mail to Health@co.mchenry.il.us. This is a high priority response for the Department of Health. The Department of Health also utilizes an answering service so that key staff can be reached 24 hours a day, seven days a week for emergency situations. Complaints of illicit discharges that are outside the authority of the Department of Health are referred to the Illinois Environmental Protection Agency for action and follow up. The NPDES Coordinators should contact and coordinate with MCDOT and MCDOH all reported incidents for the permit year and determine if additional outreach is necessary.

This set of procedures is a QLP for Minimum Control Measure B.7.

3.B.7.a Environmental Justice Areas

Environmental justice (EJ) is 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. The EPA has this goal for all communities and persons across this nation. It will be achieved when everyone enjoys:

- The same degree of protection from environmental and health hazards; and
- Equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

Potential EJ communities are identified based on IEPA guidance to include communities 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 statewide average but greater than the statewide average and that 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. The following web application is another resource that can be used to determine if an area would qualify for consideration as an EJ community. ejscreen.epa.gov/mapper/index.html. Additional information on EJ concerns may be found at www.epa.gov/environmentaljustice.

The County has not identified any environmental justice areas within the jurisdictional area; therefore, no further reporting is required.

3.C Illicit Discharge Detection and Elimination[1]

Currently, illicit discharges (defined in 40 CFR 122.26(B)(2)) contribute considerable pollutant loads to receiving waters. There are two primary situations that constitute illicit discharges; these include non-stormwater runoff from contaminated sites and the deliberate discharge or dumping of non-stormwater. Illicit discharges can enter the storm sewer system as either an indirect or direct connection.

3.C.1 Sewer Map Preparation

The outfall inventory was completed by the McHenry County Division of Transportation (MCDOT). This investigation was completed with a visual survey conducted by the Drainage Engineer and notes compiled on aerial exhibits of the entire MCDOT right-of-way. The outfall inventory was supplemented by data provided by the McHenry County Soil and Water Conservation District. These two data sources were combined to create an ***Outfall Inventory Map***. This map is used in combination with the previously existing ***Storm Sewer Atlas*** to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the particular water bodies these flows may be affecting. The inlets and outfall locations have been numbered to facilitate detection and tracking of identified illicit discharges. The ***Storm Sewer Atlas*** and ***Outfall Inventory Map*** can be obtained in ArcMAP from McHenry County Division of Transportation and is referenced in Appendix 5.13. The outfall map should be revised annually to incorporate permitted outfalls associated with new developments. An outfall inventory should be updated as necessary (***Outfall Inventory Map***).

3.C.1.a Understanding Outfalls and Illicit Discharges

Understanding the potential locations and the nature of illicit discharges in urban watersheds is essential to find, fix, and prevent them.

3.C.1.b Identifying Outfalls and Receiving Waters

An Outfall (defined in 40 CFR 122.26(B)(9)) means a point source (as defined by 40 CFR 122.2) at the point where a municipal separate storm sewer discharges into a Waters of the United States "receiving water". Open conveyances connecting two municipal storm sewers, pipes, tunnels, or other conveyances which connect segments of the same stream or other Waters of the United States are not considered Outfalls. For the purposes of this manual the following definition shall be used:

> *Outfall:* Storm sewer outlet, or other open conveyance point discharge location, that discharges into a Waters of the U.S. receiving water or another MS4.

[1] Section 3.C is a revision of the Lake Michigan Watershed Stormwater Outfall Screening Program Training Program (April 1994 by SMC), and incorporates material from the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments (October 2004 by the Center for Watershed Protection and Robert Pitt, University of Alabama).

Regulated systems include the conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, gutters, ditches, swales, manmade channels, or storm sewers. High priority outfalls are defined, for the purpose of implementing this SMPP, as those that discharge into or from areas of high potential for contamination. To date 74 outfalls have been identified through visual inspections by the County. Additionally, 21 ponds or detention/retention facilities have also been identified. Of these outfalls or water features, 14 have been classified as high priority areas to be inspected annually. See Appendix 5.6 for a complete list of outfalls and those identified as high priority outfalls.

3.C.2 Regulatory Control Program

In McHenry County, the McHenry County Department of Health investigates complaints of illicit discharges under the authority of the McHenry County Public Health Ordinance. Complaints of illicit discharges that are outside the authority of the Department of Health are referred to the Illinois Environmental Protection Agency for action and follow up. McHenry County Planning and Development maintains a suite of codes and ordinances with staff and an Enforcement Officer to investigate possible illegal discharges in unincorporated areas of McHenry County. State and local law effectively prohibit through regulatory mechanism all non-stormwater discharges into the County's area covered by the MS4 permit. These regulatory controls are McHenry County's qualifying local program for fulfilling this minimum control measure.

3.C.2.a Regulatory Authority

Effective implementation of an Illicit Discharge Detection and Elimination (IDDE) program requires adequate legal authority to remove illicit discharges and prohibit future illicit discharges. State and local law effectively prohibit all non-stormwater discharges into the County's MS4. The McHenry County Public Health Ordinance prohibits the discharge of non-domestic waste into an onsite wastewater treatment system or onto the ground surface. The IEPA has regulatory authority to control pollutant discharges and can take the necessary steps to correct or remove an inappropriate discharge over and above MS4 jurisdiction.

3.C.2.b Illicit Discharge Ordinance

At this point in time, the County regulates illicit discharges utilizing different mechanisms.

3.C.3 Detection/Elimination Prioritization Plan

The McHenry County Department of Health receives complaints of suspected illicit discharges countywide. If determined to be an issue, the responsible party or property owner will hire an environmental engineering consultant to perform testing and/or enforce property owner responsibility and referring the issue to the appropriate agency (i.e., IEPA) for follow-up and resolution.

McHenry County Division of Transportation employees conduct visual outfall screenings to minimize and eliminate illicit discharges in the County right-of-way according to the established guidelines below. These guidelines are McHenry County's qualifying local program for fulfilling this minimum control measure.

3.C.3.a Program Planning

The program planning component is primarily office work related to assembling the necessary information and equipment for efficiently conducting outfall screening activities. This component of the program addresses the following issues (see **Figure 3**).

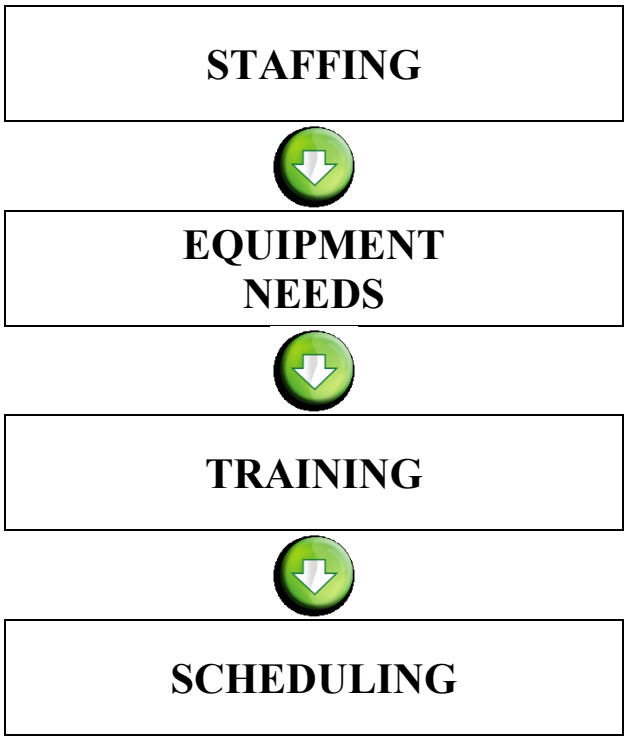


Figure 3: Program Elements

STAFFING

Personnel for an outfall inspection screening program are required for program administration, effort for conducting the outfall screening, and any follow-up investigations. Typically, a person with a camera is required for the outfall screening and follow-up portions of the program. Based on the number of identified outfalls and program goals, it is anticipated that McHenry County personnel will be required to perform inspections as specified in the NOI.

EQUIPMENT NEEDS

General field equipment for outfall screening are required for IDDE programs. The method of collecting and managing inspection screening data is driven by available technology. Inspection personnel carry basic safety items, such as cell phones, cameras, and first aid kits, along with the inspection forms.

TRAINING

Inspection personnel should have attended the culvert inspection seminar offered through IDOT's T^2 program to be able to identify stormwater outfalls. Review of the ***Stormwater Outfall Inspection Form*** (**Appendix 5.6**) should be accomplished before going into the field for adequate preparation.

SCHEDULING

Pre-screening is on-going, in coordination with the outfall inventory. High priority dry weather flow locations were identified in 2016, in accordance with the new ILR40 permit. High priority locations are identified in Appendix 5.6. High priority outfalls will be inspected annually and all remaining outfalls will be inspected on a rotating basis over five-year intervals.

Scheduling for pre-screening or outfall inspections is dependent on staff availability and weather. Pre-screening generally takes place during the late summer or fall months, ideally in August, September, or October, although other summer or fall months may be acceptable, depending on weather conditions. This time period is generally warm, which improves field efficiency as well as reliability and consistency of field testing. This time period is also more likely to have extended dry periods with little or no precipitation, which is required for the inspection activities.

3.C.3.b Outfall Inspection Procedure

OUTFALL INSPECTION *SETUP AND PRECAUTIONS*

Of particular concern in daily setup is whether any safety issues will be associated with the day's screening activities. For example, does traffic need to be controlled or is access to the outfall difficult. Before leaving an outfall inspection location, field crews must ensure that all necessary equipment is available, operable, and calibrated (as appropriate).

Safety is the primary consideration while inspecting outfalls. In general, the rule "*if in doubt, **don't**"* is followed. A first aid kit is included in each vehicle to treat minor injuries. Obtain medical help for major injuries as soon as possible. Report all injuries, minor and major, to appropriate persons.

ACCESS TO PRIVATE PROPERTY

If an illicit discharge is reported on private property and poses a health concern, the McHenry County Department of Health will follow internal procedures to investigate the complaint, then refer to the appropriate agency for assistance. The McHenry County Division of Transportation only inspects outfall points within County rights-of-way.

TRAFFIC

All traffic control measures are to be in accordance with the requirements of the *Manual on Uniform Traffic Control Devices* and other internal Policies and Procedures as set forth by the MCDOT.

In general, the following additional policies are applicable. County personnel generally work on streets only during the hours of 7 a.m. to 4 p.m. except in emergency situations. All field crews are required to wear personal protection equipment (PPE) in accordance with Standard Operating Procedures set forth by the MCDOT Procedures Manual.

CONFINED SPACE ENTRY

Confined space entry for this program would include climbing into or inserting one's head into a pipe, manhole, or catch basin. In general, do not cross the vertical plane defining an outfall pipe or the horizontal plane defining a manhole, unless properly prepared for confined space entry. **IN NO CASE SHALL FIELD CREW MEMBERS ATTEMPT TO ENTER CONFINED SPACES.**

OTHER HAZARDS

Table 1: Other Outfall Inspection Hazards

Hazard	Prevention
Access	Avoid steep slopes, dense brush and deep water. Report unsafe locations and move on to next location.
Stuck	Avoid wading where bottom sediments are easily disturbed or depths are unknown.
Strong Gas/Solvent Odor	Do not select manhole for sampling.
Bodily Harm From Manhole Covers	Use manhole hook and watch for pinch points.
Slip	Proper foot gear and use of rope if warranted.
Falls	Use extended sample collection device; don't cross horizontal or vertical plane at end of outfall.
Heat and Dehydration	Adequate water intake; avoid excessive exertion on hot days.
Sunburn	Sunscreen and appropriate clothing.
Poisonous Plants/Animals	Identify and avoid.
Vicious Dogs	Avoid; use animal repellent if necessary.
Water Bodies	Flotation devices.
Ticks	Check entire body at end of each day.
Mosquitoes	Apply repellent.

OUTFALL INSPECTION

An outfall inspection is required for outfalls on a routine basis. Annual inspection of all high priority outfalls, as identified in Chapter 3.C.3.a, is required. Upon arriving at an outfall, the inspection personnel inspect the outfall by approaching the outfall on foot to a proximity that allows visual observations to be made.

Outfalls are assessed to determine which one of the three following conditions applies:

(1) The outfall is dry or damp with no observed flow;
(2) Flowing discharges are observed from the outfall; or
(3) The outfall is partially or completely submerged with no observed flow or is inaccessible.

Scenario 1: No Observed Flow. Under Scenario 1, the field crew should photograph the outfall and complete the ***Stormwater Outfall Inspection Form*** (**Appendix 5.6**).

Scenario 2: Observed Flow. Under Scenario 2, the field crew photographs the outfall and completes the ***Stormwater Outfall Inspection Form*** (**Appendix 5.6**). If a flow from the outlet is a suspected illicit discharge, the IEPA is notified for further investigation, testing, and resolution.

Scenario 3: Submerged or Inaccessible Outfall. Under Scenario 3, if standing water is present in an outfall or if it is inaccessible, then complete the appropriate sections of the ***Stormwater Outfall Inspection Form*** (**Appendix 5.6**), with remarks in the last section of being submerged and to put on a follow up inspection list to be inspected during a drier period in the year. Otherwise, locate the next upstream access point and evaluate for illicit discharges.

Locating an upstream access point may be required if any of the following conditions exist at an outfall:

- The outfall discharge is submerged or partially submerged due to backwater conditions;
- Site access and safety considerations prevent visual inspection;

- The outfall is from a facility providing water quality treatment (for example, detention basin outlet); or
- Other special considerations.

Determine the upstream access point using the MCDOT's storm sewer atlas. Manholes, catch basins, or culvert crossings can be used for upstream access. Make reasonable efforts to locate upstream access points that are easily accessible and exhibit flow. If inaccessible, reschedule the outlet inspection during a drier period in the year.

 Submerged: More than ½ below water	 Partially submerged: Bottom is below water	 Fully submerged: Can't see outfall
 Outfall fully submerged by debris	 Fully submerged from downstream trees trapping debris	 Partially submerged by leaf debris "back water"
 Trickle Flow: Very narrow stream of water	 Moderate Flow: Steady stream, but very shallow depth	 Significant flow (Source is a fire hydrant discharge)

Figure 4: Characterizing Submersion and Flow
Center for Watershed Protection

OUTFALL ASSESSMENT AND DOCUMENTATION

Complete the ***Stormwater Outfall Inspection Form*** (**Appendix 5.6**) for all outfall inspections. All completed forms must be dated, legible, and contain accurate documentation of each outfall inspection. Include pictures in the file for the outlet for comparison. A separate data form must be completed for each outfall. It is recommended that non-smearing pens be used to complete the forms and that all data be objective and factual. Once completed, these data forms are considered accountable documents and are maintained as part of the MCDOT's files. In addition to standard information, the data form is used to record other information that is noted at the time the outfall inspection is conducted (e.g. observations of dead or dying plants, fish kills, algal blooms (excessive algae growth), construction activities, and other activities that might provide information regarding the potential for illicit connections or inappropriate discharges).

OFFICE CLOSEOUT

In the office, file copies of completed data forms with pictures. Also, update CarteGraph database with results from outfall screening. Schedule and plan the next screening activities.

3.C.3.c Follow Up Investigation and Program Evaluation

Follow up investigation is required for all outfalls with positive indicators for pollutant discharges. The outfall assessment results are reviewed to determine the magnitude of the dry-weather pollution problem and to determine the necessary steps to identify and remove the sources of any detected pollutants. **Figure 5** provides a flow chart to aid in follow up investigations of potential illicit discharges.

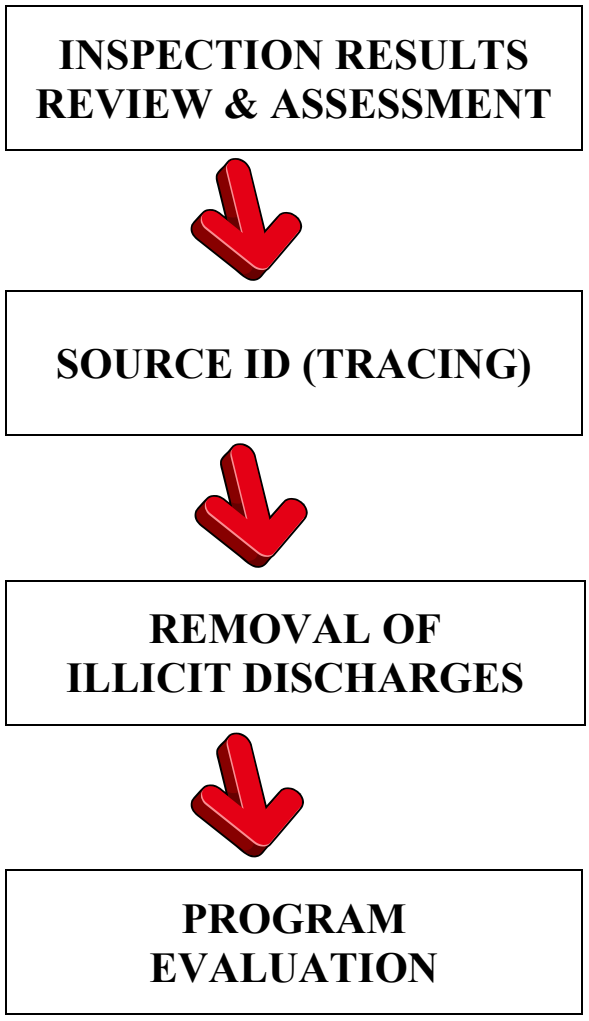


Figure 5: Follow Up Procedure

OUTFALL SCREENING RESULTS REVIEW AND ASSESSMENT

Detailed investigations of the storm sewer system may be required upstream of the outfalls to locate sources of illicit discharges or improper disposal. The need for detailed investigations is based on evaluation of the data from the initial outfall inspection. This element of the program serves to detect and remove pollutant sources. This is accomplished by reviewing the questionable ***Stormwater Outfall Inspection Form (*Appendix 5.6**) to determine if there are outfalls that require a follow up investigation, target sewer system areas for detailed investigation and then conducting intensive field investigations upstream of the polluted outfall to identify potential sources.

SOURCE IDENTIFICATION

Follow up investigation is required for all outfalls with positive indicators for pollutant discharges during the inspection efforts. The procedure for detailed storm sewer investigation and source identification has three major components: 1) Mapping and evaluation; 2) Storm sewer investigation; and 3) Tracing.

MAPPING AND EVALUATION

For each outfall to be investigated, a large-scale working map should be obtained (digitally or in paper form) that includes the entire upstream storm sewer network, outfall locations, and parcel boundaries indicated. This map product is based on information from the ***Storm Sewer Atlas*** and ***Outfall Inventory Map*** and can be obtained from the MCDOT. Land use information is evaluated to determine the types of residential, commercial, and industrial areas that might contribute the type of pollution identified at the outfall.

If the contributing area is determined to be non-residential, the available Industrial/Business information should also be reviewed. All business types with "Reportable Quantities" of specific materials are logged into CAMEO, a system of software applications used widely to plan for and respond to chemical emergencies, which is used by the McHenry County Emergency Management Agency.

Business types, at the time of the SMPP creation, include:

- Assembly
- Automotive
- Bank-Loans
- Car Wash
- Church
- Contractor
- Food Processing (Pet, Candy)
- Government/School
- Grocery Store
- Health Club/Gym
- Landscaping/Nursery

- Laundromat/Dry Cleaning
- Manufacturing
- Meat Packing
- Medical/Dental/Pharmaceutical
- Office
- Printing/Photography
- Recreations/Park District
- Residential (Single and Multi-Family)
- Restaurants/Bars
- Retail
- Salon/Barber Shop
- Utility
- Warehouse/Distribution

Make attempts to match detected indicators with upstream activities.

STORM SEWER INVESTIGATION

After conducting the mapping evaluation, a manhole-by-manhole inspection is conducted to pinpoint the location of the inappropriate discharge, into the storm sewer / conveyance system. This inspection requires a field crew to revisit the outfall where the polluted dry-weather discharge was detected. The field crew should be equipped with the same testing and safety equipment and follow similar procedures as used during the outfall inspection.

After confirming that dry-weather flow is present at the outfall, the field crew continues moving to the next upstream manhole or access point investigating for dry-weather flow. In cases where more than one source of dry-weather discharge enters a manhole, the field crew records this information on the screening form and then tracks each source separately. All sources are tracked upstream, manhole-by-manhole, until the dry-weather discharge is no longer detected. Finally, the last manhole where dry-weather flow is present is identified and potential sources to that manhole are accessed. This data is important for source identification.

The field crew should also determine whether there has been a significant change in the flow rate between manholes. If the flow rate appears to have changed between two manholes in the system, the illicit connection likely occurs between the two manholes. Changes in the concentration of pollutant parameters could also aid in confirming the presence of an illicit connection between the two manholes.

3.C.3.d Potential Sources of Illicit Discharges

Table 2 shows that direct connections to storm sewer systems most likely originate from commercial/industrial facilities. Thus, the focus on Chapter 3.C is on the identification of illicit discharges from commercial/industrial facilities.

Table 2: Potential Sources of Illicit Discharges to Storm Sewers

Potential Sources	Storm Sewer Entry		Flow Characteristics	
	Direct	Indirect	Continuous	Intermittent
Residential Sources				
Sanitary Wastewater	√	X	√	X
Septic Tank Effluent	-	√	√	X
Household Chemicals	X	√	-	√
Laundry Wastewater	√	-	-	√
Excess Landscaping Watering	-	√	-	√
Leaking Potable Water Pipes	-	√	√	-
Commercial Sources				
Gasoline Filling Stations	√	X	-	√
Vehicle Maint./Repair Facilities	√	X	-	√
Laundry Wastewater	√	-	√	X
Construction Site Dewatering	X	√	√	X
Sanitary Wastewater	√	X	√	X
Industrial Sources				
Leaking Tanks and Pipes	X	√	√	X
Misc. Process Waters	√	X	√	X

√: Most likely condition. X: May Occur -: Not very likely

Source: *Adapted From: USEPA. January 1993. Investigation of Inappropriate Pollutant Entries Into Storm Drainage Systems: A User's Guide. Cincinnati, Ohio.*

3.C.3.e USEPA Exclusions

It is noted that not all dry-weather flows are considered inappropriate discharges. Under certain conditions, the following discharges are not considered inappropriate by USEPA:

- Water line flushing
- Landscaping irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated groundwater infiltration
- Uncontaminated pumped groundwater
- Discharges from potable water sources
- Flows from foundation drains
- Air conditioning condensation
- Irrigation water
- Springs
- Water from crawl spaces

- Lawn watering
- Individual car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool water
- Street wash water

3.C.3.f Pollutant Indicators

PHYSICAL INDICATORS

Adapted from New Hampshire Estuaries Project and the IDDE Guidance Manual by the Center for Watershed Protection.

Odor

Water is a neutral medium and does not produce odor; however, most organic and some inorganic chemicals contribute odor to water. Odor in water may originate from municipal and industrial waste discharges, from natural sources such as decomposition of vegetative matter or from associated microbial activity.

Table 3: Odor or Potential Illicit Discharges (adapted from CWP)

Odor	**Possible Cause**
Sewage	Wastewater treatment facilities, domestic waste connected into storm drain, failing septic system.
Sulfide (rotten eggs)	Decaying organic waste from industries such as meat packers, dairies, and canneries.
Rancid/sour	Many chemicals, including pesticides and fertilizers, emit powerful odors that may produce irritation or stinging sensations.
Petroleum/gas	Industry associated with vehicle maintenance or petroleum product storage; gas stations.
Laundry	Laundromat, dry cleaning, household laundry.

Color

Color is a numeric computation of the color observed in a water quality sample, as measured in cobalt-platinum units. Both industrial liquid wastes and sewage tend to have elevated color values. Unfortunately, some "clean" flow types can also have high color values. A color value higher than 500 units may indicate an industrial discharge.

Table 4: Color of Potential Illicit Discharges (adapted from CWP)

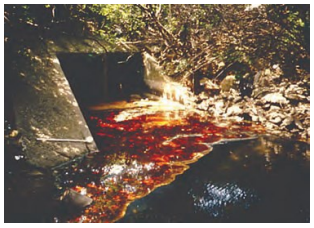
Water Color	Possible Cause	Images
Brown Water – water ranging in color from light-tea to chocolate milk; it may have a rotten egg odor.	Human causes may be eroded, disturbed soils from construction sites; animal enclosures; destabilized stream banks; and lake shore erosion due to boat traffic.	
Yellow –	Human causes may include textile facilities, chemical plants, or pollen.	
Gray Water – water appears milky and may have a rotten egg smell and/or soap odor. There may also be an appearance of cottony slime.	Human causes may be illicit connections of domestic wastewater; untreated septic system discharge; illegal boat discharge; and parking lot runoff.	
Green Water – ranging from blue-green to bright green color and may impart odor. Conditions typically occur from May to October.	Human causes may be over-fertilizing lawns; boat discharges; septic systems; agriculture operations; or discharging poorly treated wastewater.	
Orange/Red –	Human causes may include meat packing facilities or dyes.	
Green Flecks – resembling floating blue-green paint chips or grass clippings. These *Blooms* and are potentially toxic.	Human cause is excessive nutrients. Fertilizers used on lawns can contaminate surface and groundwater.	

Table 4 (continued)

Water Color	Possible Cause	Images
Green Hair-Like Strands – bright or dark green, resembling cotton candy and often in floating mats.	Human causes are excessive nutrients from fertilizers or failed on-shore septic systems.	
Multi-Color Water – various or uniform color, other than brown, green or gray. For rainbow sheen, see floatables.	Human causes include oil or hazardous waste spill; paint and paint equipment rinsed into storm drains or into failing septic systems.	

Turbidity

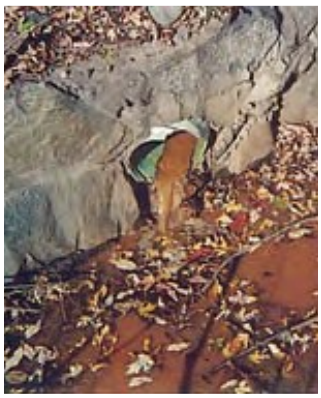
Turbidity is a measure of the clarity of water. Turbidity may be caused by many factors, including suspended matter such as clay, silt, or finely divided organic and inorganic matter. Turbidity is a measure of the optical properties that cause light to be scattered and not transmitted through a sample. The presence of turbidity is to be assessed by comparing the sample to a clean glass sample container with colorless distilled water.

Turbidity and color are related terms but are not the same. Remember, turbidity is a measure of how easily light can penetrate through the sample bottle, whereas color is defined by the tint or intensity of the color observed.

Figure 6: Turbidity Severity Examples
(adapted from CWP)


Turbidity
Severity 1


Turbidity
Severity 2


Turbidity
Severity 3

Floatables

The presence of sewage, floating scum, foam, oil sheen, or other materials can be obvious indicators of an illicit discharge. However, trash originating from areas adjacent to the outfall is described in this section.

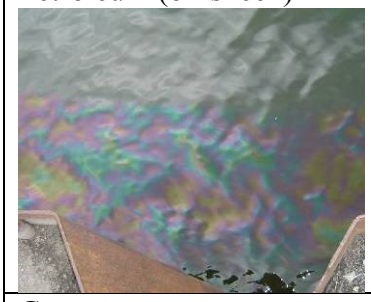
- If you think the floatable is sewage, you should automatically assign it a severity score of three, since no other source looks quite like it.
- Suds are rated based on their foaminess and staying power. A severity score of three is designated for thick foam that travels many feet before breaking up. Natural foam breaks apart easily, can be brown, black or yellowish and may smell fishy or musty.
- Surface oil sheens are ranked based on their thickness and coverage. In some cases, surface sheens may not be from oil discharges, but instead created by in-stream processes. A petroleum sheen does not break apart and quickly flows back together.

Figure 7: Natural Sheen versus Synthetic
(adapted from CWP)

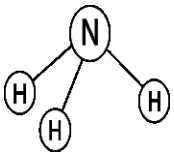
Sheen from natural bacteria forms a swirl-like film that cracks if disturbed

Synthetic oil forms a swirling pattern

Table 5: Floatables in Potential Illicit Discharges (adapted from CWP)

Floatables	
Sewage 	Human causes include connection of domestic wastewater; leaking sanitary sewers; or failing septic systems.
Suds and Foam 	Common human causes of unnatural foam include leaking sewer lines; boat discharges; improper sewer connections to storm sewers; or detergents from car washing activities.
Petroleum (oil sheen) 	Human causes may include a leaking underground storage tank or illegal dumping.
Grease 	Common human causes include overflow from sanitary systems (due to clogging from grease) or illegal dumping.

Ammonia

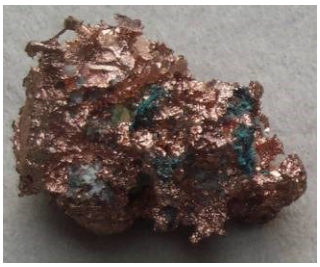


Ammonia is a good indicator of sewage, since its concentration is much higher there than in groundwater or tap water. High ammonia concentrations (>50 mg/L) may also indicate liquid wastes from some industrial sites. Ammonia is relatively simple and safe to analyze. Some challenges include the potential generation of wastes from non-human sources, such as pets or wildlife.

Chlorine

Chlorine is used throughout the country to disinfect tap water, except where private wells provide the water supply. Chlorine concentrations in tap water tend to be significantly higher than most other discharge types. Unfortunately, chlorine is extremely volatile and even moderate levels of organic materials can cause chlorine levels to drop below detection levels. Because chlorine is non-conservative, it is not a reliable indicator, although if very high chlorine levels are measured, it is a strong indication of a water line break, swimming pool discharge, or industrial discharge from a chlorine bleaching process.

Copper



Concentrations of copper in dry-weather flows can be a result of corrosion of water pipes or automotive sources (for example, radiators, brake lines, or electrical equipment). The occurrence of copper in dry-weather flows could also be caused by inappropriate discharges from facilities that either use or manufacture copper-based products. A copper value of >0.025 mg/L indicates an industrial discharge is present.

Industrial sources of copper include the following:

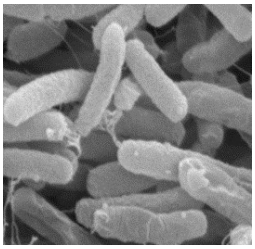
- Copper manufacturing (smelting)
- Copper metal processing/scrap remelting
- Metal plating
- Chemicals manufacturing
- Analytical laboratories
- Power plants
- Electronics
- Wood preserving
- Copper wire production

In each of these industries, wastes containing copper would normally be discharged to a treatment facility. Sludge from the waste treatment facility, whether on-site (including lagoons) or publicly operated treatment facilities, would contain copper. If the sludge (or the treatment process) is not managed properly, copper could enter the storm sewer system.

Detergents

Most illicit discharges have elevated concentration of detergents. Sewage and washwater discharges contain detergents used to clean clothes or dishes, whereas liquid wastes contain detergents from industrial or commercial cleansers. The nearly universal presence of detergents in illicit discharges, combined with their absence in natural waters or tap water, makes them an excellent indicator. Research has revealed three indicator parameters that measure the level of detergent or its components – surfactants, fluorescence, and surface tension. Surfactants have been the most widely applied and transferable of the three indicators. Fluorescence and surface tension show promise, but only limited field testing has been performed on these more experimental parameters; therefore, these are not tested. Refer to the *Surfactants* description.

E. coli, Enterococci and Total Coliform

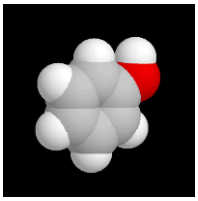


Each of these bacteria is found at very high concentrations in sewage compared to other flow types and is a good indicator of sewage or seepage discharges, unless pet or wildlife sources exist in the subwatershed. Overall, bacteria are good supplemental indicators and can be used to find "problem" streams or outfalls that exceed public health standards.

Fluoride

Fluoride, at a concentration of two parts per million, is added to drinking water supplies in most communities to improve dental health. Consequently, fluoride is an excellent conservative indicator of tap water discharges or leaks from water supply pipes that end up in the storm drain. Fluoride is obviously not a good indicator in communities that do not fluorinate drinking water, or where individual wells provide drinking water. Flouride levels greater than 0.6 mg/L indicates a potable water source is connected to the stormwater system.

Phenol



Phenol is a very commonly occurring chemical and can be found in foods, medicines, and cleaning products, as well as industrial products and by-products. Generally, the appearance of phenols in stormwater would indicate a misconnected industrial sewer to a storm drain or ditch. Exceptions would include runoff from treated wood storage yards (for example, treated lumber and telephone poles) and improper disposal (flash dumping) of cleaning products. A phenol value greater than 0.1 mg/L indicates an illicit discharge is present.

Industrial sources of phenol include the following:

- Chemical manufacturing (organic)
- Textile manufacturing
- Paint and coatings manufacturing
- Metal coating
- Resin manufacturing
- Tire manufacturing
- Plastics fabricating
- Electronics
- Oil refining and re-refining
- Naval stores (turpentine and other wood treatment chemicals)
- Pharmaceutical manufacturing
- Paint stripping (for example, automotive and aircraft)
- Military installations (rework and repair facilities)
- Coke manufacturing
- Iron production
- Ferro-alloy manufacturing

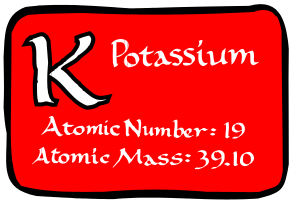
Other sources of phenol include improper handling and disposal of cleaning compounds by institutions such as hospitals and nursing homes.

pH

Potential ID Range: <6.5 and > 8.5

Most discharge flow types are neutral, having a pH value around 7, although groundwater concentrations can be somewhat variable. pH is a reasonably good indicator for liquid wastes from industries, which can have very high or low pH (ranging from 3 to 12). The pH of residential wash water tends to be rather basic (pH of 8 or 9). The pH of a discharge is very simple to monitor in the field with low cost test strips or probes. Although pH data is often not conclusive by itself, it can identify problem outfalls that merit follow up investigations using more effective indicators.

Potassium



Potassium is found at relatively high concentrations in sewage and extremely high concentrations in many industrial process waters. Consequently, potassium can act as a good first screen for industrial wastes, and can also be used in combination with ammonia to distinguish wash waters from sanitary wastes. An ammonium to potassium ratio of >1 or <1 indicates waste water or wash water discharge, respectively. A potassium value of >20 mg/L is a good indicator for industrial discharges.

Surfactants

Surfactants are the active ingredients in most commercial detergents and are typically measured as Methyl Blue Active Substances (or MBAS). They are a synthetic replacement for soap, which builds up deposits on clothing over time. Since surfactants are not found in nature, but are always present in detergents, they are excellent indicators of sewage and wash waters. The presence of surfactants in cleansers, emulsifiers, and lubricants also makes them an excellent indicator of industrial or commercial liquid wastes. A surfactant value of >0.25 mg/L within residential areas indicates that either a sewage or wash water is present in the stormwater; a value of >5 mg/L within non-residential areas indicates that there is an industrial discharge (refer to Table 46 from the *Illicit Discharge Detection and Elimination Manual* by the Center for Watershed Protection for use in determining industrial flow types).

3.C.3.g Indirect Connection Program

Indirect connections are subtle connections, such as dumping or spillage of materials into storm sewer drains. Flash dumping is a common type of indirect connection. Generally, indirect modes of entry produce intermittent or transitory discharges, with the exception of groundwater seepage. There are five main modes of indirect entry for discharges.

GROUNDWATER SEEPAGE

Seepage discharges can be either continuous or intermittent, depending on the depth of the water table and the season. Groundwater seepage usually consists of relatively clean water that is not an illicit discharge by itself, but can mask other illicit discharges. If storm drains are located close to sanitary sewers, groundwater seepage may intermingle with diluted sewage. Addressing seepage that is observed during the outfall screening process is described in more detail in this Chapter.

SPILLS

These transitory discharges occur when a spill travels across an impervious surface and enters a storm drain inlet. Spills can occur at many industrial, commercial, and transport-related sites. A very common example is an oil or gas spill from an accident that then travels across the road and into the storm drain system. The Spill Response Plan is described in Chapter 3.F.6.c.

DUMPING

Dumping a liquid into a storm drain inlet:
This type of transitory discharge is created when liquid wastes such as oil, grease, paint, solvents, and various automotive fluids are dumped into the storm drain. Liquid dumping occurs intermittently at sites that improperly dispose of rinse water and wash water during maintenance and cleanup operations. A common example is cleaning deep fryers in the parking lot of fast food operations. The Storm Drain Stenciling, Household Hazardous Wastes, and Vehicle Fluid Maintenance are designed to minimize dumping; these programs are described in Chapter 3.6.a, b, d, and f. Additionally, complaints can be made to the Department of Health.

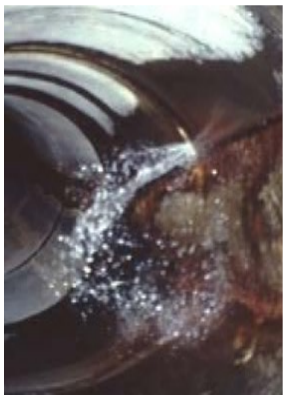
OUTDOOR WASHING ACTIVITIES

Outdoor washing may or may not be an illicit discharge, depending on the nature of the generating site that produces the wash water. For example, hosing off individual sidewalks and driveways may not generate significant flows or pollutant loads. On the other hand, routine washing of fueling areas, outdoor storage areas, parking lots (power washing), and construction equipment cleanouts may result in unacceptable pollutant loads. Individual washing activities are addressed through the Public Education and Outreach Program in Chapter 3.A.6.d whereas observed/documented routine washing activities should be addressed through the Removal of Illicit Discharges Procedure in Chapter 3.C.5.a.

NON-TARGET IRRIGATION FROM LANDSCAPING OR LAWNS

Irrigation can produce intermittent discharges from over-watering or misdirected sprinklers that send tap water over impervious areas. In some instances, non-target irrigation can produce unacceptable loads of nutrients, organic matter, or pesticides. The most common example is a discharge from commercial landscaping areas adjacent to parking lots connected to the storm drain system. This type of discharge is addressed by the Public Education and Outreach Program in Chapter 3.A.

3.C.3.h Direct Connection Illicit Discharge Program



Direct connections enter through direct piping connections to the storm sewer system, and since direct connections exist regardless of whether or not a stormwater event (e.g., rain or melting snow) is occurring, they are most easily detected during dry-weather periods. Inspection of stormwater outfalls during dry-weather conditions reveals whether non-stormwater flows exist. If non-stormwater flows are observed, they can be screened and tested to determine whether pollutants are present. If the presence of pollutants is indicated, the detective work of identifying the source of the discharge can begin. Once the source is identified, it can then be corrected. A direct connection illicit discharge program consists of three principal components: 1) Program planning; 2) Outfall screening; and 3) Follow up investigation and program evaluation.

1. ***Program Planning*** involves the office work, planning, and organization required to conduct the subsequent outfall screening and follow up investigative activities of the program. Program planning identifies the regulatory authority to remove directly connected illicit

discharges and the identification of the outfalls and receiving waters in the municipality (both discussed earlier in this chapter). Program planning for the direct connection portion of the overall program also includes the identification of the staffing and equipment needed to conduct the outfall screening, and scheduling of the outfall screening activities (Chapter 3.C.3).

2. ***Outfall Screening*** consists of pre-screening to determine whether dry-weather flows are present and outfall inspection to determine whether pollutants are present in any observed dry-weather flows (Chapter 3.C.3.b).

3. ***Follow Up Investigation and Program Evaluation*** are the steps necessary to determine the source of any identified pollutant flows and eliminate them. The major follow up investigation and program evaluation components include:

    - Reviewing and assessing outfall inspection results;
    - Internal coordination;
    - Conducting detailed storm sewer investigations to identify pollutant sources (*tracing*); and
    - Exercising the appropriate legal means to achieve enforcement of the program objective (*removal of pollutants at the source)*, and evaluating the program to determine whether subsequent screening activities are necessary.

3.C.4 Illicit Discharge Tracing Procedures

The McHenry County Division of Transportation uses the tracing methods below as the qualifying local program (QLP) for fulfilling Minimum Control Measure C.4.

3.C.4.a Tracing

Once the manhole inspection has identified the reach area, between two manholes suspected of containing an inappropriate discharge, testing may be necessary. If there is only one possible source to this section of the storm sewer system in the area, source identification and follow-up for corrective action is straightforward. Multiple sources, or non-definitive sources, may require additional evaluation and testing in order to identify the contributing source. Potential testing methods include dye testing, smoke testing, and/or remote video inspections. Once identified, clearly log the contributing source.

3.C.5 Illicit Source Removal Procedures

The McHenry County Department of Health (MCDH) is responsible for overseeing this process per the steps below. These steps are the qualifying local program for fulfilling Minimum Control Measure C – IDDE.

3.C.5.a Removal of Illicit Discharges

Removal of illicit discharge connections is required at all identified contributing sources. Six steps are taken to definitively identify and remove an inappropriate discharge to the storm sewer system. These steps are as follows:

Step 1: Complaint is evaluated and forwarded to the appropriate agency for further investigation. If the discharge is septic in nature, it is forwarded to the MCDH. Non-septic system discharges are not regulated by the MCDH. These types of suspected illegal discharges are address by notifying the regional IEPA office and coordinating with their investigation.

Step 2: MCDH inspects the problem location.

Step 3: MCDH conducts dye testing and/or collect water samples for analysis.

Step 4: Conduct an internal meeting with appropriate personnel to discuss inspection and testing results and remedial procedures. Determine if discharge is illicit in nature. *If not, no further action required.* If the discharge is illegal, the MCDH shall send a 10-day notification letter to the owner/operator of the property/site suspected of discharging a pollutant to correct the deficiency.

Step 5: A follow up inspection is conducted. *If the deficiency is corrected, no further action is required.* If not, the MCDH sends a final notification to correct the deficiency with a timely manner.

Step 6: Another follow up inspection is conducted. *If the deficiency is corrected, no further action is required*. If the owner remains in non-compliance the case is then turned over to the State's Attorney, who then pursues legal action to enforce remediation of the illegal discharge.

3.C.6 Program Evaluation and Assessment

Although this task is not included in the current NOI and annual year-end report, the County intends to incorporate this step into the future NPDES permit program.

3.C.6.a Program Evaluation

Review the results of the screening program to examine whether any trends can be identified that relate the incidence of dry-weather flow observations to the age or land use of a developed area. Experience gained from the USEPA NPDES program indicates a lower chance of observing polluted dry-weather flows in residential and newer development areas, while older and industrial land use areas having a higher incidence of observed dry-weather flows. See **Table 6** for areas that may be more likely to exhibit dry-weather flows. Examine the screening results to determine whether any such obvious conclusions can be made. If so, these conclusions may guide future outfall screening activities.

Outfalls with positive indicators of potential pollution are investigated to identify upstream pollutant sources. Identified illicit direct connections must be eliminated. However, new sources may appear in the future as a result of mistaken cross-connections from redevelopment, new development, or remodeling. Indirect or subtle discharges such as flash dumping are difficult to trace to their sources and can only be remedied through public education and reporting. Therefore, it is expected that to some degree they will continue, although at a reduced magnitude and frequency. Although the outfall screening program will be successful in identifying and eliminating most pollutants in dry-weather discharges, the continued existence of dry-weather flows and associated pollutants will require an ongoing commitment to continue the outfall screening program.

The annual inspection screening will determine the effectiveness of the program on a long-term basis and show ongoing improvement through a reduced number of outfalls having positive indicators of potential pollutants. It is logical to assume that after several years of annual screening, the majority of the dry-weather pollution sources will be eliminated.

While this minimum control measure was never specified in the County's NOI, it is an integral part of the IDDE screening process from above.

Table 6: NPDES-Identified Industrial Facilities

SIC Code	Description
	Facilities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards that are exempted).
1000-1400	Mineral industry, including active and inactive mining operations, with exceptions, and certain oil and gas exploration, production, processing, or treatment operations or transmission facilities.
2400	Lumber and wood products except furniture (except 2434-wood kitchen cabinets)
2600	Paper and allied products (except 2650-paperboard containers and boxes from purchased paperboard and 2670-converted paper and paperboard products)
2800	Chemicals and allied products (except 2830-drugs)
2900	Petroleum refining and related industries (except discharges subject to 40 CFR 419)
3110	Leather tanning and finishing
3200	Stone, clay, glass, and concrete products (except discharges subject to 40 CFR 419)
3300	Primary metal industries
3441	Fabricated structural metal
3730	Ship and boat building and repair
	Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA
	Landfills, land application sites, and open dumps that receive or have received any industrial wastes, including those that are subject to regulation under Subtitle D of RCRA
	Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards, including, but not limited to, those classified as SIC codes 5015 (used motor vehicle parts) and 5093 (scrap and waste materials).
	Stream electric power generating facilities including coal handling sites
	Transportation facilities with vehicle maintenance shops, equipment cleaning operations, or airport deicing operations (except facilities with SIC codes 4221 through 4225) (only those portions of the station that are either involved in vehicle maintenance including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or that are otherwise identified as an industrial station.
	Construction activity including clearing, grading, and excavation activities except: operations that result in the disturbance of less than 5 acres of total land that are not part of a larger common plan of development or sale.
THE FOLLOWING CODES REQUIRE A NPDES PERMIT IF CERTAIN ACTIVITIES ARE EXPOSED TO SW	
2000	Food and kindred products manufacturing or processing
2100	Tobacco products
2200	Textile mill products
2300	Apparel and other finished products made from fabrics and similar materials
2434	Wood kitchen cabinets
2500	Furniture and fixtures
2650	Paperboard containers and boxes
2670	Converted paper and paperboard products
2700	Printing, publishing, and allied industries
2830	Drugs
2850	Paperboard containers and boxes
3000	Rubber and miscellaneous products
3100	Leather and leather products (except 3110-leather tanning and finishing)
3230	Glass products, made of purchased glass
3400	Fabricated metal products, except machinery and transportation equipment (except 3441-fabricated structural metal)
3500	Industrial and commercial machinery and computer equipment
3600	Electronic and other electrical equipment and components, except computer equipment
3700	Transportation equipment (except 3730-ship and boat building and repairing)
3800	Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks
3900	Miscellaneous manufacturing industries
4221-25	Farm products warehousing and storage, refrigerated warehousing and storage, general warehousing and storage

3.C.7 Visual Dry Weather Screening

The MCDOT conducts inspections of storm sewer outfalls, at appropriate times of year, to detect non-stormwater discharges and illegal dumping. A portion of he outfalls are inspected on an annual basis so that all outfalls are inspected over five year intervals. The MCDOT has also identified high priority outfalls that are inspected annually. Appendix 5.6 lists all outfalls and identifies the high priority outfalls.

3.C.8 Pollutant Field Testing

This minimum control measure (MCM) is not presently identified in our permit program; however, the McHenry County Department of Health (MCDH) does annual sampling of all public beaches in McHenry County.

To ensure residents enjoy a safe and healthy swimming season, MCDH tests the County's 38 beaches at least once every 2 weeks, from Memorial Day to Labor Day. Samples are taken from both shallow and deep areas, tested for bacterial levels and compared to acceptable limits set by the State Health Department. Results are posted regularly and can include a swimmer's advisory or closure of the beach, if elevated E. coli levels are found. Check online for beach results at www.co.mchenry.il.us/county-government/departments-a-i/health-department/environmental-health/public-beaches.

Additional sampling data will be incorporated into future SMPPs.

3.C.9 Public Notification

This minimum control measure (MCM) is not presently included in our permit program. This MCM will be reevaluated at a later date for possible inclusion.

3.C.10 Other Illicit Discharge Controls

This minimum control measure (MCM) is not presently included in our permit program. This MCM will be reevaluated at a later date for possible inclusion.

3.D Construction Site Storm Water Runoff Control

The goal of the McHenry County Stormwater Management Ordinance (MCSMO) is to ensure that new development does not increase existing stormwater problems or create new ones. The MCSMO establishes countywide standards for runoff maintenance, detention areas, soil erosion and sediment control, water quality, wetlands, and floodplains. These provisions are only applicable for regulated development activities as defined by the MCSMO. Applicants that hydrologically disturb greater than one acre are also required to seek coverage under the statewide construction General Permit No. ILR10 by filing a Notice of Intent (NOI) with the IEPA.

The MCSMO is implemented at the County level and at the municipal level. Currently there are sixteen "Certified Communities" whose corporate limits are entirely within the county. There are six additional Certified Communities whose corporate limits straddle the county border. However, the number of Certified Communities is subject to change at any time. The designation allows those communities to enforce MCSMO standards within their own jurisdictions. The McHenry County Department of Planning and Development, Water Resources Division administers the MCSMO and issues permits for the developments within unincorporated McHenry County and the Non-Certified Communities, of which there are eight.

3.D.1 Regulatory Control Program

The McHenry County Stormwater Management Ordinance (MCSMO), most recently amended April 5, 2016, fulfills the minimum control measure D.1 as its qualifying local program. All McHenry County facilities adhere to the MCSMO for all internal development construction projects as well.

Applicants are directed to the McHenry County Department of Planning and Development for information pertaining to the permitting process. Developments that exceed the MCSMO minimum thresholds are provided with a McHenry County Stormwater Management Permit application form. Applicants submit the completed form and supporting documentation to the Department of Planning and Development for review and comment. After the Department of Planning and Development concurs that the applicable provisions of the MCSMO have been addressed, a Stormwater Permit is issued. Each permit lists any additional conditions that are applicable to the development.

Ordinance provisions include, but are not limited to, the following:

- Grading plan and soil erosion and sediment control plan. The plan must:
  - Prevent discharge of sediment from the site through the implementation of soil erosion control practices, primarily, and sediment control secondarily; and
  - Protect receiving waters, natural areas, and adjacent properties from damage which may result from the proposed grading.
- Water quality;
- Established inspection duties for the applicant and procedures for inspections;
- Record keeping and reporting procedures;
- Security deposits to ensure faithful performance for subdivision developments, gravel pit reclamation plans, and certain building demolition projects;
- Enforcement measures to achieve compliance; and
- One year warranty period, for applicable developments.

The McHenry County Technical Reference Manual and the Illinois Urban Manual (2014 edition or as amended) include detailed guidance on selection and implementation on related best management practices.

As part of the permit review process, applicants that hydrologically disturb greater than one acre are also required to seek coverage under the statewide construction General Permit No. ILR10 by filing a Notice of Intent (NOI) with the IEPA. During construction, applicants are required to submit to IEPA Incidence of Noncompliance (ION) forms, as necessary. After the site is substantially stabilized, the applicant is required to submit a Notice of Termination (NOT). All forms are filed with the construction project itself.

3.D.1.a Responsible Parties

APPLICANT

The applicant is ultimately responsible for ensuring compliant soil erosion and sediment control, other waste control, and other construction site runoff control measures on-site during construction. General contractors, sub-contractors, and other hired employees of the applicant can assist the applicant in maintaining a compliant site; however, the applicant remains the responsible party. The applicant is also responsible for obtaining all other required state and federal permits, including an NOI with IEPA, and upholding all permit conditions (including completing inspection logs).

ENFORCEMENT OFFICER

The Enforcement Officer (EO) is responsible for the administration and enforcement of the provisions of the MCSMO. Additionally, the EO is responsible for performing spot inspections of development. Review and inspection efforts can be performed by personnel under his/her direct supervision. A full description of the EO responsibilities is included in Article X, Section D of the MCSMO. The EO follows established procedures for notifying applicants of deficiencies and obtaining site compliance (i.e., enforcement).

It is also both the right and the responsibility of the EO to ensure that all incidences of non-compliance received from an inspector or complainant are resolved.

QUALIFIED INSPECTOR

The purpose of the qualified inspector (QI) program is to facilitate positive communication between the County and the permit holder by creating a single point of contact for soil erosion and sediment control issues with the idea that it is easier to prevent soil erosion and sediment control problems than it is to correct them after they have occurred. Further, the program is intended to improve site conditions, minimize environmental impacts, and educate contractors/ developers/inspectors about proper soil erosion and sediment control Best Management Practices.

The applicant, for developments with one acre or more of hydrologic disturbance per the MCSMO, is required to hire or employ a QI. The QI can work for the permittee's contractor, subcontractor, consultant, etc. The QI does not have to be a direct employee of the permittee.

The QI has the responsibility to conduct inspections as required, document inspections, keep inspections and project plans available on-site, report non-compliance issues promptly, and recommend soil erosion and sediment control measures as necessary. Assuming the QI is competently completing these steps, the QI is considered to meet the requirements of the program. Ultimately, liability for a development in nonc-ompliance may fall to the owner, the applicant, the contractor, the developer, the QI, or anyone else involved as determined on a case-by-case basis.

Currently all sites with greater than one acre or more of hydrologic disturbance require a permit from IEPA and a designated inspector. A designated inspector, under the IEPA program, does not need to be a QI recognized by the County; however, a QI can fulfill both roles. Additionally, the site inspection logs can typically meet the permit conditions of both the MCSMO and the IEPA.

3.D.2 Erosion and Sediment Control BMPs

All McHenry County unincorporated areas, non-certified communities, certified communities, McHenry County Division of Transportation and other facilities adhere to the following:

- McHenry County Stormwater Management Ordinance (MCSMO) and all amendments;
- Illinois Environmental Protection Agency;
- United States Army Corps of Engineers;
- Illinois Department of Natural Resources;
- Illinois Urban Manual; and
- McHenry-Lake County Soil & Water Conservation District soil and erosion control standards.

The MCSMO specifies the soil erosion and sediment control measures that must be used in conjunction with any land disturbing activities conducted on a development site. Ordinance provisions include but are not limited, to the following:

- Grading, soil erosion and sediment control plan. The plan must:
  - Minimize soil disturbance
  - Prevent discharge of sediment from the site through the implementation of soil erosion control practices, primarily, and sediment control secondarily
  - Protect receiving waters, natural areas and adjacent properties from damage which may result from the proposed grading
  - Complete installation of soil erosion and sediment control features prior to commencement of hydrologic disturbance
  - Stabilize disturbed areas within 7 days of active disturbance
  - Avoid disturbance of streams and sensitive areas, whenever possible
  - Use controls that are appropriate for the size of the tributary drainage area
  - Protect functioning storm sewers from sediment
  - Prevent sediment from being tracked onto adjoining streets
  - Limit earthen embankments to slopes of 3H:1V
  - Identify soil stockpile areas
  - Utilize statewide standards and specifications as guidance for soil erosion and sediment control
- Waste control;
- Runoff Volume Reduction Hierarchy and Water Quality;
- Established inspection duties for the applicant and procedures for inspections;
- Record keeping and reporting procedures; and
- Enforcement measures to achieve compliance.

See Appendix 5.7 for these standards which fulfill this minimum control measure.

3.D.3 Other Waste Control Program

3.D.3.a Construction Site Waste Control

The MCSMO includes several provisions that address illicit discharges generated by construction sites. The applicant is required to prohibit the dumping, depositing, dropping, throwing, discarding or leaving of litter and construction material and all other illicit discharges from entering the stormwater management system. Although this minimum control measure is not included in the County's NOI and annual year-end report, the County enforces these requirements already.

3.D.3.b Development Tracking

The McHenry County Department of Planning and Development, Water Resources Division tracks development utilizing Devnet, a database program that tracks permitting and development permits. Each permit is given a unique permit number based on property address and/or Parcel Identification Number (PIN).

3.D.3.c Pavement Projects

Pavement resurfacing and maintenance projects are determined through pavement evaluation studies that take place approximately every 5 years. Project work shall follow IDOT Standard Specifications and applicable provisions of the MCSMO. At a minimum, protect drainage structures with inlet filter bags during construction activities.

3.D.4 Site Plan Review Procedures

3.D.4.a Minimum Construction Site Practices

The County enforces the McHenry County Stormwater Management Ordinance (MCSMO) for all unincorporated areas of the county. Applicants are directed to the Department of Planning & Development (P&D) for information pertaining to the permitting process. Developments that exceed the MCSMO minimum thresholds are provided with a Stormwater Management Permit Application form. Applicants submit the completed form and supporting documentation to P&D for review and comment. P&D performs a review of the proposed site plan and provides comments to the applicant on any plan deficiencies and/or recommended plan enhancements. The plan review also assists in identifying other approvals that the applicant may be required to obtain. The permit is issued once all applicable provisions of the MCSMO have been addressed. The permit lists any additional conditions that are applicable for the development. The applicant is required to post the permit at the construction site.

As stated above, a site plan is required to comply with minimum prescribed practice requirements set forth in the MCSMO. The MCSMO also allows for the County to require additional measures, above and beyond minimum control measures, to prevent the discharge pollutants from construction sites. Design and implementation guidance is available in the McHenry County Technical Reference Manual (TRM) and other reference materials identified in Appendix 5.7 of the SMPP. Some minimum control measures include the following:

- Construction site sequencing and phasing;
- Preservation of existing vegetation and natural resources (through the runoff volume reduction hierarchy provisions);
- Stormwater conveyance systems (including concentrated flows, diversions, etc.);
- Stockpile management;
- Soil erosion control measures (including blanket and seeding);
- Stabilized construction entrances/exits and haul routes;
- Sediment control (including silt fence, inlet/outlet protection, ditch checks, sediment traps, sediment basins, etc.);
- Wind and dust control measures;
- Non-stormwater management (including dewatering practices, waste management practices, spill prevention and control practices, etc.);
- Construction buffers;
- Construction details;
- Water quality protection; and
- Standard soil erosion and sediment control notes.

3.D.5 Public Information Handling Procedures

Although the County did not include this minimum control measure in its current NOI and annual year-end report, all departments have procedures in place for this MCM. Various ways include speaking engagements, interviews, website, and newsletter updates.

3.D.6 Site Inspection/Enforcement Procedures

The McHenry County Stormwater Management Ordinance (MCSMO) Article VI, Sections A.4, A.5, and A.6 mandate periodic inspections of erosion and sediment control measures as required in BMP D.6. These sections are used as the qualifying local program.

Representatives of the County are authorized to enter upon any land or water to inspect development activity and to verify the existing conditions of a development site that is under permit review.

The County may inspect site development at any stage in the construction process. For major developments (projects with one acre or more of disturbance), the McHenry-Lake County Soil and Water Conservation District, on behalf of the County, shall conduct site inspections, at a minimum, at the end of the construction stages listed below. Those projects with less than one acre of disturbance are also inspected by McHenry County staff, but at construction stages 1, 2, 4, and 7. Appendix 5.10 includes a listing of major development projects that have been inspected by McHenry-Lake Soil and Water Conservation District. Construction plans approved by the Enforcement Officer shall be maintained at the site during progress of the work. Recommended inspection intervals are listed below:

1. Prior to the start of construction;
2. Upon completion of installation of soil erosion and sediment control measures (including perimeter controls and diversions), prior to proceeding with any other earth disturbance or grading;
3. After stripping and clearing;
4. After rough grading;
5. After final grading;
6. After seeding and landscaping; and
7. After final stabilization and landscaping, prior to removal of sediment controls.

Additionally, a qualified inspector, hired by the applicant, is required to inspect the development site (if the project is one acre or greater of disturbance) at the following intervals:

1. Upon completing installation of soil erosion & sediment control measures (including perimeter controls and diversions), prior to proceeding with any other earth disturbance or grading;
2. After stripping and clearing;
3. After rough grading;
4. After final grading;
5. After seeding and landscaping;
6. After final stabilization and landscaping, prior to removal of sediment controls;
7. At least every seven (7) calendar days; and
8. Within 24 hours of the end of a storm that is 0.5 inch or greater rain event or a discharge of snowmelt.

MCDOT Site Inspection Process:

Per IDOT Construction Memorandum 03-07, the owner/contractor must attend pre-construction meetings for all transportation projects. The McHenry County Division of Transportation attends the pre-construction meeting on all County-owned transportation projects. During the pre-construction meeting, the ***Storm Water Pollution Prevention Plan Erosion Control Inspection Report*** (see example in Appendix 5.8) is reviewed by all parties for needs and compliance. Also, before the project breaks ground, the MCDOT holds another pre-sediment and erosion control meeting with MCSWCD who inspects for McHenry County Department of Planning and Development and the U.S. Army Corps of Engineers when the project is in their jurisdiction.

Site Inspection Process:

The McHenry County Department of Planning and Development, who oversees the MCSMO, strongly recommends pre-construction meetings with the developer. The developer is required to notify the County at various stages of work.

The recommended site inspection process is outlined below:

- The applicant notifies the appropriate County department when initial sediment and runoff controls measures have been installed.
- The County representative inspects the initial sediment and runoff control measures and authorizes the start of general construction.
- The County representative inspects the stormwater management system and authorizes additional site improvement activities.
- The applicant performs site inspections at the recommended intervals listed above and completes the ***SE/SC Inspection Form*** (Appendix 5.8).
- The appropriate County department requires as-built documentation of the stormwater management system after final site stabilization. Tags of the seed mixes are kept by the developer and/or contractor for inspection and approval.

3.D.6.a Complaints

The County frequently receives phone calls regarding developments, either during the review or construction phase. Both site design and construction-related phone calls are directed to the County's Enforcement Officer or designee and/or MCDOT Construction department, and logged. Site design comments are handled on a case-by-case basis. Construction-related calls are typically addressed by performing a site inspection.

3.D.6.b Performance Guarantees

Pre-construction meeting – No deposit required.

Performance Guarantee (surety) is required for new subdivision improvements (i.e., sewer, water, right-of-way work), stormwater management system, and landscaping. The engineers opinion of probable construction cost (EOPCC) is provided to the Enforcement Officer for their review/approval. The required surety amount shall be 150% of the approved EOPCC.

Refer to the McHenry County Stormwater Management Ordinance and Unified Development Ordinance for information regarding the surety requirements.

3.D.7 Other Construction Site Runoff Controls

The McHenry County Stormwater Management Ordinance (MCSMO) fulfils the minimum control measure D.7 as its qualifying local program. The MCSMO requires the following notifications:

"To facilitate inspections by the Enforcement Officer and to ensure compliance with the stormwater management permit, and this Ordinance, the applicant shall notify the Enforcement Officer within 2 working days of the construction stages specified below:

i) Prior to the start of construction;
ii) Upon completion of installation of soil erosion and sediment control measures (including perimeter controls and diversions), prior to proceeding with any other earth disturbance or grading;
iii) After stripping and clearing;
iv) After rough grading;
v) After final grading;
vi) After seeding and landscaping; and
vii) After final stabilization and landscaping, prior to removal of sediment controls.
viii) If stripping, clearing, grading and/or landscaping are to be done in phases or areas, the applicant shall give notice at the completion of each of the above work stages in each phase or area.

For regulated development disturbing less than one acre, notifications are required at stages i), ii), iv), and vii) of the above list."

3.D.7.a Violation Notification Procedures

REQUEST FOR ENFORCEMENT VIOLATIONS

A Request for Enforcement (RFE) is when a person makes a complaint about stormwater-related issues via phone calls, letters, or in person. All complaints are allowed to be anonymous. Once a complaint is made, it must be investigated by either a stormwater representative or one of the inspectors who are assigned to that area of the County. This section addresses the initial complaint and how to locate an RFE file (already created).

1) Once a request is received regarding a potential violation, an RFS form is completed. RFS forms are located in the applications/checklists drawer at the counter or on the department's computer server. Once it is filled out, it is placed in the inspection drawer for the next day.
2) The inspector visits the site to document the potential violation. Visual observations are made and photographs are taken.
3) When the inspectors complete an RFS form with their findings, the form and photos are given to administrative assistants to log in, and then to the Code Enforcement Officer to start an RFS file. The file is then given to the Department of Planning and Development,

Water Resources Division to determine by looking at the photos and through research on the property if there is a Stormwater Management Ordinance violation.

4) If it is determined that there is not a violation, the file will be closed. The Water Resources Division is responsible for calling back the complainant, if requested, to notify them of the results.
5) If it is determined that there is a violation, a 14-day letter will be written to the property owner explaining the reason for the violation. The County Chief Engineer/Enforcement Officer signs the 14-day letter. The date the 14-day letter was sent is noted on the front of the file and in Devnet and is given back to Code Enforcement Officer to file.
6) If the property owner has not responded to the letter within the 14-day time period, either by phone or by applying for a Stormwater Mangement Permit, a 10-day letter is sent. The County Chief Engineer/Enforcement Officer signs the 10-day letter. The 10-day letter is sent via certified mail. The date the letter was sent is noted on the file and in Devnet and is given back to Code Enforcement Officer to file.
7) If the owner responds to the letter, staff discusses with the owner what needs to be done to address the violation. A note is placed on the RFS file cover of what was discussed, and the information is logged into Devnet. A day/date that a Stormwater Management Permit application or further contact will be made is established by both parties. This is noted on the file as well. This will be used as a re-check status day/date.
8) If a Stormwater Management Permit application is made, staff will review and log the permit as if a typical application. Note the RFS file number on the new permit file and note the date and permit number on the cover of the RFS file.
9) If the owner applies, but does not provide any additional information after two weeks, a call is made to the owner to find out the status. A time is provided to the owner to either get the County the information or remove the violation. In two weeks, if no information has been received, send a ten-day letter. If no information has been received by established date and the violation has not been removed (photos taken by Enforcement Officer), one courtesy call is provided before court papers are sent. The file containing the signed court papers are given to the Code Enforcement Officer who files the court papers with the State's Attorney's Office. The County Chief Engineer/Enforcement Officer and Code Enforcement Officer attend weekly court proceedings (Monday morning), in order to get the property owner to comply.
10) The timing of each of these steps depends on the time of year. A wetland delineation can only be performed during the growing season (typically May 1 through October 31 – there are exceptions), and obtaining a wetland consultant to hire and perform the work could take two to three weeks. A topographic survey can be difficult to do with snow on the ground (there are exceptions), and it could take an engineer or surveyor six weeks from the date of hire to completion of the first submittal. If the violation has taken place during a portion of the season that makes it impossible for the owner to promptly provide the necessary plans and reports, the Water Resources Division will work out a reasonable schedule and timeline for completion with the property owner.
11) If an engineer or consultant is required, the property owner will be responsible for providing the County with a letter from the engineer or consultant stating that they have been hired to perform the work, and a timeline explaining when the work will be performed.

12) Projects that will need inspections, review and permits from the U.S. Army Corps of Engineers and/or the Illinos Department of Natural Resources could take several months. During the time we are waiting to hear from these government agencies, the Water Resources Division will request continuous communication on the status of the project with the agencies and the property owner.
13) If the property owner does not submit the required information according to the established timeline, the Water Resources Division will call one time and request an updated timeline. If a second deadline is missed, or if an updated timeline is not provided promptly, the Water Resources Division will continue with the next enforcement action.
14) If a permit is issued, the violation is closed. If a permit is issued but the violation has not been removed, the Stormwater Management Permit file will remain open with special conditions provided to the property owner and established inspections per the County Chief Engineer/Enforcement Officer.

3.E Post-Construction Storm Water Management in New Development and Redevelopment

The County complies with NDPES permit requirements by incorporating McHenry County Stormwater Management Ordinance (MCSMO) and best management practice (BMP) standards to minimize the discharge of pollutants of development and transportation projects. This chapter describes how the compliance with stormwater discharge permit requirements for long-term post-construction practices that protect water quality and control runoff flow is achieved.

This SMPP creates and references extensive policies and procedures for regulating design and construction activities for protecting receiving waters. The design and construction site practices selected and implemented by the responsible party for a given site are expected to meet BMP measures described in the MCSMO and Technical Reference Manual and the IEPA's Program recommendations. All proposed permanent stormwater treatment practices must be reviewed and approved by the designated County representative.

3.E.1 Community Control Strategy

McHenry County has not included this minimum control measure in its permit program. We will review and consider inclusion in future permits. The County's "Request for Enforcement" procedure, as outlined in Section 3.D.7.a above, is also relevant for information submitted to the County by the public.

3.E.2 Regulatory Control Program

McHenry County has adopted and enforces the Stormwater Management Ordinance (MCSMO), which regulates construction site and post-development stormwater runoff. The county's Department of Planning and Development administers and enforces this stormwater program in unincorporated areas of the County as well as non-certified communities that do not have the in-house resources to administer and enforce the Ordinance. The McHenry County Division of Transportation (MCDOT) enforces these ordinances for their internal construction projects. MCDOT will continue to comply with the BMPs set forth for permanent erosion and sediment control standards specified by the IEPA, U.S. Army Corps of Engineers, Illinos Department of Natural Resources, Illinois Urban Manual, and McHenry-Lake County Soil and Water Conservation District and other county ordinances. This program is the qualifying local program for BMP E.2.

The MCSMO includes numerous performance standards on grading, stormwater detention, and soil erosion and sediment control that must be met for all parties undertaking construction. The McHenry County Technical Reference Manual is a guidance tool that describes BMP and

implementation procedures for enforcing the MCSMO. All permit applicants must utilize stormwater management strategies that minimize increases in stormwater runoff rates, volumes, and pollutant loads from development sites. Proposed stormwater management strategies must address the runoff volume reduction requirements of the MCSMO and must include appropriate stormwater BMPs to address the other applicable post-construction runoff control requirements of the ordinance.

Within both the MCSMO and McHenry County Unified Development Ordinance, development that is proposed within areas with moderate or high infiltration characteristics are limited on scope and size. Infiltration basins are prohibited in certain areas of the county per ordinance regulations.

3.E.2.a Runoff Volume Reduction Hierarchy

The current MCSMO contains a section on Runoff Volume Reducion Hierarchy (Article VI, Section B.6) that requires an applicant to choose strategies that minimize increased runoff volumes from a development site. Measures include preservation of natural features, existing streams, channels, and drainageways; minimization of impervious surfaces; use of open vegetated swales for conveyance; and naural landscaping. The site plan will include a combination of structural and/or non-structural BMPs that will reduce the discharge of pollutants, the volume and velocity of stormwater flow to the maximum extent practicable.

3.E.2.b Green Infrastructure

Each permittee should adopt strategies that incorporate stormwater infiltration of *good quality water,* reuse, and evapotranspiration of stormwater into the project to the maximum extent practicable. Site plan design and review should ensure that the development plan incorporates green infrastructure and/or low impact design techniques when possible. Types of techniques include green roofs, rain gardens, rain barrels, bioswales, permeable piping, dry wells (with appropriate pre-treatment), and permeable/porous pavement.

3.E.3 Long Term Operation and Maintenance Procedures

Development involving a stormwater management facility, wetlands or buffers must have a long term operation and maintenance plan. This plan is enforced by the McHenry County Department of Planning and Development and MCDOT. The MCSMO Article X.D.7 gives the McHenry County Department of Planning and Development Enforcement Officer the right to require deed restrictions, performance bonds or sureties, as-built certification, or maintenance guarantees as stipulated in the Ordinance to assure projects are built and maintained according to permitted plans.

The MCDOT Access Management Ordinance (AMO) Section 4.4.4 requires a maintenance guarantee for a 1-year minimum maintenance period from the developer before the MCDOT accepts maintenance responsibilities for road improvements.

3.E.4 Pre-Construction Review of BMP Designs

Projects are reviewed with respect to stormwater by the McHenry County Department of Planning and Development, Division of Water Resources and MCDOT depending upon jurisdiction, but all projects (development or road infrastructure) will receive a thorough review. All regulated development in unincorporated McHenry County and in non-certified communities is reviewed by the McHenry County Department of Planning and Development, Division of Water Resources to ensure adherence to the MCSMO.

On all road projects by McHenry County and all development projects fronting a County Route, the MCDOT Drainage Engineer is responsible in reviewing all stormwater structural and non-structural BMPs used within the road right-of-way.

These review processes are the qualifying local program for BMP E.4.

3.E.5 Site Inspections During Construction

The McHenry County Stormwater Management Ordinance (MCSMO) Article VI, Sections A.4, A.5, and A.6 mandate periodic inspections of soil erosion and sediment control practices for minimum control measure D.6 in the SMPP. These sections are used as the qualifying local program.

Additionally, the IDOT Construction Memorandum No. 03-07 requires the owner/contractor to attend a pre-construction meeting for all County road projects, while the MCSMO Articles VI.A.4, VI.A.5, and VI.A.6 requires periodic soil erosion and sediment control inspections during construction for both development and County road projects. If the development is greater than one acre of disturbance, additional inspections are required on behalf of the permit applicant.

The inspection program for its general facilities is discussed in detail in Chapter 3.F.2. The inspection procedure for site inspections related to construction activities is discussed in detail in Chapter 3.E.5.

3.E.6 Post-Construction Inspections

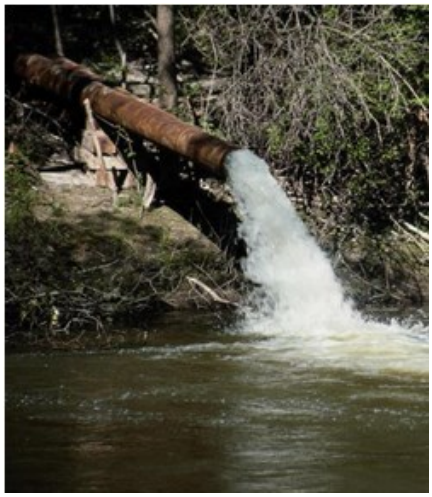
The following ordinances and State standard act as the qualifying program for this minimum control measure. The MCSMO Article VI.A.5 requires a final inspection by an appropriate County Representative for all development projects in unincorporated areas and non-certified communities. For any developments that also have a MCDOT Major Access Highway Permit, the MCDOT Access Management Ordinance 5.8 requires a final inspection by the MCDOT for all associated road work. With respect to County road projects, the IDOT Standard Specifications for Road and Bridge Construction Article 105-13 requires a final inspection upon completion of construction.

3.E.7 Other Post-Construction Runoff Controls

Although this minimum control measure is not included in the County's NOI and annual year-end report, the County enforces these requirements already per the MCSMO.

One additional control that the County has employed is the adoption of a number of watershed-based plans throughout the County. The County will adopt watershed plans that extend into its corporate limits and review recommended individual site-specific projects and programmatic actions. The County encourages private property owners to implement the recommendations. Implementation of recommendations by the County will be evaluated on a yearly basis as part of its fiscal planning/budgeting process keeping in mind that ONLY the implementation of individual site-specific projects or programmatic actions WITHOUT the use of 319 funding can be cited by an MS4 community toward meeting ILR40 permitting requirements.

3.F Pollution Prevention and Good Housekeeping for Municipal Operations



The County is responsible for the care and upkeep of the general facilities, county roads, and associated maintenance yards. Many maintenance activities are most regularly performed directly by staff; however, from time to time contractors are employed to perform specific activities. This chapter describes how the compliance with permit requirements is achieved by incorporating pollution prevention and good housekeeping stormwater quality management into day-to-day operations. On-going education and training is provided to ensure that all of its employees have the knowledge and skills necessary to perform their functions effectively and efficiently.

3.F.1 Employee Training Program

The County's practice is to provide education and training to all of its employees to ensure that they have the knowledge and skills necessary to perform their functions effectively and efficiently. Within the County, the separate departments train their employees on procedures and policies which incorporate best management practices for pollution prevention and stormwater.

3.F.1.a Training Approach

Employees are encouraged to attend all relevant training sessions offered by the qualifying local program and other entities on topics related to the goals/objectives of the SMPP. Additionally, the County will develop employee training with curricula and materials tailored to specific functional groups. Refer to Table 7. The materials focus on pollution prevention measures and practices involved in routine activities carried out by the various functional groups. Training materials primarily focus on revisions to the various programs (that were in place prior to the acceptance of the SMPP).

Table 7: Department Responsibilities

Department	Area of Responsibility	Training
Planning and Development	Stormwater Construction/waste disposal Pollution Prevention Sediment and Erosion Control Water Resources Inspections	Attend workshops and conferences Attend webinars Internal employee training
Department of Health	Illicit Discharge, Detection and Elimination Waste Disposal	Attend workshops and internal trainings
MCDOT	Pollution Prevention Stormwater Salting Construction Waste Disposal Spill Response	Winter Snow and Ice Workshop Snow and Ice Road-eo Attend workshops, webinars, conferences and seminars
Facilities Management	Pollution Prevention Waste Disposal Grounds maintenance and landscaping Valley Hi	Attend workshops and internal trainings
Emergency Management Agency	Hazardous Materials & Spill Response Reporting	Attend workshops and internal trainings
Sheriff	Spill response Ammunition Storage and Handling Narcotic Disposal	Attend workshops and internal trainings
Animal Control	Waste disposal Medication Disposal	Attend workshops and internal trainings
Coroner	Narcotic Disposal	Attend workshops and internal trainings

*Please refer to Appendix 5.9 for a detailed list of department training.

3.F.1.b Training Schedule and Frequency

Ongoing training is sought to meet the needs of the departments and NPDES permit. Digital and hard copies of the training materials will be kept and shared with applicable new employees as part of their job introduction. Revisions/enhancements to the SMPP will be approved by the NPDES Coordinators and then shared with applicable departments and employees. The NPDES Coordinators will monitor the potential need for overall refresher material distributions and offer additional training as necessary.

Employees are encouraged to share information with other employees via e-mail or other formats. Information may include:

- Updates and news which might enhance pollution control activities;
- Feedback from field implementation of best management practices; or
- New product information.

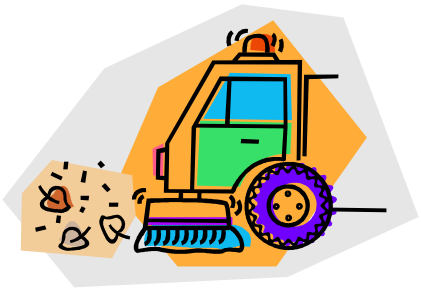
3.F.2 Inspection and Maintenance Program

Each department maintains inspection and maintenance programs according to internal procedures relevant to their specific responsibilities. In the County's annual permit, the County has focused on inspection of all stormwater outfalls, detention/retention facilities, and stream channels which fall under the jurisdiction of the County. The specified County personnel within each department are responsible for inspecting and overseeing the maintenance of related stormwater facilities and activities.

A master list of ponds, detention/retention facilities, stream channel outfalls, and storm drainage outfalls are listed and associated stormwater outfall inspection forms are noted in Appendix 5.6.

3.F.3 Municipal Operations Storm Water Control

3.F.3.a Street Sweeping



Street sweeping has a direct beneficial impact on water quality. Street sweeping operations are performed to reduce potential illicit discharges and to provide a clean environment. The McHenry County Division of Transportation maintains approximately 23 miles of curb line.

The curb lines of all streets are cleaned on a rotating basis. The rotation maybe changed or interrupted if heavy rain occurs, the sweeper is out of order due to mechanical problems, or the MCDOT maintenance crew experiences heavy workload. Each street is typically swept/cleaned approximately 2 to 4 times per year. See Appendix 5.11 for the street sweeping map.

Sweeper waste is collected and put in a contained area to drain and dry, then disposed of in the waste dumpster to be hauled to an appropriate landfill. MCDOT Sweeper Truck operators submit daily operation reports detailing location and debris amount. Evaluation of cleaning frequency is ongoing.

3.F.3.b Drainageways

Drainageways include any river, stream, creek, brook, branch, natural or artificial depression, ponded area, lakes, flowage, slough, ditch, conduit, culvert, gully, ravine, swale, wash, or natural or man-made drainageway, in or into which surface or groundwater flows, either perennially or intermittently. Primary drainageways are listed in Appendix 5.12 and on the annual NOI report. Minor drainageways include roadside and side yard swales, overland flow paths, pond outlets, etc. Detention/retention ponds are part of the Storm Sewer Atlas and Outfall Inventory Map (refer to Appendix 5.6).

POND OUTLETS

The ***Detention/Retention Pond Checklist*** is part of the ***Storm Sewer Atlas*** and ***Outfall Inventory Map*** (that can be requested), and is used to determine inspection locations. Structures are added to the checklist after new facilities are approved and accepted. Locations identified on the checklist are to be inspected every three years. Ponds are inspected and evaluated for a low, medium, and high level of flood height according to the following classifications.

Flood Height Classification

- Low – normal water level (NWL)
- Medium – NWL to top of grate
- High – top of grate and above

Condition

- Good – outlet is unimpaired, not blocked
- Fair –outlet obstructions observed, although outlet is discharging
- Poor – outlet is blocked or obstructed

Comments

- Note structural defects or other observances.
- If obstructions are observed, a maintenance request is submitted to clear and remove debris. If water levels are too high, a follow-up inspection will take place when water recedes.

BOX CULVERTS AND BRIDGES

Box Culverts & Bridges are listed on the ***Storm Sewer Atlas*** and ***Outfall Inventory Map*** (that can be requested). Structures are added to the map after new facilities are approved and accepted. Locations identified on the map are inspected every three years as well. Inspection procedures follow the Pond Outlet discussion above.

DRIVEWAY CULVERTS

Maintenance and replacement of driveway culverts is the property owner's responsibility. A minimum 15" diameter culvert is required per County Standards. Permits are required for culvert replacement; a soil erosion and sediment control plan may be required as part of the permit. The MCDOT inspects the culvert when it is set to grade and prior to backfilling. They also may rod/clean culverts on an as-needed basis.

CATCH BASINS AND OUTFALLS

Catch basin locations are identified on the ***Storm Sewer Atlas***. Locations of cleaned catch basins are tracked. MCDOT uses a vacuum truck to clean out outfalls and catch basins. The vacuum truck operates approximately 3 to 4 days a week, clearing an average of 6 to 10 locations per day. Vacuum waste is collected and put in a contained area to drain and dry, then disposed of in the waste dumpster to be hauled to an appropriate landfill.

Catch basins found to have structural deficiencies and need remedial actions are reported to and completed by the MCDOT Maintenance Department. If maintenance cannot remediate, then repairs will be incorporated into a capital improvement project. Catch basins that have been cleaned are tracked on the GIS database using a color coded system.

STORM SEWERS

If catch basin debris is at the invert elevation of the downstream pipe (i.e., has completely filled the sump area), then the downstream storm sewer system is also cleaned. Likewise, if a water main break or other heavy flow occurs that flushes potential illicit discharges into the storm sewer system, the receiving storm sewer lines are inspected and then cleaned as necessary.

OTHER INLET AND GRATE CLEANING

Cleaning of these areas occurs on an as-needed basis (e.g., complaints, incidences, standing water, etc.). Spoil waste that is obtained from inlet and grate cleaning or vacuuming is disposed of properly.

DITCHES/SWALES AND OVERLAND FLOW PATHS

Right-of-way Drainage Swales: The MCDOT documents observed or reported erosion or sediment accumulation. Areas of significant concern are incorporated into a maintenance program.

3.F.3.c Landscape Maintenance

The County of McHenry maintains care and upkeep of its general facilities, County roads and rights-of-way, and associated maintenance yards. County staff is responsible for weed management. The County annually selects and contracts with a landscape contractor for County facilities. This contractor is responsible for the landscape maintenance program under the supervision of the Facilities Management Department. The contractor provides weed control and fertilizing two times per year, with pest control provided on an as-needed basis.

Along County rights-of-way, the MCDOT oversees noxious weed vegetation control along specific locations within the county system. Additionally, the MCDOT maintains approximately 12 miles of guardrail along County highways. The use of herbicides for broadleaf weed control along guardrail is limited to locations of guardrail in the county and the time of year. The DOT contracts this work, which is performed from mid-April to mid-May. The contractor uses herbicides having low toxicity to aquatic life. BMPs reflected in the County's maintenance activities include triple rinsing of herbicide containers and application of the rinsate to the area being treated, spill prevention during storage, use minimization, application by licensed operators, and careful selection of pesticide materials to minimize any potential adverse water quality impacts.

The County is responsible for ensuring that their landscape contractors are aware of the NPDES requirements to ensure that they adhere to the County's SMPP. Additionally, the County retains copies of contractor permits for the application of herbicides and pesticides.

LITTER AND DEBRIS

The County's litter control and waste programs serve to protect water quality and enhance the visual aesthetics of the County. Litter and debris can accumulate on County property and roadway rights-of-way and should be removed. Each County facility is responsible for the clean-up of their respective facilities.

Despite efforts committed to public education, litter removal, street sweeping, dumping of trash along public rights-of-way, and litter from other sources still enters the stormwater system. The MCDOT performs a cleanup of all public rights-of-way once a year in spring to augment the Adopt-A-Highway Program (see Section 3.B.2.) This clean up consists of all maintenance personnel walking and collecting all garbage along the road-side. After the clean-up is performed, maintenance crews continue to perform weekly checks of the rights-of-way and pick up any large garbage that is found.

PRIVATE RESIDENCE YARD WASTE

The disposal of landscape waste is regulated by the McHenry County Public Health Ordinance. The Ordinance establishes the minimum standards for the county; however, multiple municipalities have more stringent requirements. The Solid Waste Manager actively promotes waste reduction and beneficial reuse of residential landscape waste as follows:

- Mulching and grass recycling;
- Backyard composting; and
- Native landscaping.

Information regarding these options is available on the Department of Health webpage www.mcdh.info, and the Department offers multiple brochures on this topic at the Department offices.

All licensed municipal waste haulers operating in McHenry County are required to offer landscape removal services to their customers. Residents who choose to have the landscape waste removed from their property may use a licensed waste hauler, landscaping service, or take their landscape waste to two (2) local IEPA-permitted composting facilities that offer drop-off options for residents.

Enforcement to address accumulations of landscape waste or open dumping of landscape waste is pursued under the authority of the Public Health Ordinance or Environmental Protection Act.

The Solid Waste Manager, Environmental Health Educator, and Community Information Coordinator provide ongoing education outreach through traditional and social media outlets, on the Department's webpage, as part of field enforcement activities, and through one-on-one consultations with the general public.

FERTILIZERS

The annual landscape contractor is required to be a licensed applicator for fertilizers. Weed killer and fertilizers are typically scheduled two and four times per season, respectively. Contractor specifications incorporate low impact products. The use of pesticides and fertilizers shall be managed in a way that minimizes the volume of stormwater runoff and pollutants per Illinois General Permit 87 (See Appendix 5.14).

3.F.3.d Snow Removal and Ice Control

The McHenry County Division of Transportation (MCDOT) continues to maintain a "bare pavement" policy as soon as possible after a storm event has ended. During snow removal and ice control activities, salt, de-icing chemicals, abrasives, and snow melt may pollute stormwater runoff. The need for de-icing materials continues to grow with potential deleterious effects on water quality. To address these potential pollutants, the MCDOT has internal policies and procedures that they follow. The MCDOT policies for snow removal and the MCDOT procedures for snow removal are available and can be obtained through the MCDOT maintenance department. In brief, the following procedures for the "winter season" are implemented.

ROADWAY ICE CONTROL

Use the minimal amount of salt, de-icing chemicals, and additives necessary for effective control. Prior to winter season, preparation work to obtain seasonal readiness is completed. These tasks include: inspecting and re-conditioning of spreaders and spinners; install these items onto snow removal vehicles; performing test operations; calibrating distribution rates per National Salt Institution Application Guidelines; and conducting better driver training. The completion of these preparatory tasks helps to ensure that only the necessary level of salt is applied.

The MCDOT monitors weather conditions to determine when they need to initiate anti-icing and snow removal operations. They follow the guidelines established within the Snow and Ice Policy and Procedures Manual.

SALT DELIVERY AND STORAGE

Steps are taken to ensure that the delivery, storage, and distribution of salt does not pollute stormwater runoff from the MCDOT facility. The MCDOT has a salt dome where all runoff from the dome, parking lots, and loading areas drain to stormwater detention basins that are designed to capture and settle pollutants.

All building floor drains in the vehicle storage facility and mechanic shop lead to an inline oil/water separator before being pumped to a county-owned sewage treatment facility. There are no floor

drains in the salt dome. The floor of the salt storage building and adjacent receiving/unloading area are constructed of asphalt or concrete. Delivered salt is unloaded onto a conveyor system that directs the salt into the dome. The limits of the salt pile are pushed back from the door opening to minimize potential illicit runoff. In the event that there is runoff from the salt storage building or unloading area, it drains to the stormwater detention basins.

SNOW PLOWING

Facilities Maintenance – Parking Lots
Snow plow/removal activities include snow removal and de-icing of all county facilities, sidewalks, and parking lots. Facilities management de-ices the county-owned sidewalks and parking lots; however, they contract out snow plowing/removal.

McHenry County Department of Transportation – Roadways
Snow plowing activities direct snow away from the lanes of travel. This activity reduces the amount of salt, chemical additives, abrasives, or other pollutants that go directly into the drainage system. Refer to the Snow and Ice Policy and Procedures Manual for additional operations information.

3.F.3.e Vehicle and Equipment Operations

Vehicle and equipment fueling and maintenance procedures and practices are designed to minimize or eliminate the discharge of pollutants to the stormwater management system, including receiving waters.

VEHICLE FUELING

Sheriff
The vehicle fueling area contains two tanks and two fuel pumps. These tanks are monitored by an electronic leak detection system. Leaking is constantly monitored by the system, whereas the system itself is tested weekly. Surface runoff, in the vicinity of the tank farm, sheet flows to a field south of the facility.

MCDOT
The vehicle fueling area contains two tanks and two fuel pumps. These tanks are monitored by an electronic leak detection system. Leak tests are performed annually. Surface runoff, in the vicinity of the tank farm, is directed to the stormwater detention ponds to the west of the facility. Any spills on the refueling pad or parking lot are immediately contained with oil dry or kitty litter, then swept up and properly disposed.

VEHICLE MAINTENANCE

This section includes proper handling and disposal of vehicle maintenance by-products such as waste oil, antifreeze, batteries, and tires. See below.

Sheriff
Vehicle maintenance procedures and practices are designed to minimize or eliminate the discharge of petroleum-based pollutants to the stormwater management system, including receiving waters. All building, maintenance shop, and truck storage floor drains lead to an inline triple catch basin oil/water separator. The trapped oil and sediments are pumped dry once a year by a hazardous waste vendor. All water after the settling process flows to the sanitary sewer system.

MCDOT
Vehicle maintenance procedures and practices are designed to minimize or eliminate the discharge of petroleum-based pollutants to the stormwater management system, including receiving waters. All building, maintenance shop, and truck storage floor drains lead to an inline triple catch basin oil/water separator. The trapped oil and sediments are pumped dry twice a year by a hazardous waste vendor. All water after the settling process is then pumped to a county-owned sewage treatment facility.

WASTE OIL, ANTIFREEZE, BATTERIES, TIRES, AND OTHER

Sheriff
Used fluids, including motor oil, transmission fluids, gear lubes, brake fluids, and other vehicle fluids (except antifreeze) are collected and stored inside the facility. Typically, the waste oil tank is emptied and the contents removed for recycling.

Used antifreeze is stored inside separately in two 55-gallon drums. When one drum is full, a special waste hauler is contacted for collection and disposal.

Used batteries are stored on top of a receiver pan inside the facility in case of leakage. Typically, the batteries are collected weekly by a local vendor.

Used tires are transported to a local vendor for recycling. Tires are stored inside the facility until enough are collected for a disposal run. Additionally, tires are stored in a manner preventing stagnant water conditions and vector mosquitoes.

Facilities Maintenance
Private certified companies perform all air conditioning-related work; therefore, the disposal of freon is not handled directly by the County. Cleaning fluids and solvents are contained within an enclosed area and maintained by a private licensed special waste company.

MCDOT
Used fluids, including motor oil, transmission fluids, gear lubes, brake fluids, and other vehicle fluids (except antifreeze) are collected and stored in a designated room in the maintenance shop. Typically, the waste oil tank is emptied and the contents removed for recycling on a bi-monthly schedule.

Procedures are in place for waste oil storage tanks, used oil filters, and lead batteries awaiting pick-up for recycling to be located inside the vehicle shop in a room with containment and a drain leading to the triple catch basin oil/water separator as a safety measure. All used oil and antifreeze

are periodically picked up for off-site reclamation by a waste oil service. There are no "significant" materials that are exposed to stormwater.

Used batteries are stored in an enclosed covered container at the maintenance shop. Typically, the batteries are collected by a local vendor periodically as new batteries are brought to the MCDOT.

Used truck tires are disposed of as new tires are purchased. Tires collected from County rights-of-way are stored outside on a rack away from the building until the MCDOT Maintenance Department transports them to a local tire vendor for proper disposal. Additionally, tires are stored in a manner preventing stagnant water conditions and vector mosquitoes.

3.F.3.f Pet Waste

McHenry County operates an Animal Control and Adoption Center in Crystal Lake. Staff utilize established procedures to prevent any negative public health or environmental impact from the animal waste. Solid animal waste on the outside premises is routinely picked up by staff and disposed of with the municipal solid waste. Animal waste on the inside of the building is routinely collected and disposed of with the municipal solid waste (e.g., cat litter, etc.) or washed into drains which discharge into the sanitary sewer (kennels).

The McHenry County Public Health Ordinance regulates the handling and disposal of animal waste to prevent nuisance, public health, or environmental concerns. Department of Health staff responds to complaints of accumulations of animal waste on private or public properties and follows its normal enforcement process to achieve compliance.

A brochure on the proper handling of pet waste has been developed by the McHenry County Department of Planning & Development, Water Resources Division and is available on the Water Resources webpage at www.mchenryh2o.com (Appendix 5.3).

3.F.3.g Animal Nuisance Control

The MCDOT, upon receiving notification or visible inspection, collects "road kill" from right-of-way areas. The carcasses are disposed of in an appropriate manner.

All policies, procedures, and maintenance activities in this section serve as the qualifying local program for BMP F.3.

3.F.4 Municipal Operations Waste Disposal

3.F.4.a Waste Management

Waste management consists of implementing procedural and structural practices for handling, storing, and disposing of wastes generated by a maintenance activity. This helps prevent the release of waste materials into the stormwater management system including receiving waters. Waste management practices include removal of materials such as asphalt and concrete maintenance by-products, excess earth excavation, contaminated soil, hazardous wastes, sanitary waste and material from within the triple basins. While this minimum control measure is not presently acknowledged in our permit program, the County does apply BMPs for this minimum control measure. At a later date, we will review current policies and procedures and consider including this minimum control measure in our five year program plan.

CONTAMINATED SOIL MANAGEMENT

Collect or manage contaminated soil/sediment generated during an emergency response or identified during construction activities for treatment or disposal. In the event of an emergency, the County contacts an environmental remediation contractor to clean up the spill and associated contaminated soils. If the MCDOT encounters contaminated soils during roadway construction, the County follows IDOT procedures for handling and clean-up.

HAZARDOUS WASTE

Store all hazardous wastes in sealed containers constructed of compatible material and labeled. The containers are located in non-flammable storage cabinets or on a containment pallet. These items include paint, aerosol cans, gasoline, solvents, and other hazardous wastes. Please refer to Chapter 3.F.3.e for vehicle-related hazardous wastes. Do not overfill containers. Paint brushes and equipment used for water and oil-based paints are cleaned within the designated cleaning area. Contain associated waste and other cleaning fluids within an enclosed tank. The tank is maintained by a private licensed special waste company.

SANITARY WASTE

Discharge sanitary waste a sanitary sewer or designated area managed by a licensed waste hauler.

TRIPLE BASINS

McHenry County has 4 locations of triple basins, including: MCDOT Facility, Animal Control facility, Sheriff's garage and Jail. Floor drains in the garage bay floor area of the 4 previously mentioned locations are directed to underground triple basins. The triple basins are contracted by each Facility for pumping and removing solids by a licensed waste hauler.

AMMUNITION STORAGE AND HANDLING

Ammunition is stored and handled in accordance with the manufacturer's specifications. Standards are governed by CALEA, ACA, and OSHA, in addition to the EPA requirements for outdoor ranges. The McHenry County Sheriff's Office uses EPA 902-b-01-001 "Best Management Practices for Lead at Outdoor Shooting Ranges" to protect surface and groundwater from lead contamination.

3.F.5 Flood Management/Assessment Guidelines

This minimum control measure (MCM) is not presently included in our permit program. This MCM will be reevaluated at a later date for possible inclusion.

3.F.6 Other Municipal Operations Controls

While this minimum control measure (MCM) is not presently acknowledged in our permit program, the County does apply BMPs for this MCM. At a later date, we will review current policies and procedures and consider including this minimum control measure in our five year program plan.

3.F.6.a Water Conservation & Irrigation

Water conservation practices minimize water use and help to avoid erosion and/or the transport of pollutants into the stormwater management system. McHenry County has two facilities that have underground irrigation: Valley Hi Nursing Home and the Administration Building. Each building has a soil moisture gauge for operations. Section III: Water Conservation of the Water Resources Action Plan can be found at www.mchenryh2o.com.

3.F.6.b Green Infrastructure

McHenry County completed the replacement of HVAC motors with higher efficiency motors, installation of a 15.4 KWH solar panels on the Administration Building, retrofitted lighting at MCDOT and new skylights. Installation of new windows, demand control ventilation for the courtrooms, and lighting occupancy sensors in all County facilities by the beginning of 2011. Equipment is added to the Facilities Management computerized maintenance system for preventive and corrective maintenance schedules as recommended per manufacturer.

In summer of 2011, McHenry County added a rain garden and xeriscape garden in the front of the Administration Building as a demonstration project for the rest of the county.

3.F.6.c Spill Response Plan

Spill prevention and control procedures are implemented wherever non-hazardous chemicals and/or hazardous substances are stored or used. These procedures and practices are implemented to prevent and control spills in a manner that minimizes or prevents discharge to the stormwater management system and/or receiving waters. The following general guidelines are implemented, when cleanup activities and safety are not compromised, regardless of the location of the spill:

- Cover and protect spills from stormwater run-on and rainfall, until they are removed;
- Dry cleanup methods are used whenever possible;
- Dispose of used cleanup materials, contaminated materials, and recovered spill material in accordance with the Hazardous Waste Management practices or the Solid Waste Management practices of this plan;
- Contaminated water used for cleaning and decontamination shall not be allowed to enter the stormwater management system;
- Keep waste storage areas clean, well organized, and equipped with appropriate cleanup supplies; and
- Maintain perimeter controls, containment structures, covers, and liners to ensure proper function.

3.F.6.d Non-Hazardous Spills/Dumping

Non-hazardous spills typically consist of an illicit discharge of household material(s) into the street or the stormwater management system. Upon notification or observance of a non-hazardous illicit discharge, County personnel implement the following procedure:

- Sand bag the receiving inlet to prevent additional discharge into the storm sewer system, as necessary. It may be necessary to sand bag the next downstream inlet.
- Check structures (immediate and downstream). If possible, materials are vacuumed out. The structure(s) are then jetted to dilute and flush the remaining unrecoverable illicit discharge.
- Clean up may consist of applying “Oil Dry” or sand and then sweeping up the remnant material.

- After the spill on a County right-of-way has been mitigated, all correspondence between departments is filed appropriately.
- If a person is observed causing an illicit discharge, Health Department is notified and the appropriate citation(s) is issued.

3.F.6.e Hazardous Spills

Upon notification or observance of a hazardous illicit discharge, the County follows the procedure below:

- Call 911, explain the incident. The fire department responds.
- The Sheriff or local police department provides emergency traffic control, as necessary.
- The fire department evaluates the situation and applies "No Flash" or "Oil Dry" as necessary.
- The fire department's existing emergency response procedure, for hazardous spill containment clean-up activities, is followed.
- The Sheriff or the local fire department documents the location, type of spill, and action taken submits directly to the IEPA.

4 Program and Performance Monitoring, Evaluation, and Reporting

The SMPP represents an organized approach to achieving compliance with the stormwater expectations of the NPDES Phase II program for both private and public activities within the County. Land development, redevelopment, and transportation improvement projects were required to comply with the provisions of the MCSMO prior to acceptance of the SMPP. Additionally, the County had numerous written and unwritten procedures for various tasks. This SMPP documents and organizes previously existing procedures and incorporates the objectives of the MCSMO and other procedure and policy manuals to create one cohesive program addressing pre-development, construction, post-development activities and municipal operations.

This chapter describes how the County will monitor and evaluate the proposed stormwater pollution prevention plan based on the above-stated objective. As part of the stormwater management program, the County:

- Reviews its activities;
- Inspects its facilities;
- Oversees, guides, and trains its personnel; and
- Evaluates the allocation of resources available to implement stormwater quality efforts.

This chapter describes how program monitoring, evaluation, and reporting will be accomplished.

4.A Performance Milestones

Previously established ordinances and programs implement many of the anticipated tasks. The following schedule describes general performance expectations.

- Training regarding the implementation of the SMPP is ongoing.
- Support public education, outreach, and involvement.
- Update the sewer maps to reflect changes.
- Keep updated maps and forms.
- Support training by all departments.
- Perform all inspections within our commitments according to the set schedule.

4.B Program Monitoring and Research

There are extensive monitoring efforts already underway across the County including efforts by the McHenry County Department of Health to monitor numerous lakes and beaches and the Fox River Study Group.

4.B.1 Fox River Study Group

In accordance with ILR40 V.A.2.b.x, the Fox River Study Group (FRSG), previously described in Chapter 2.D, satisfies the monitoring requirement for the portion of the community located within the Lower Fox River Watershed.

By agreement between the Illinois EPA and the FRSG, the Fox River Implementation Plan (FRIP) will take the place of a traditional TMDL for dissolved oxygen and nuisance algae in the Fox River. No written agreement has been implemented between the Illinois EPA and the FRSG regarding the FRIP, but the Illinois EPA has worked closely with the FRSG in developing the FRIP since 2001. Because the Illinois EPA's authority to implement and enforce the Clean Water Act comes from the federal government, the FRIP will need to be approved by the U.S. EPA before it officially replaces the TMDL process. The need for a TMDL will be revisited by IEPA after implementation of the FRIP, by evaluating whether the listed reaches are still impaired.

The ISWS developed a calibrated QUAL2K water quality model application for the Fox River (Bartosova, 2013). This model was used to simulate future Fox River water quality in response to management actions considered in the FRIP. In 2016, the FRSG will develop a strategy for future data collection and prepare written plan(s) that may potentially include additional water quality monitoring and discussion with IEPA and IDNR of biological data to assess actual condition of aquatic community and potentially identify gaps in existing biological data.

The County is committed to participating in the FRSG and supporting its efforts.

4.B.2 McHenry County Department of Health

In accordance with ILR 40 V.A.2.b.ii and ILR 40 V.A.2.b.v, the monitoring efforts performed by the McHenry County Department of Health satisfies the monitoring requirement for the portions of the watershed tributary to an assessed Lake. Due to the length of monitoring efforts performed by the county, trends in water quality impairments and improvements can be best gauged by reviewing current and historic lakes reports.

ANALYSIS

From May to September, bacteria concentrations are monitored bimonthly at inland beaches and recreational areas by the Health Department. Currently, 38 licensed beaches on 13 different lakes are being studied and data collected. The water samples are tested for E. coli bacteria, which are found in the intestines of almost all warm-blooded animals. Note that not all strains of E. coli are the same, and certain strains can make humans sick if ingested in high enough concentrations. If water samples come back high for E. coli (235 E coli/100 ml), the management body for the

bathing beach is notified and a sign is posted indicating the beach closure. Additionally, since rain events tend to lead to elevated bacteria levels in the water column, the County advises that persons avoid swimming for 48 hours after a large rain event.

The IEPA uses the number and duration of swim bans to assess whether or not the beaches support designated uses for primary contact recreation. Within Illinois, beaches are found to be "not supporting" of primary contact use when, on average over a three-year period: (1) one or more beach closures occurred per year lasting less than a 2 week; or (2) less than one beach closure occurred per year, but the average closure duration was one week or greater.

SUMMARY REPORTS

Lake summary reports can be found on the Health Department's website: https://www.co.mchenry.il.us/county-government/departments-a-i/health-department/environmental-health/public-beaches.

4.B.3 County Monitoring

A portion of the County is located outside of existing monitoring efforts. In accordance with ILR40 V.A.1, the County has compiled a list of all BMPs implemented throughout the MS4 area (Appendix 5.16). An estimate of pollution reduction resulting from the installation of the BMPs, utilizing published research, has also been provided in the appendix.

4.C Program Evaluation

At the end of each year, the BMPs implemented by the MS4 should be evaluated in order to determine the effectiveness of the program. Include a description of observed areas of program effectiveness, at the end of Part B Stormwater Management Program Assessment within each Annual Report submitted to IEPA. Program areas which do not appear to be improving should also be identified and described within this portion of the Annual Report. This information will be used to provide insight into how the program may need to evolve. The following are some indicators that the BMPs are appropriate.

- A reduced number of outfalls having positive indicators for potential pollutants.
- An improvement, or no change, in the annual monitoring results.
- Improved community awareness of water quality and other NPDES program aspects.
- Increased number of hits on website information related to the NPDES program.
- Increased quantities of Household Hazardous Wastes or Electronic collected by the County.
- Reduced number of septic system failures.
- Increased stakeholder involvement.
- Reduced number of SE/SC violations.
- Increase in streambank and shoreline stabilization projects, or a decrease in the extent of projects necessary.

- Improved detention pond quality (including conversion of dry bottom or turf basins to naturalized basins; removal of excess sediment accumulation and a general increase in maintenance activity on detention ponds throughout the MS4).
- Reduced use of chloride and phosphorus by the MS4.
- Improved awareness of water quality and other NPDES program aspects by both County staff and its contractors.

4.C.1 Monitoring Program Evaluation

The results of the monitoring are used to further gauge the effects of the SMPP on the physical/habitat-related aspects of the receiving waters and the effectiveness of BMPs. Possible causes of any documented degradation will be investigated and any appropriate corrective actions will be incorporated into future Stormwater Management Program Plan (SMPP). Additional documentation on TMDLs, an assessment of the regional and local water quality monitoring and watershed group efforts, an estimate of the effectiveness of the regional efforts will be included in the Annual Report Part C Annual Monitoring and Data Collection.

4.C.2 Illicit Discharge Detection and Elimination (IDDE) Program Evaluation

Experience gained from the USEPA NPDES program indicates a lower chance of observing polluted dry-weather flows in residential and newer development areas, while older and industrial land use areas have a higher incidence of observed dry-weather flows. Review the results of the screening program to examine whether any trends can be identified that relate the incidence of dry-weather flow observations to the age or land use of a developed area. If so, these conclusions may guide future outfall screening activities.

Indirect or subtle discharges such as flash dumping are difficult to trace to their sources and can only be remedied through public education and reporting. Therefore, it is expected that to some degree they will continue although at a reduced magnitude and frequency. Although the outfall screening program will be successful in identifying and eliminating most pollutants in dry-weather discharges, the continued existence of dry-weather flows and associated pollutants will require an ongoing commitment to continue the outfall screening program.

The first phase of the program was to complete the MS4-wide pre-screening effort, investigate those outfalls exhibiting dry-weather flow and then eliminate identified illicit direct connections. The ILR40 permit issued in 2016 requires that all high-priority outfalls be evaluated annually. It is logical to assume that after completion of the Phase 1 efforts and several years of annual screening, the majority of the dry-weather pollution sources will be eliminated. However, new sources may appear in the future as a result of mistaken cross connections from redevelopment, new development or remodeling. These efforts will determine the effectiveness of the program on a long-term basis and show ongoing improvement through a reduced number of outfalls having positive indicators of potential pollutants. Include a description of the screening and dry-weather flow investigation, in Annual Report Part C IDDE Monitoring and Data Collection submitted to IEPA annually.

4.C.3 SMPP Document Evaluation

The following types of questions/answers need to be discussed in the future, with respect to the SMPP, between the NPDES Coordinators and County Administration.

- Are proper stormwater management practices integrated into planning, designing, and constructing both County and private projects?
- Are efforts to incorporate stormwater practices into maintenance activities effective and efficient?
- Is the training program sufficient?
- Is the SMPP sufficient with respect to both the BMPs and measurable goals described for each of the six MCM?
- Are the procedures for implementing the SMPP adequate?
- Are there any TMDL Reports within the County's MS4 jurisdiction and if yes, is there an action plan for compliance?
- Were there any issues of non-compliance and if yes, determine the plan for achieving compliance with a timeline of actions?

Summary

Through education and outreach, the Water Resources Manager of MCP&D, Maintenance Superintendent of MCDOT, MCSEEP educational lesson plans, and Health Department targets a variety of different age and education levels of audiences. However, it is very hard to make a direct correlation of their impact on McHenry County waters.

The best tell-tale sign of our program's effectiveness is the health and quality of our streams. Those McHenry County streams on the Nationwide Rivers Inventory (NRI) have not lost their place on this list. Rush Creek and Piscasaw Creek are noted for their fishability and other naturalistic qualities with potential to be rated for recreation. The Fox River from Elgin to the West Dundee Dam has a high recreational value as well on this list. Since this section is downstream of McHenry County's entire eastern developed area and has not been downgraded, it is a testament to the efficacy of our stormwater and construction ordinances, in conjunction with our maintenance program and educational outreach efforts.

McHenry County is looking to partner with watershed groups and MCCD in the future to add more monitoring data to our program to continue to monitor the health of our major receiving waters; however, that coordination has not been initiated as of yet.

5 Appendices

5.1 List of Acronyms

BMP	Best Management Practice
CWA	Clean Water Act
DECI	Designated Erosion Control Inspector
EO	Enforcement Officer (McHenry County SMO)
HHW	Household Hazardous Waste
ID	Identification
IDDE	Illicit Discharge Detection and Elimination
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
ION	Incidence of Non-compliance (with IEPA)
IUM	Illinois Urban Manual
LOC	Letter of Credit (surety)
MCCD	McHenry County Conservation District
MCDOT	McHenry County Division of Transportation
MCHD	McHenry County Department of Health
MCP&D	McHenry County Department of Planning and Development
MCSC	McHenry County Stormwater Management Commission
MCSEEP	McHenry County Schools Environmental Education Program
MCSMO	McHenry County Stormwater Management Ordinance
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent (with IEPA)
NOT	Notice of Termination (with IEPA)
NPDES	National Pollutant Discharge Elimination System
PPE	Personal Protection Equipment
QLP	Qualifying Local Program
SE/SC	Soil Erosion and Sediment Control
SMPP	Stormwater Management Program Plan
TAC	Technical Advisory Committee
TRM	Technical Reference Manual
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency

5.2 General Permit 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

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

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

CONTENTS OF GENERAL PERMIT ILR40

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)

5.3 Distributed Paper Material

- Informational sheets/pamphlets regarding storm water best management practices:
    - "The Solution to Stormwater Pollution" USEPA – Division of Transportation brochure
    - "After the Storm" USEPA - Division of Transportation brochure
    - "Floodplains" County of McHenry – Dept. of Planning and Development brochure
    - "Wetlands" County of McHenry – Dept. Planning and Development brochure
    - "After the Flood" County of McHenry – Health Dept. brochure
    - "After the Flood" County of McHenry – Emergency Management Agency brochure
    - "Flash floods and floods… the Awesome Power!" - Emergency Management Agency brochure
    - "Stormwater Management Permit" - Dept. Planning and Development brochure

- Informational sheets/pamphlets regarding water quality best management practices:
    - "Residential Deicing" County of McHenry – Division of Water Resources brochure,
    - "Saving Water Saves Energy" – Water Sense Partner
    - "Water Conservation" – Division of Water Resources brochure
    - "Preparing your Lawn and Garden for Drought" – Division of Water Resources
    - "Coal Tar" County of McHenry – Division of Water Resources
    - "Phosphorus" County of McHenry – Division of Water Resources
    - "So You Are Applying for a Septic Permit" – Department of Health
    - "How to Disinfect a Private Water Supply" – Department of Health
    - "Everything You Wanted To Know About Your Septic System" – Department of Health
    - "Everything You Wanted To Know About Your Private Well System" – Department of Health
    - "West Nile Virus" – Department of Health
    - "Trees and Septics" – Department of Health
    - "Pool Dewatering" – Division of Water Resources

- Informational sheets/pamphlets regarding construction site activities (soil erosion and sediment control best management practices):
    - Stormwater Management Ordinance Technical Reference Manual – Department of Planning and Development

- Informational sheets/pamphlets regarding the hazards associated with illegal discharges and improper disposal of waste and the manner in which to report such discharges:
    - "Unused and Expired Medications" County of McHenry – Division of Water Resources brochure
    - "How to Dispose of Medicines Properly" County of McHenry – Division of Water Resources brochure
    - "Proper Disposal of Animal Waste" County of McHenry – Division of Water Resources brochure

5.3 Distributed Paper Material (cont.)

  - "Household Hazardous Waste" County of McHenry – Division of Water Resources brochure

- Informational sheets/pamphlets regarding green infrastructure strategies such as green roofs, rain gardens, rain barrels, bioswales, permeable piping, dry wells and permeable pavement:
  - "Water Friendly Landscaping Alternatives" County of McHenry – Division of Water Resources brochure
  - "Lawn Care" County of McHenry – Division of Water Resources brochure
  - "Conservation Design" County of McHenry – Division of Water Resources brochure
  - "Outdoor Water Conservation" County of McHenry – Division of Water Resources brochure

- A water quality/stormwater section in the County online newsletter

- Informational booklet on pollution prevention:
  - "2004 Emergency Response Guidebook" Emergency Management Agency brochure

- Other educational information distributed:
  - "Green Guide" McHenry County College – Division of Water Resources booklet
  - "Climate Change & You – What You Can Do At Home" USEPA – Division of Water Resources handout

5.4 Speaking Engagements

Water ResourcesDivision

- Erosion Control Workshop – March 30, 2016
- McHenry-Lake County SWCD Wetland Workshop – August 3, 2016
- Stormwater Dept. Staff Wetland Training – October 5, 2016
- McHenry County Youth Groundwater Festival – October 13, 2016
- Sensible Salting Workshop – November 1& 2, 2016
- Sensible Salting Presentation for Loyola Winter Class – January 12, 2017

Division of Transportation

- MCRide presentation to teachers of visually impaired students (Hannah Martin School) – March 2016
- Veterans' Resource Fair at McHenry VFW – April 2016
- Environmental Defenders Transportation Committee – September 2016
- Snow and Ice Operators Training (MCDOT Education Program) – September 2016
- People in Need Forum – January 2017
- Transit/MCRide for Coalition of Care to End Homelessness – February 2017
- Transit/MCRide for Huntley District 158 staff, parents and visually impaired students – February 2017

Department of Health

- Illinois Department of Agriculture, Special Application of Solid Mosquito Larvicide Application Training: May 24, June 8, June 9, 2016

Emergency Management Division

Animal Control

Sheriff

5.5 Articles

Division of Transportation

- Facebook page has numerous articles including Adopt-A-Highway program highlights, salt storage and usage, road construction updates, storm drainage maintenance, street sweeping activities, and recycling events.

Water Resources Division

- New Stormwater Ordinance in Effect: April 5, 2016
- McHenry County Endorses Plan to Improve Water Quality in the Fox River: November e-newsletter

Department of Health

- Reduced Fee Water Testing Offered in April: March 30, 2016
- Open Burning Restrictions: April 5, 2016
- National Prescription Drug Take-Back Day: April 22, 2016
- Beach Results Press Release: May 27, 2016
- One Area Beach Closed Due to Elevated Bacteria Levels Press Release: June 10, 2016
- One Area Beach Closed Due to Elevated Bacteria Levels: June 24, 2016
- Beach Results: July 1, 2016
- Free Residential Document Destruction and Battery Recycling Event: July 7, 2016
- Reduced Fee Water Testing Offered During August: August 1, 2016
- Beach Closure – Park and Beach, McCullom Lake: August 5, 2016
- Beaches Closed Due to Elevated Bacteria Levels: August 19, 2016
- Beach Closed Due to Elevated Bacteria Levels: September 2, 2016
- Holiday Lights Recycling 2016-2017: December 16, 2016

Emergency Management Division

Animal Control

Sheriff

Administration Department

- Facebook page has numerous articles including links to the monthly countywide newsletter, Hazard Mitigation Plan Update meeting reminders, Christmas tree, tire, medication and battery recycling activities, and free water testing events.

5.6 Master List of Ponds, Detention/Retention Facilities, Stream Channel Outfalls, and Storm Drainage Outfalls and Stormwater Outfall Inspection Form

1. **Algonquin Road over Gravel Pit Creek Str # 056-3166**
2. **Algonquin Road over Crystal Creek Str # 056-3165**
3. Algonquin Road over Woods Creek (east of Randall Road) Str # 056-3164
4. Algonquin Road over Woods Creek (west of Randall Road) Str # 056-3172
5. Randall Road over Woods Creek Str # 056-3204
6. Randall Road over Tributary to Woods Creek Str # 056-3206
7. **Rakow Road over Crystal Creek Str # 056-3157**
8. Lakewood Road over South Branch Kishwaukee Creek
9. Main Street over South Branch Kishwaukee River Str # 056-3018
10. Marengo Road over South Branch Kishwaukee River
11. Harmony Road over Tributary to Coon Creek Str # 056-3170
12. Maple Street over Tributary to Coon Creek Str # 056-3027
13. Harmony Road over Coon Creek Str # 056-3138
14. Genoa Road over Tributary to Spring Creek
15. Coral Road over Tributary to Riley Creek
16. South Union Road over Tributary to West Branch Union Creek
17. Marengo Road over West Branch Union Creek East
18. Marengo Road over Tributary to West Branch Union Creek East Str # 056-3160
19. Marengo Road over East Branch Union Creek East
20. South Union Road over the South Branch Kishwaukee River Str # 056-3178
21. Franklinville Road over Kishwaukee River Str # 056-3017
22. Franklinville Road over Franklinville Creek Str # 056-3016
23. Union Road over Kishwaukee River Str # 056-3026
24. Garden Valley Road over North Branch Kishwaukee River Str # 056-3028
25. Millstream Road over Kishwaukee River Str # 056-3022
26. Millstream Road over South Branch Kishwaukee River Str # 056-3023
27. Deerpass Road over Kishwaukee River Main Channel Str # 056-3030
28. Deerpass Road over Kishwaukee River Auxiliary Channel Str # 056-3029
29. Kishwaukee Valley Road over Mud Creek Str # 056-3203
30. Kishwaukee Valley Road over Rush Creek Str # 056-3150
31. Kishwaukee Valley Road over Tributary to Rush Creek Str # 056-3202
32. Kishwaukee Valley Road over North Branch Kishwaukee River Str # 056-3177
33. Dunham Road over North Branch Kishwaukee River Str # 056-3179
34. McGuire Road over Tributary to Rush Creek
35. McGuire Road over Rush Creek Str # 056-3008
36. Flat Iron Road over Mokeler Creek Str # 056-3019
37. Hunter Road over Little Beaver Creek Str # 056-3034
38. Lawrence Road over Tributary to Lawrence Creek Str # 056-3012
39. Lawrence Road over Lawrence Creek Str # 056-3181
40. Lawrence Road over Piscasaw Creek Str # 056-3010
41. Lawrence Road over West Branch Piscasaw Creek Str # 056-3020
42. Lawrence Road over West Branch Piscasaw Creek (No STR #)
43. Alden Road over Tributary to Nippersink Creek

5.6 Master List of Ponds, Detention/Retention Facilities, Stream Channel Outfalls, and Storm Drainage Outfalls and Stormwater Outfall Inspection Form (cont.)

44. Oak Grove Road over Tributary to Nippersink Creek (headwaters west of Reece Road)
45. Oak Grove Road over Tributary to Nippersink Creek (east of Wright Road)
46. Alden Road over Nippersink Creek Str # 056-3174
47. Altenburg Road over North Branch Kishwaukee River
48. Durkee Road over Tributary to North Branch Kishwaukee River
49. Johnson Road over Nippersink Creek Str # 056-3128
50. Alden Road over Tributary to North Branch Kishwaukee River
51. McGuire Road over North Branch Kishwaukee River Str # 056-3161
52. Alden Road over Headwaters of Slough Creek
53. Nelson Road over Slough Creek Str # 056-3201
54. Charles Road over Slough Creek Str # 056-3006
55. Charles Road over Silver Creek Str # 056-3211
56. Greenwood Road over Nippersink Creek Str # 056-3155
57. Tryon Grove Road over Tributary to Nippersink Creek
58. Keystone Road over Tributary to North Branch Nippersink Creek
59. Tryon Grove over Tributary to Nippersink Creek
60. Tryon Grove over Tributary to Nippersink Creek (just east of #63)
61. Blivin Street over Nippersink Creek Str # 056-3191
62. Wilmot Road over Nippersink Creek Str # 056-3001
63. Johnsburg Road over Dutch Creek Str # 056-3159
64. Johnsburg Road over Tributary to Dutch Creek
65. Chapel Hill Rd over Fox River Str # 056-3134
66. Bay Road over Lily Lake Drain Str # 056-3106
67. Bull Valley Road over Tributary to Fox River
68. Charles J. Miller Road over Fox River Str # 056-3149
69. Charles J. Miller Road over Fox River Str # 056-3190
70. River Road over Defiance Lake Stream Str # 056-3000
71. River Road over Tributary to Fox River
72. River Road over Griswold Lake Stream
73. Roberts Road over Tributary to Fox River
74. Walkup Road over Sleepy Hollow Creek

A. Algonquin Road Pond at SE corner Hanson Road
B. Algonquin Road (3 ponds in series) east of Church Street
C. Algonquin Road pond west of Church Street
D. Rakow Road pond on NW corner McHenry Avenue
E. Rakow Road pond on NE corner Pyott Road
F. Animal Control Facility pond
G. Charles J. Miller Road pond west of Green Street
H. Charles J. Miller Road pond 500' east of Green Street
I. Walkup Road Pond east side south of Anvil Drive

5.6 Master List of Ponds, Detention/Retention Facilities, Stream Channel Outfalls, and Storm Drainage Outfalls and Stormwater Outfall Inspection Form (cont.)

J. Walkup Road Pond east side south of Raintree Drive
K. Walkup Road Pond east side north of Mason Hill Road
L. Walkup Road Pond east side south of Patriot Estates
M. County Administration Building Pond south side of building
N. County Administration Building 2 ponds on north side of building parking area
O. County Court Facility pond fronting IL 47
P. Health Department inline detention pond east along entire parking lot
Q. Health Department pond southwest of entrance
R. County Records Storage facility fronting Nelson Road
S. Valley Hi Nursing Home pond
T. McHenry County Division of Transportation west pond
U. McHenry County Division of Transportation south ponds
V. Johnsburg Road bioswale on south side, 330' feet west of Spring Grove Road
W. Route 31 Park&Ride lot bio-surface and 3 settling basins west side, south of Virginia Rd.

Inspection sites shown in **BOLD** are High Priority areas that are monitored annually. The remaining areas will be monitored, on a rotating basis, so that all outfalls/ponds/basins are monitored at least once in a five-year cycle.

5.7 Design and Implementation Guidelines Above and Beyond the MCM4 Minimum Control Measures

Design standards by the following agencies:

- U.S. Army Corps of Engineers;
- Illinois Environmental Protection Agency;
- Illinois Department of Natural Resources;
- Illinois Department of Transportation Standards;
- Illinois Urban Manual;
- McHenry-Lake County Soil and Water Conservation District; and
- McHenry County Department of Planning and Development.

Reference information includes, but is not limited to, the following sources:

- Native Plant Guide;
- McHenry County Dept. of Planning and Development's Technical Reference Manual;
- Illinois Urban Manual;
- McHenry County Dept. of Planning and Development's and/or MCDOT's:
    - Soil erosion and sediment checklist;
    - Soil erosion and sediment control notes; and
    - Typical construction sequencing;
- Chicago Metropolitan Agency for Planning (previously Northeastern Illinois Planning Commission) Course Manuals;
- IDOT manuals;
- Center for Watershed Protection documents; and
- IEPA and USEPA publications.

5.8 Stormwater Pollution Prevention Plan/Soil Erosion and Sediment Control Inspection Form Example

Field Observation Report

SMO Permit #	PERMIT #	**USACE Reference #**	USACE Permit #	**NPDES Permit #**	NPDES Permit #
SMO Permit Issued To	SMO Permitte	**Inspection Log Compliant**	☐Yes ☐No	**SWPPP Compliant**	☐Yes ☐No
Community Name	Community Name	**Enforcement Officer**	E.O. Name	**Observer:**	Name of Inspector
Permitted Plan Information	Permitted Plan Set – date, title, # of sheets, etc.				

Date & Time of Inspection	Date & Time of Inspection	**Weather Conditions**	Weather & Temperature	**24hr Rainfall**	Inches of Rain
Reason for Inspection	☐ Weekly ☐ Rain ☐ Other (explain)		**Stage of Construction**	Pre-Construction	

Project Name	Project Name	**Enforcement Officer Information**	Enforcement Officer Name/Phone/Email
Address/Location	Address/Location of the project site and the nearest intersection		
Field Contact Information	Field contact name and phone/Email	**SE/SC Contractor Information**	Primary SE/SC Contractor contact information
DECI Information	Designated Erosion Control Inspector contact information		
In Attendance	Who attended Inspection		

Disturbed Area	Area of Disturbance	**Disturbed Area Permitted**	Overall Permitted Disturbance	**Site Area**	Size of Site
Floodplain/Floodway On Site	☐Yes ☐ No	**IWLC On Site/Adjacent**	☐Yes ☐ No	**WOUS On Site/Adjacent**	☐Yes ☐No
Floodplain/Floodway Impact	☐Yes ☐ No ☐ N/A	**IWLC Impacted**	☐Yes ☐ No ☐ N/A	**WOUS Impacted**	☐Yes ☐No ☐N/A
Violation Correction Time	☐ 1 day ☐ 3 day ☐ 7 day ☐ 10 day ☐ 30 day ☐ _____			**Violation Rating**	0 - No Violation ☐ Notify E.O.
Water Sample NTU Reading	____ NTUs ☐ N/A	**Photos Taken**	☐Yes ☐ No	**Next Site Visit**	Days until next Inspection

Follow up Needed	Note follow up needed, ie; violation,E.O. notification, etc. - & who is responsible	Compliant ☐	Non-Compliant ☐
Copy Report To:	Note who should receive an email copy of this report		

Concrete Washout	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Construction Entrance/Pavement**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Construction Sequencing	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Detention/Sediment Basin**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Dewatering Facility	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Ditch Checks**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Dust Control	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**ECB/TRM Installation**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Inlet Protection	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Offsite Tracking/Offsite Impacts**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Perforated Riser	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Polyacrylamide Application**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
SE/SC Installation	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**SE/SC Maintenance**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Soil Stockpile Stabilized/Protected	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Stabilization Measures**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Stormwater System (sewer, swale, etc.)	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Turbidity Curtain**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Vegetative Cover	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Wetland Buffers Protected**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A
Wetland/Waters Protection	☐ Satisfactory ☐ Unsatisfactory ☐ N/A	**Other (not listed)**	☐ Satisfactory ☐ Unsatisfactory ☐ N/A

Observations:

Concrete Washout	☐ Yes ☐ No ☐N/A
• Is there an available on site concrete washout?	☐ Yes ☐ No ☐N/A
• Is the concrete washout self-contained?	☐ Yes ☐ No ☐N/A
• Is the concrete washout well maintained and functional?	☐ Yes ☐ No ☐N/A
Construction Entrance/Pavement	
• Are all ingress and egress points covered by a temporary construction entrance?	☐ Yes ☐ No ☐N/A
• Is the entrance constructed with 3" coarse aggregate?	☐ Yes ☐ No ☐N/A
• Has an appropriate geotextile material been installed underneath the stone?	☐ Yes ☐ No ☐N/A
• Is the entrance appropriately sized, both in width and length?	☐ Yes ☐ No ☐N/A
• Is the entrance adequately preventing tracking of dirt, mud, and sediment onto roadways?	☐ Yes ☐ No ☐N/A
Construction Sequencing	
• Is the project in step with the approved/permitted construction sequencing?	☐ Yes ☐ No ☐N/A
• Does the construction sequencing best utilize SE/SC performance?	☐ Yes ☐ No ☐N/A
• Is the stormwater management system for the project installed and functional?	☐ Yes ☐ No ☐N/A
Detention/Sediment Basin	
• Is the basin installed?	☐ Yes ☐ No ☐N/A
• Is the basin adequately stabilized?	☐ Yes ☐ No ☐N/A
• Is there evidence of sufficient coverage of native vegetation?	☐ Yes ☐ No ☐N/A
• Is the emergency overflow constructed with the required materials?	☐ Yes ☐ No ☐N/A
Dewatering Facility	
• Is dewatering directly entering a waterway or wetland?	☐ Yes ☐ No ☐N/A
• Are dewatering activities conveying sediment laden water?	☐ Yes ☐ No ☐N/A
• Are appropriate dewatering BMP's in place and functioning effectively?	☐ Yes ☐ No ☐N/A
• If a sediment bag is being used, is it capturing sediment effectively?	☐ Yes ☐ No ☐N/A
Ditch Checks	
• Are ditch checks installed at all required locations, as needed?	☐ Yes ☐ No ☐N/A
• Are ditch checks installed correctly?	☐ Yes ☐ No ☐N/A
• Are ditch checks being maintained/cleaned routinely?	☐ Yes ☐ No ☐N/A
Dust Control – sweeping, vacuuming, spraying, etc.	
• Are dust control measures being used as needed?	☐ Yes ☐ No ☐N/A
• Is dust observed moving offsite due to wind?	☐ Yes ☐ No ☐N/A
• Are roadways being swept or swept and vacuumed when needed?	☐ Yes ☐ No ☐N/A
ECB/TRM Installation	
• Are all Erosion Control Blanket or Turf-Reinforcement Mats installed per plan?	
• Are all ECB/TRM installed with the correct staple pattern?	☐ Yes ☐ No ☐N/A
• Are all ECB/TRM properly trenched in where necessary?	☐ Yes ☐ No ☐N/A
• Are all ECB/TRM installed perpendicular to the slope?	☐ Yes ☐ No ☐N/A
Inlet Protection – Catch-All basket, filter, silt fence, silt dike, straw bales, gravel dam, etc.	
• Are all storm sewer inlets that are or will be functional during construction protected?	☐ Yes ☐ No ☐N/A
• Is the inlet protection installed correctly to protect the entire inlet?	☐ Yes ☐ No ☐N/A
• Is the inlet protection being maintained?	☐ Yes ☐ No ☐N/A

Offsite Tracking/Offsite Impacts	
• Are all permitted overland flow routes constructed?	☐ Yes ☐ No ☐N/A
• Are all permitted overland flow routes free from obstruction?	☐ Yes ☐ No ☐N/A
• Are all permitted overland flow routes stabilized?	☐ Yes ☐ No ☐N/A
• Are all pre-construction overland flow routes protected?	☐ Yes ☐ No ☐ N/A
• Are all pre-construction overland flow routes free from obstruction?	☐ Yes ☐ No ☐ N/A
• Are all points of offsite drainage (i.e. water leaving the site) stabilized?	☐ Yes ☐ No ☐ N/A
• Are all points of offsite drainage protected from erosion and sedimentation?	☐ Yes ☐ No ☐ N/A
• Are all offsite access points free from erosion and/or sedimentation?	☐ Yes ☐ No ☐ N/A
Perforated Riser	
• Is the perforated riser installed at the outlet?	☐ Yes ☐ No ☐N/A
• Is the perforated riser sized correctly (one pipe size smaller than the outlet pipe)?	☐ Yes ☐ No ☐ N/A
• Is the perforated riser wrapped in hardware cloth or chicken wire, and filter fabric?	☐ Yes ☐ No ☐ N/A
• Is the perforated riser adequately mortared in?	☐ Yes ☐ No ☐ N/A
• Is there an adequate amount of stone at the base of the riser?	☐ Yes ☐ No ☐ N/A
Polyacrylamide Application	
• Are polyacrylamides (PAMs) being used per plan?	☐ Yes ☐ No ☐ N/A
• Are PAMs being appropriately contained and are flocculated sediments being captured?	☐ Yes ☐ No ☐ N/A
• Are PAMs systems being properly maintained?	☐ Yes ☐ No ☐ N/A
SE/SC Installation	
• Are all perimeter soil erosion/sediment controls in place and maintained?	☐ Yes ☐ No ☐ N/A
• Are adjacent wetlands/waters/properties being impacted by SE/SC failures?	☐ Yes ☐ No ☐ N/A
• Are all site SE/SC controls installed correctly?	☐ Yes ☐ No ☐ N/A
• Does the silt fence meet the AASHTO 288-00 Standard?	☐ Yes ☐ No ☐ N/A

SE/SC Maintenance	
• Is silt fence maintained and kept free of sediment buildup?	☐ Yes ☐ No ☐N/A
• Are ditch checks maintained and cleaned?	☐ Yes ☐ No ☐N/A
• Is the perforated riser fabric clear of sediment blinding and functional?	☐ Yes ☐ No ☐N/A
• Is the construction entrance clean and functional?	☐ Yes ☐ No ☐N/A
Soil Stockpile Stabilized/Protected	
• Is the soil stockpile located in an approved location (ie. not in floodplain or wetland)?	☐ Yes ☐ No ☐N/A
• Is the soil stockpile adequately stabilized?	☐ Yes ☐ No ☐N/A
• Is the soil stockpile properly enclosed with silt fence?	☐ Yes ☐ No ☐N/A
Stabilization Measures	
• Have all disturbed areas been stabilized with temporary or permanent measures within 14 days of the end of active hydrologic disturbance?	☐ Yes ☐ No ☐N/A ☐ Yes ☐ No ☐N/A
• Are stabilization measures effective?	☐ Yes ☐ No ☐N/A
• Are there areas of disturbance that need additional stabilization measures?	☐ Yes ☐ No ☐N/A
Stormwater System (sewer, swale, etc.)	
• Is the stormwater management system installed and functional, prior to building construction?	☐ Yes ☐ No ☐N/A
• Are all points of concentrated discharge appropriately installed for energy dissipation?	☐ Yes ☐ No ☐N/A
• Are all inlets and catch basins adequately protected from sediment conveyance into the system?	☐ Yes ☐ No ☐N/A
• Is hydrocarbon removal technology in place, functional and maintained where needed?	☐ Yes ☐ No ☐N/A

Turbidity Curtain	
• Is the turbidity curtain installed per plan, in the correct location?	☐ Yes ☐ No ☐N/A
• Is the turbidity curtain maintained clear of debris?	☐ Yes ☐ No ☐N/A
• Is the turbidity curtain properly and securely anchored?	☐ Yes ☐ No ☐N/A
• Is the turbidity curtain holding/floating above the water surface?	☐ Yes ☐ No ☐N/A
Vegetative Cover	
• Is vegetative cover adequate, based on application, species, and time of year?	☐ Yes ☐ No ☐N/A
Wetland Buffers Protected	
• Are all required wetland buffers protected?	☐ Yes ☐ No ☐N/A
• Are all required wetland buffers free of erosion and/or sedimentation?	☐ Yes ☐ No ☐N/A
• Are all required wetland buffers free of unpermitted disturbance?	☐ Yes ☐ No ☐N/A
Wetlands/Waters Protection	
• Are all delineated wetlands on site protected by 4' IDOT Standard Construction Fencing?	☐ Yes ☐ No ☐N/A
• Are all adjacent offsite wetlands protected from impact?	☐ Yes ☐ No ☐N/A
• Are illicit discharges into wetlands or bodies of water being prevented?	☐ Yes ☐ No ☐N/A
• Are wetland buffers protected?	☐ Yes ☐ No ☐N/A
Other	
• Other SE/SC concerns or issues (please explain in the text box on page one, or below)	☐ Yes ☐ No ☐N/A
Explain:	

Inspector's Signature _____ **Date of Inspection** _____

5.9 Department Training

Water Resources Division [Educational Event (Attendance)]

- IAFSM-FEMA Benefit-Cost Analysis Workshop – March 8, 2016 (1)
- IAFSM Conference – March 9-10, 2016 (3)
- CWP Webinar – Surviving a MS4 Compliance Audit – March 16, 2017 (1)
- Annual Fox River Summit – March 18, 2016 (1)
- Erosion Control Workshop – March 30, 2016 (2)
- USDA-NRCS NADS: Wetland Restoration & Enhancement – May 16-20, 2016 (1)
- Enforcement Officer & NPDES Training – June 9, 2016 (3)
- Customer Service Training – July 27, 2016 (1)
- McHenry-Lake County SWCD Wetland Workshop – August 3, 2016 (2)
- McHenry County Groundwater Festival – October 13, 2016 (2)
- Wetland Training (SWCD) – October 5, 2016 (2)
- USDA-NRCS Prescribed Burn Awareness Training – October 25-27, 2016 (1)
- Sensible Salting Workshop – November 1 and 2, 2016 (1)
- CMAP Pollutant Load & Load Reduction Modeling for Watershed-based Plans Workshop – December 12, 2016 (1)
- USDA-NRCS Form 1026 & Wetland Procedures Training – February 7, 2017 (1)
- HLR-MS4 Compliance, Drones, Full Reclamation – February 16, 2017 (1)
- Kane-DuPage County SWCD Water Resources Workshop – February 28, 2017 (1)
- Accumulation/compilation of required CEUs and PDHs to maintain Lake County Wetland Specialist Certification – Ongiong (3)

Department of Health [Educational Event (Attendance)]

- New Sanitarian Training – March 22, 2016 (3)
- Onsite Wastewater Treatment System New Practitioner Training – May 20, 2016 (3)
- New Sanitarian Training – October 6, 2016 (4)
- Onsite Wastewater Treatment System New Practitioner Training, Field – October 13, 2016 (2)
- IEPA CCDD/USFO Regulations Training – November 30, 2016 (2)
- 2016 Plumbing and Wastewater Conference – December 13, 2016 (2)
- New Sanitarian Level 1 Training – December 30, 2016 (1)
- Onsite Wastewater Treatment Conference – January 12 and 13, 2017 (3)
- LaSalle County On-Site Wastewater Workshop – February 16, 2017 (5)

Division of Transportation [Educational Event (Attendance)]

- Vactor Vehicle Operations Training – March 2016 (3)
- Pesticide/Herbicide Applicators Certification Training – April 2016 (6)
- IAEP USACE Wetland Regulatory Update – May 2016 (1)
- Stormwater Management Ordinance 2016 Amendments – May 2016 (1)
- Structures: Erosion Control Class – September 2016 (2)
- Snow and Ice Operators Training – September 2016 (25)
- Street Sweeping Vehicle Operations – September 2016 (3)
- Snow and Ice Managerial Training – October 2016 (2)
- Waters of the US Update – December 2016 (1)

5.9 Department Training (cont.)

Division of Transportation [Educational Event (Attendance)] - continued

- Soils Field Testing and Inspection – January 2017 (2)
- Municipal Separate Storm Sewer Systems Compliance Seminar – February 2017 (1)
- Accumulation/compilation of required CEUs and PDHs to maintain Lake County Wetland Specialist Certification – Ongiong (1)

Facilities Management [Educational Event (Attendance)]

Emergency Management Division

- Natural Hazard Mitigation Plan Update Meeting – March 3, 2016
- Pipeline Emergency Response –March 15, 2016
- FEMA Virtual Flood Exercize – March 24, 2016
- Social Media for Natural Disaster Response and Recovery – May 5, 2016
- MABAS Hazards Materials Deployment – June 20, 2016
- Debris Management Plan Development – November 14, 2016
- Sustainability Studies – February 2, 2017

Sheriff's Office

- All operational staff from Corrections and Merited ranks are required to maintain current certification in Blood Borne Pathogens. Training is provided biennially for certification, and several times during the year in roll call settings. Non-operational staff is trained according to their assignments or on a voluntary basis.
- The Evidence Division is responsible for the handling and destruction of Narcotics. The Narcotics are stored in a humidity/temperature controlled environment inside the property of the Sheriff's Office. The disposal of narcotics is done through the utilization of the State Police crime lab, the Coroner's Office, and incineration.

Sheriff's Garage

- Upon hire, all new employees are trained on departmental policies and procedures.

Animal Control

- Proper waste disposal.

Coroner

- The Evidence Division is responsible for the handling and destruction of Narcotics. The Narcotics are stored in a humidity/temperature controlled environment inside the property of the Sheriff's Office. The disposal of narcotics is done through the utilization of the State Police crime lab, the Coroner's Office, and incineration.

5.10 McHenry-Lake County Soil and Water Conservation District Soil Erosion and Sediment Control Inspections

SWCD file number	NPDES number	County Stormwater permit number	Applicant name	Date
16-108-114	ILR10W793	SW16-0015	Stan Szaflarski	4/19/16
16-110-116	N/A	SW16-0046	Rich Schwan	6/13/16
16-111-117	ILR10W565		NiGas Harmony Hill Rd and Brier Hill Rd	6/10/16
16-113-119	ILR10X082	SW16-0042	Chicago Prime	7/5/16
16-114-120	ILR10X291	J-6742	McHenry Heating & Excavation	7/27/16
16-115-121	ILR10W832	SW16-0041	Meadowland Church	7/28/16
16-116-122	ILR10X369	J-6698	Seegers Limited	8/1/16
16-117-123	N/A		Valley Aggregates	8/24/16
16-118-124	N/A	SW16-0071	Mike Weyrauch	9/29/16
16-119-125	ILR10X825	SW16-0098	Herchenbach Family trust	12/30/16
17-001-126	N/A	N/A	Sun Valley	1/6/17
17-002-127	N/A	J-6599	Barrington Hills HARPS	1/10/17
17-003-128	N/A		MCCD	2/28/17

5.11 Street Sweeping Schedule and Map

This information can be obtained through the MCDOT Drainage Engineer.

5.12 List of Primary Drainageways

Kishwaukee River Watershed

1. Kishwaukee River
2. North Branch Kishwaukee River
3. South Branch Kishwaukee River
4. Rush Creek
5. Kishwaukee Creek
6. Piscasaw Creek
7. West Branch Piscasaw Creek
8. Lawrence Creek
9. Mokeler Creek
10. Geryune Creek
11. Little Beaver Creek
12. Coon Creek
13. Riley Creek
14. Spring Creek
15. Williamson Creek
16. Franklinville Creek
17. Union Creek East
18. Newman Creek

Fox River Watershed

19. Nippersink Creek
20. North Branch Nippersink Creek
21. Slough Creek
22. Silver Creek
23. Sleepy Hollow Creek
24. Boone Creek
25. Powers Creek
26. Dutch Creek
27. Fox River
28. Cotton Creek
29. Cary Creek
30. Crystal Creek (Crystal Lake Outlet)
31. Woods Creek
32. Spring Creek
33. Lily Lake Drain
34. Defiance Lake Stream
35. Griswold Lake Stream

5.13 Storm Sewer Atlas and Outfall Inventory Map

The Storm Sewer Atlas and Outfall Inventory Map refers to those outlets and ponds listed in Appendix 5.6 and can be obtained from the MCDOT.

5.14 Illinois General Permit 87—Stormwater Runoff and Pollutants

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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

217/782-0610

November 1, 2016

McHenry County Division of Transportation
Attn: Ed Markison
16111 Nelson Road
Woodstock, Illinois 60098

RE: McHenry County Division of Transportation
NPDES Permit No. ILG870174
Notice of Coverage under the Pesticide Application Point Source Discharges General Permit

Permittee:

The Illinois Environmental Protection Agency has reviewed your NOI and determined that the pesticide application discharges described therein are appropriately covered by a General NPDES Permit issued by the Agency. A copy of the General Permit is enclosed.

The General Permit includes discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the permit could result in civil and/or criminal penalties. The Agency is ready and willing to assist you in interpreting any of the conditions of the permit as they relate specifically to your discharge.

The permit is applied to your discharge effective on the date of this letter or as identified by the conditions of the Permit. You have the right to appeal the Agency's decision to cover your discharge by the General Permit to the Illinois Pollution Control Board within a 35 day period following the date of this letter.

This letter shows your NPDES Permit number, please reference this number in all future correspondence. Should you have any questions concerning the Permit, please contact Jane Churchill at 217/782-0610.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control
SAK:JSC:N:ILG870174.docx

Enclosure: General Permit

cc: Compliance Assurance Section
Records Unit
Des Plaines Region

NPDES Permit No. ILG87

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
For
Pesticide Application Point Source Discharges

Expiration Date: October 31, 2021

Issue Date: October 14, 2016

Effective Date: November 1, 2016

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

This permit is available to operators who discharge to waters of the State from the application of biological pesticides or chemical pesticides that leave a residue, when the pesticide application is for one of the following pesticide use patterns:

1. Mosquito and Other Insect Pest Control
2. Weed and Algae Pest Control
3. Animal Pest Control
4. Forested Areas Pest Control
5. Other Pest Control Activities

Discharges may be authorized to any surface water of the State excluding waters identified as impaired by that pesticide or its degradates. This permit does not authorize discharges, to any waters of the State which are designated as a outstanding resource water by the Agency in accordance with 35 Ill. Adm. Code 302.105(b).

To receive authorization to discharge under this general permit, an operator must submit the proper application form to the Illinois Environmental Protection Agency. Authorization, if granted, will be by letter and include a copy of this permit.

Alan Keller

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Manager, Permit Section
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1.0 Coverage under this Permit

This permit covers any operator that meets the eligibility requirements identified in Part 1.1 and if so required, submits a Notice of Intent (NOI) in accordance with Part 1.2.

For the purpose of this permit, all operators are defined in Appendix A to be:

a. The person(s) with control over the hiring of a contract applicator, or making the decision to perform pesticide applications, including the ability to modify those decisions, that results in a discharge to waters of the State, and/or

b. The person(s) who performs the application of pesticides or who has day-to-day control of the pesticide application, that results in a discharge to waters of the State.

If the operator under part "a" of the definition is different than the operator actually performing the application of pesticides, only one of the two is required to obtain coverage under this permit.

This permit is not applicable for general use or restricted use pesticides that under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), are not registered for application to or use in waters of the State.

Pursuant to section 12(f) of the Illinois Environmental Protection Act, no permit shall be required for any discharge for which a permit is not required under the Federal Water Pollution Control Act.

1.1 Eligibility

1.1.1 Activities Covered

This permit is available to operators who discharge to waters of the State from the application of (1) biological pesticides or (2) chemical pesticides that leave a residue (collectively called pesticides), when the pesticide application is for one of the following pesticide use patterns:

1. **Mosquito and Other Insect Pest Control** – to control public health/nuisance and other insect pests that develop or are present during a portion of their life cycle in or above standing or flowing water. Public health/nuisance and other insect pests in this use category include but are not limited to mosquitoes and black flies.

2. **Weed and Algae Pest Control** – to control weeds, algae, and pathogens that are pests in water and at water's edge, include but are not limited to ditches and/or canals.

3. **Animal Pest Control** – to control animal pests in water and at water's edge. Animal pests in this use category include, but are not limited to fish, lampreys, insects, mollusks, and pathogens.

4. **Forested Areas Pest Control** – application of a pesticide to a forested area to control the population of a pest species, (e.g., insect or pathogen) where, to target the pests effectively, a portion of the pesticide unavoidably will be applied over and deposited to water.

5. **Other Pest Control Activities** – any application of pesticides not identified above, which leave a residue, to waters of the State or at the water's edge.

A portion of every application of a pesticide over a water of the State will fall directly into the water of the State thereby requiring coverage under an NPDES permit. Any person who wishes to contest this determination must submit scientific data to prove that no quantity of the pesticide falls into a water of the State. A permit may not be necessary if IEPA receives scientific information which convinces the Agency that no portion of a chemical pesticide applied over a water of the State will fall into the water of the State.

A portion of every application of a pesticide into a water of the State will leave a residue in the water of the State thereby requiring coverage under an NPDES permit. Any person who wishes to dispute this determination must submit scientific data to prove that no quantity of the pesticide will remain as a residue in a water of the State. This information should include data to show what level of the pesticide can be detected in water, and at what level in

water the pesticide provides a pesticidal benefit. Such data should address the properties of the chemical pesticide under different water conditions (e.g., different pH, organic content, temperature, depth, etc.) that might affect the pesticide's properties. A permit may not be necessary if IEPA receives scientific information that convinces the Agency that a chemical pesticide applied into a water of the State will not remain as a residue in the water of the State.

1.1.2 Limitations on Coverage

1.1.2.1 Discharges to Water Quality Impaired Waters

Operators are not eligible for coverage under this permit for any discharges from a pesticide application to waters of the State if the water is identified as impaired by a substance which either is an active ingredient in that pesticide or is a degradate of such an active ingredient. For purposes of this permit, impaired waters are those that have been identified by the State pursuant to Section 303(d) of the Clean Water Act (CWA) as not meeting applicable State water quality standards or not meeting the intended use of the water body. Impaired waters for the purposes of this permit may include both waters with USEPA-approved or USEPA-established Total Maximum Daily Loads (TMDLs) and waters for which USEPA has not yet approved or established a TMDL. A list of the 303(d) waters is available on the Internet at www.epa.illinois.gov/topics/forms/water-permits/pesticide/303d-list/index. If a discharge from a pesticide application would not be eligible under this permit because the water is listed as impaired for that specific pesticide, but there is evidence that shows the water is no longer impaired, operators may submit this information to IEPA and request that coverage be allowed under this permit.

1.1.2.2 Discharges to Waters Designated as Outstanding Resource Waters for Antidegradation Purposes

Operators are not eligible for coverage under this permit for discharges from a pesticide application to waters designated by the State as Outstanding Resource Waters for anti-degradation purposes under 35 Ill. Adm. Code 302.105(b).

1.1.2.3 Discharges Currently or Previously Covered by another Permit

Pesticide discharges are not eligible for coverage under this permit if any of the following circumstances apply:

a. The discharge is covered by another NPDES permit, or

b. The discharge was included in a permit that in the past 5 years has been or is in the process of being denied, terminated, or revoked by IEPA (this does not apply to the routine reissuance of permits every 5 years).

1.2 Authorization to Discharge under This Permit

1.2.1 How to Obtain Authorization

To obtain authorization under this permit, an operator must:

a. Meet the eligibility requirements identified in Part 1.1, and

b. Submit a complete and accurate Notice of Intent (NOI) consistent with the requirements of Parts 1.2.2 and 1.2.3.

1.2.2 Operators Required to Submit a Notice of Intent

The following operators are required to submit a Notice of Intent to obtain coverage under this general permit for discharges to waters of the State resulting from the application of pesticides:

a. Person(s), group, or entity with control over the hiring of a contract applicator, or making the decision to perform pesticide application, that will result in a discharge to waters of the State; or

b. Person(s), group, or entity performing the application of pesticides, that will result in a discharge to waters of the State.

Operators must submit an NOI to IEPA electronically. Operators should refer to www.epa.illinois.gov/topics/forms/water-permits/pesticide/index for instruction on submitting the NOI. IEPA will post on the Internet, at www.epa.illinois.gov/topics/forms/water-permits/pesticide/notices/index, all NOIs received. Late NOIs will be accepted, but authorization to discharge will not be retroactive. NOI submissions must be in accordance with the deadlines in Part 1.2.3.

Coverage will be available for the duration of the permit for operators who file an NOI, including the operator's employees, contractors, subcontractors, and other agents, for all activities identified on the NOI unless coverage is terminated pursuant to Parts 1.2.5 or 1.3. If a submitted NOI is not timely, accurate, or complete, then any employee, contractor, subcontractor or other entity that discharges without the required NOI is not covered by this permit.

The NOI form is available on the Internet at www.epa.illinois.gov/Assets/iepa/forms/water-quality/wastewater/pesticide/noi.pdf.

1.2.3 Discharge Authorization Date

Unless modified, exempted, or stayed by legislative action or court order, discharges to waters of the State as a result of pesticide applications must be authorized under an NPDES permit. Operators that are eligible for coverage under Part 1.1 are authorized to discharge under this permit consistent with the NOI submission and the Table 1 below.

Table 1. Original NOI Submittal Deadlines and Discharge Authorization Date

Category	NOI Submittal Deadline	Discharge Authorization Date
Operators are required to submit an NOI prior to commencement of discharge.	At least 14 days prior to commencement of discharge.	No earlier than 14 days after IEPA posts on the Internet the receipt of the complete and accurate NOI.
Operators commencing discharge in response to a declared pest emergency situation as defined in Appendix A.	No later than 30 days after commencement of discharge.[1]	Immediately, for activities conducted in response to declared pest emergency situation.

To remain authorized, all operators must submit NOI changes, as necessary, consistent with Table 2 below.

Table 2. NOI Change of Information Submittal Deadlines and Discharge Authorization Date

Category	NOI Submittal Deadline	Discharge Authorization Date
Operators requiring permit coverage for a new use pattern or for a treatment area not within the pest management area, previously identified on a NOI submitted to IEPA.	At least 14 days prior to commencement of discharge in that newly identified treatment area.	No earlier than 14 days after IEPA posts on the Internet the receipt of the complete and accurate NOI.
Operators requiring permit coverage for a new use pattern or for a treatment area in response to a declared pest emergency situation not within the pest management area, previously identified on a NOI submitted to IEPA.	No later than 30 days after commencement of discharge.[1]	Immediately, for activities conducted in response to declared pest emergency situation.

[1] In the event that a discharge occurs prior to submitting an NOI, the operator must comply with all other requirements of this permit immediately.

Based on a review of the NOI or other information, IEPA may determine that additional technology-based and/or water quality-based effluent limitations are necessary, or deny coverage under this permit and require submission of an application for an individual NPDES permit, as detailed in Part 1.3.

Unless notified by the Agency to submit additional information, operators who submit an NOI in accordance with the requirements of this permit are authorized to discharge under the terms and conditions of this permit 30 days after the date the NOI is received by the Agency.

1.2.4 Continuation of this Permit

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 CFR 122.6 and 35 Ill. Adm. Code, Subtitle C, Chapter I and remain in force and effect. If a permittee was authorized to discharge under this permit prior to the expiration date, any discharges authorized under this permit will automatically remain covered by this permit until the earliest of the following:

a. A permittee is authorized for coverage under a reissued permit or a replacement of this permit, following the timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and in compliance with the requirements of the NOI;

b. The permittee submits a Notice of Termination (NOT) and that notice is processed consistent with Part 1.2.5.1;

c. An individual NPDES permit for a discharge resulting from application of a pesticide that would otherwise be covered under this permit is issued or denied;

d. IEPA issues a formal permit decision not to reissue this general permit, at which time IEPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or

e. IEPA has informed the permittee that the discharge is no longer covered under this permit.

1.2.5 Terminating Coverage

1.2.5.1 Submitting a Notice of Termination

To terminate permit coverage, a permittee must submit a complete and accurate Notice of Termination. Permittees must submit the Notice of Termination electronically. The authorization to discharge under this permit is terminated the day that a complete Notice of Termination is processed. If a permittee submits a Notice of Termination without meeting one or more of the conditions identified in Part 1.2.5.2, the Notice of Termination is not valid. Permittees are responsible for complying with the terms of this permit until authorization is terminated. If required to submit annual reports pursuant to Part 7, the permittee must file an annual report for the portion of the year up through the date of termination. The annual report shall be submitted with the completed Notice of Termination.

Permittees may not terminate coverage under this permit and reapply in order to remain below the annual treatment area thresholds.

The NOT form is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms/not.pdf.

1.2.5.2 When to Submit a Notice of Termination

A permittee must submit a Notice of Termination within 30 days after one or more of the following conditions have been met:

a. The permittee has ceased all discharges from the application of pesticides for which permit coverage was obtained and the permittee does not expect to discharge during the remainder of the permit term for any of the use patterns as identified in Part 1.1.1; or

b. The permittee has obtained coverage under an individual NPDES permit or an alternative NPDES general permit for all discharges required to be covered by an NPDES permit, unless the permittee obtained coverage consistent with Part 1.3, in which case coverage under this permit will terminate automatically.

1.2.6 Transfer of Permit Coverage

If a new operator takes over responsibility of pest control activities covered under an existing NOI, the new operator must submit the following:

a. A new NOI for the new operator; and

b. A letter from the existing permittee referencing the existing NPDES permit number, date of coverage, and requesting transfer of the permit.

1.3 Alternative Permits

1.3.1 Requiring Coverage under an Alternative Permit

In accordance with 40 CFR 122.64, 40 CFR 124.5, and 35 Ill. Adm. Code, Subtitle C, Chapter I, IEPA may require operators to apply for and/or obtain authorization to discharge under either an individual NPDES permit or an alternative NPDES general permit.

If IEPA requires an operator to apply for an individual NPDES permit, IEPA will notify the operator in writing that a permit application is required. This notification will include a brief statement of the reasons for the decision and will provide application information. In addition, for permittees whose discharges are authorized under this permit, any notice will set a deadline to file the permit application and will include a statement that on the effective date of the individual NPDES permit, coverage under this general permit will terminate. IEPA may grant additional time to submit the application if the operator submits a request setting forth reasonable grounds for additional time. If covered under this permit and the permittee fails to submit an individual NPDES permit application as required by IEPA, the applicability of this permit to such permittee is terminated at the end of the day specified by IEPA as the deadline for application submittal. IEPA may take enforcement action for any unpermitted discharge or violation of any permit requirement.

1.3.2 Operator Requesting Coverage under an Alternative Permit

If an operator does not want to be covered by this general permit, but needs permit coverage, the operator can apply for an individual NPDES permit. In such a case, the operator must submit an individual permit application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to IEPA. The request may be granted by issuance of an individual NPDES permit or authorization of coverage under an alternative NPDES general permit.

When an individual NPDES permit is issued, or the operator is authorized under an alternative NPDES general permit to discharge a pollutant to waters of the State as a result of a pesticide application, authorization to discharge under this permit is terminated on the effective date of the individual NPDES permit or the date of authorization of coverage under the alternative NPDES general permit.

1.4 Severability

Invalidation of a portion of this permit does not render the whole permit invalid. IEPA's intent is that the permit will remain in effect to the extent possible; if any part of this permit is invalidated, the remaining parts of the permit will remain in effect unless IEPA issues a written statement stating otherwise.

1.5 Other Federal and State Laws

Permittees must comply with all other applicable federal and state laws and regulations that pertain to application of pesticides. For example, this permit does not relieve the permittee of the responsibility of complying with the requirements or provisions of the Federal Insecticide, Fungicide, and Rodenticide Act and its implementing regulations to use registered pesticides consistent with the product's labeling. In fact, applications in violation of certain FIFRA requirements could also be a violation of this permit and therefore a violation of the CWA (e.g. exceeding label application rates). Additionally, other laws and regulations might apply to certain activities that are also covered under this permit (e.g., United States Coast Guard regulations).

1.6 Endangered Species Compliance

The location of the treatment areas must be submitted to the Illinois Department of Natural Resources (IDNR) EcoCAT website to determine if protected natural resources are in the vicinity, www.dnr.illinois.gov/ecopublic/. Consultation with the Department is required under the Illinois Endangered Species Protection Act, 520 ILCS

10/11(b) and the Illinois Natural Areas Preservation Act, 525 ILCS 30/17, for all permittees covered by this permit unless exempted below.

The following applications are exempt from consultation unless there will be an adverse impact to a listed species or its essential habitat or to a Natural Area:

1. Per consultation regulations (17 Ill. Adm. Code, Part 1075) – annual, routine cultivation of existing agricultural lands; and maintenance of existing lawns, yards and ornamental plantings.

2. Per a Memorandum of Understanding between IEPA and IDNR – microbial larvicide applied to catch basins and storm sewers.

1.7 Reopener Clause

If there is evidence indicating potential or realized adverse impacts on water quality due to any pesticide discharge covered by this permit, the permittee may be required to obtain an individual permit or an alternative general permit in accordance with Section 1.3.1 of this permit or the permit may be modified to include different limitations and/or requirements.

Permit modification or revocation will be conducted according to provisions of 35 Ill. Adm. Code, Subtitle C, Chapter I and the provisions of 40 CFR 122.62, 122.63, 122.64, and 124.5 and any other applicable public participations procedures.

The Agency will reopen and modify this permit under the following circumstances:

a. The USEPA amends its regulations concerning public participation;

b. A court of competent jurisdiction binding in the State of Illinois or the 7th Circuit issues an order necessitating a modification of public participation for general permits; or

c. To incorporate federally required modifications to the substantive requirements of this permit.

2.0 Technology-Based Effluent Limitations

This part includes technology-based effluent limitations applicable to all permittees for any discharge authorized under this permit, with compliance required upon beginning such discharge. If the permittee is not the applicator, the technology-based effluent limitations are also applicable to the contract applicator.

If a permittee's discharge of pollutants results from the application of pesticides that is being used solely for the purpose of "pesticide research and development," as defined in Appendix A, the permittee must use such pesticide consistent with any applicable research plan and experimental use permit.

As stated in Part 1.5, this permit required all permittees to comply with other applicable federal or state laws and regulations that pertain to application of pesticides by the permittee.

2.1 Level 1: Technology- Based Effluent Limitations

All permittees must meet Level 1 of the technology-based effluent limitations in Part 2.1 to minimize the discharge of pesticides to waters of the State from the application of pesticides, through the use of Pest Management Measures, as defined in Appendix A. If the permittee is not the applicator, the Level 1 technology-based effluent limitations are also applicable to the contract applicator.

2.1.1 Use only the amount of pesticide and frequency of pesticide application necessary to control the target pest, using equipment and application procedures appropriate for this task.

2.1.2 Maintain pesticide application equipment in proper operating condition, including the requirement to calibrate, clean, and repair such equipment and prevent leaks, spills, or other unintended discharges.

2.1.3 Assess weather conditions (e.g. temperature, precipitation and wind speed) in the treatment area to ensure application is consistent with all applicable federal and state requirements.

2.2 Level 2: Technology-Based Effluent Limitations

Level 2 of the technology-based effluent limitations applies to permittees which exceed one or more of the annual (i.e. calendar year) treatment area threshold(s) listed in Table 3 below, as defined in Appendix A. If the permittee is not the applicator, the Level 2 technology-based effluent limitations are also applicable to the contract applicator.

Table 3. Annual Treatment Area Threshold

Section	Pesticide Use	Annual Threshold
2.2.1	Mosquito and Other Insect Pest Control	
	- Adult Mosquitoes and Other Insect Pests	6,400 acres of treatment area
	- Mosquito and Other Insect Aquatic Larviciding	80 acres of treatment area (i.e. surface area)
2.2.2	Weed and Algae Pest Control	
	- In Water	80 acres of treatment area (i.e. surface area)
	- At Water's Edge	20 linear miles of treatment area
2.2.3	Animal Pest Control	
	- In Water	80 acres of treatment area (i.e. surface area)
	- At Water's Edge	20 linear miles of treatment area
2.2.4	Forested Areas Pest Control	6,400 acres of treatment area
2.2.5	Other Pest Control Activities	
	- Ground or Aerial	6,400 acres of treatment area
	- In Water	80 acres of treatment area (i.e. surface area)
	- At Water's Edge	20 linear miles of treatment area

For calculating the annual treatment area, count each treatment area only once, regardless of the number of pesticide application activities when applying with the same pesticide product. For example, applying pesticides 3 times a year to the same 3,000 acre site using the same pesticide product, the annual treatment area should be counted as 3,000 acres. If a different pesticide product is applied to the same treatment area, these activities would be counted as separate treatment areas for each different pesticide product. For example, applying pesticides 3 times a year to the same 3,000 acre site using a different pesticide product each time the annual treatment area should be counted as 9,000 acres.

For linear features (e.g., a canal or ditch) use the length of the linear feature whether treating in or adjacent to the feature. For example, when treating the bank on one side of a 10 mile long ditch, banks on both sides of the ditch, and/or water in the ditch, the total treatment area is 10 miles.

2.2.1 Mosquito and Other Insect Pest Control

This part applies to discharges from the application of pesticides for mosquito and other insect pest control as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Establish densities for larval and adult mosquitoes or other insect pest populations or identify environmental condition(s), either current or based on historical data, to serve as action threshold(s) for implementing Pest Management Measures;

2. Identify target pest(s) to develop Pest Management Measures based on developmental and behavioral considerations for each pest;

3. Identify known breeding sites for source reduction, larval control program, and habitat management;

4. Analyze existing surveillance data to identify new or unidentified sources of mosquito or other insect pest problems as well as sites that have recurring pest problems; and

5. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.1.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control mosquitoes or other insect pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical or physical methods
4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage mosquitoes or other insect pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct larval and/or adult surveillance in an area that is representative of the pest problem or evaluate existing larval surveillance data, environmental conditions, or data from adjacent areas prior to each pesticide application to assess the pest management area and to determine when action threshold(s) is met;

2. Reduce the impact on the environment and on non-target organisms by applying the pesticide only when the action threshold(s) has been met;

3. In situations or locations where practicable and feasible for effective control, use larvicides as a preferred pesticide for mosquito or other insect pest control when the larval action threshold(s) has been met; and

4. In situations or locations where larvicide use is not practicable or feasible for efficacious control, use adulticides for mosquito or other insect pest control when the adult action threshold(s) has been met.

2.2.2 Weed and Algae Pest Control

This part applies to discharges from the application of pesticides for weed, algae, and pathogens as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Identify areas with pest problems and characterize the extent of the problems, including, for example, water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation);

2. Identify target pest(s);

3. Identify possible factors causing or contributing to pest problem (e.g., nutrients, invasive species, etc);

4. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A , for implementing Part 2.2.2.b; and

5. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.2.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical or physical methods
4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each pesticide application to assess the pest management area and to determine when the action threshold(s) is met; and

2. Reduce the impact on the environment and non-target organisms by applying the pesticide only when the action threshold(s) has been met.

2.2.3 Animal Pest Control

This part applies to discharges from the application of pesticides for control of animal pests as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Identify areas with pest problems and characterize the extent of the problems, including, for example, water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation);

2. Identify target pest(s);

3. Identify possible factors causing or contributing to the problem (e.g., nutrients, invasive species);

4. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A, for implementing Part 2.2.3.b; and

5. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.3.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each year thereafter prior to the first pesticide application during that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical or physical methods
4. Biological control agents
5. Pesticides

c. Pesticide Use

If a pesticide is selected to manage pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of pest problem prior to each application to assess the pest management area and to determine when the action threshold(s) is met:; and

2. Reduce the impact on the environment and non-target organisms by evaluating site restrictions, application timing, and application method in addition to applying the pesticide only when the action threshold(s) has been met.

2.2.4 Forested Area Pest Control

This part applies to discharges from the application of pesticides for forested area pest control as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application in that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A, for implementing Part 2.2.4.b;

2. Identify target pest(s) to develop a Pest Management Measures based on developmental and behavioral considerations for each pest;

3. Identify current distribution of the target pest and assess potential distribution in the absence of Pest Management Measures; and

4. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.4.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a

combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical/physical methods
4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage forestry pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each application to assess the pest management area and to determine when the pest action threshold(s) is met;

2. Reduce the impact on the environment and non-target organisms by evaluating the restrictions, application timing, and application methods in addition to applying the pesticide only when the action threshold(s) have been met; and

3. Evaluate using pesticides against the most susceptible developmental stage.

2.2.5 Other Pest Control Activities

This part applies to discharges from the application of pesticides not identified in Parts 2.2.1, 2.2.2, 2.2.3, or 2.2.4.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application in that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A, for implementing Part 2.2.5.b;

2. Identify target pest(s) to develop Pest Management Measures based on developmental and behavioral considerations for each pest;

3. Identify current distribution of the target pest and assess potential distribution in the absence of Pest Management Measures; and

4. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.5.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical/physical methods

4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage other activities not covered under the other four use patterns and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each application to assess the pest management area and to determine when the pest action threshold(s) is met;

2. Reduce the impact on the environment and non-target organisms by evaluating the restrictions, application timing, and application methods in addition to applying the pesticide only when the action threshold(s) have been met; and

3. Evaluate using pesticides against the most susceptible developmental stage.

3.0 Water Quality-Based Effluent Limitations

All permittees must control discharges as necessary to meet applicable numeric and narrative State water quality standards, for any discharge authorized under this permit, with compliance required upon the beginning of such discharge. Discharges covered by this permit, alone or in combination with other sources, shall not cause a violation of any applicable water quality standards outlined in 35 Ill. Adm. Code 302, in light of the provisions of 35 Ill. Adm. Code 302.210(g).

If at any time a permittee becomes aware (e.g., through self-monitoring or by notification from the State), or IEPA determines, that the discharge causes or contributes to an excursion of applicable water quality standards, the permittee must take corrective action as required in Part 6, up to and including the ceasing of the discharge, if necessary.

4.0 Monitoring

4.1 Visual Monitoring Requirements

During any pesticide application or post-application surveillance of any pesticide application with discharges authorized under this permit, all permittees must, when considerations for safety and feasibility allow and while observing reentry periods for pesticides application, visually assess the area to and around where pesticides are applied for possible and observable adverse incidents, as defined in Appendix A, caused by application of pesticides, including the unanticipated death or distress of non-target organisms and disruption of wildlife habitat, recreational or municipal water use.

If the permittee is not the applicator, this section is also applicable to the contract applicator.

5.0 Pesticide Discharge Management Plan

Permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 must prepare and submit a Pesticide Discharge Management Plan (PDMP). This section does not apply to the following:

1. Any application made in response to a declared pest emergency situation, as defined in Appendix A.

2. Permittees who meet the definition of a small entity, as defined in Appendix A.

3. Permittees conducting pesticide application activities pursuant to the Vector Control Act (410 ILCS 95) which are funded by, conducted in accordance with, or under the supervision of the Illinois Department of Public Health or an associated municipal, county or regional department of public health or public health district.

The PDMP and all supporting documents must be submitted with the NOI. The PDMP must be submitted electronically in Adobe Acrobat format to epa.ILG87pestPDMP@illinois.gov.

The plan must be kept up-to-date thereafter for the duration of coverage under this general permit, even if the discharges subsequently fall below the applicable treatment area thresholds listed in Table 3.

The PDMP does not contain effluent limitations as the effluent limitations are specified in Parts 2 and 3 of the permit. The PDMP documents how the permittee will implement the effluent limitations in Parts 2 and 3 of the permit, including the evaluation and selection of Pest Management Measures to meet those effluent limitations in order to minimize discharges. In the PDMP, the permittee may incorporate by reference any procedures or plans in other documents that meet the requirements of this permit. If the permittee relies upon other documents to comply with the effluent limitations in this permit, such as a pre-existing pest management plan, the permittee must attach to the PDMP a copy of any portions of any documents that are used to document the implementation of the effluent limitations.

5.1 Contents of the Pesticide Discharge Management Plan

The PDMP must include the following elements:

a. Pesticide Discharge Management Plan Team
b. Problem Identification
c. Pest Management Options Evaluation
d. Response Procedures
    1. Spill Response Procedures
    2. Adverse Incident Response Procedures
e. Signature Requirements

5.1.1 PDMP Team

Permittees must identify all persons (by name and contact information) that compose the team as well as each person's individual responsibilities, including:

a. Person(s) responsible for managing pests in relation to the pest management area;

b. Person(s) responsible for developing and revising the PDMP; and

c. Person(s) responsible for developing, revising, and implementing corrective actions and other effluent limitation requirements.

5.1.2 Problem Identification

Permittees must document the following:

a. Pest problem description. Document a description of the pest problem at the pest management area, including identification of the target pest(s), source(s) of the pest problem, and source of data used to identify the problem in Parts 2.2.1, 2.2.2, 2.2.3, 2.2.4, and 2.2.5.

b. Action Threshold(s). Describe the action threshold(s) for the pest management area, including the data used in developing the action threshold(s) and method(s) to determine when the action threshold(s) has been met.

c. General location map. In the plan, include a general location map (e.g., USGS quadrangle map, a portion of a city or county map, or other map) that identifies the geographic boundaries of the area to which the plan applies and location of the waters of the State.

d. Water quality standards. Document any water(s) identified as impaired by a substance which either is an active ingredient or a degradate of such an active ingredient.

5.1.3 Pest Management Options Evaluation

Permittees must document the evaluation of the pest management options, including combination of the pest management options, to control the target pest(s). Pest management options include the following: No action, prevention, mechanical/physical methods, cultural methods, biological control agent, and pesticides. In the

evaluation, permittees must consider the impact to water quality, impact to non-target organisms, feasibility, cost effectiveness, and any relevant previous Pest Management Measures.

5.1.4 Response Procedures

Permittees must document the following procedures in the PDMP:

a. Spill Response Procedures – At a minimum, the permittees must have:

1. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases to waters of the State. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the PDMP team.

2. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

b. Adverse Incident Response Procedures – At a minimum, the permittees must have:

1. Procedures for responding to any adverse incident resulting from pesticide applications.

2. Procedures for notification of the adverse incident, both internal to the permittee agency/organization and external. Contact information for State permitting agency, nearest emergency medical facility, and nearest hazardous chemical responder must be in locations that are readily accessible and available.

5.1.5 Signature Requirements

Permittees must sign, date and certify the PDMP in accordance with Appendix B.

5.2 Pesticide Discharge Management Plan Modifications

Permittees must modify the PDMP whenever necessary to address any of the conditions for corrective action in Part 6.1 or when a change in pest control activities significantly changes the type or quantity of pollutants discharged. Changes to the PDMP must be made before the next pesticide application that results in a discharge, if practicable, or if not, no later than 90 days after any change in pesticide application activities. The revised PDMP must be signed and dated in accordance with Appendix B. Permittees must submit the modified PDMP electronically to epa.ILG87pestPDMP@illinois.gov.

5.3 Pesticide Discharge Management Plan Availability

Permittees must retain a copy of the current PDMP, along with all supporting maps and documents, at the address provided on the NOI. The PDMP and all supporting documents must be readily available and copies of any of these documents provided, upon request, to IEPA or to any local agency governing discharges or pesticide applications within their respective jurisdictions; and to representatives of any federal or state agencies. IEPA may provide copies of the PDMP or other information related to this permit that is in its possession to members of the public. Any Confidential Business Information (CBI), as defined in 40 CFR Part 2, may be withheld from the public provided that a claim of confidentiality is properly asserted and documented in accordance with 40 CFR Part 2; however, CBI must be submitted to IEPA, if requested, and may not be withheld from those staff within IEPA, or any other state or federal agency cleared for CBI review.

6.0 Corrective Action

All permittees must comply with the provisions of Part 6 for any discharges authorized under this permit, with compliance required upon the beginning of such discharge. If the permittee is not the applicator, this section is also applicable to the contract applicator.

6.1 Situations Requiring Revision of Pest Management Measures

Permittees must review and, as necessary, revise the evaluation and selection of Pest Management Measures consistent with Parts 2.1 and 2.2 for the following situations:

a. An unauthorized release or discharge associated with the application of pesticides (e.g., spill, leak, or discharge not authorized by this or another NPDES permit) occurs.

b. Permittee becomes aware, or IEPA concludes, that Pest Management Measures are not adequate/sufficient for the discharge to meet applicable State water quality standards;

c. Any monitoring activities indicate failure to meet applicable technology-based effluent limitations in Part 2.

d. An inspection or evaluation of activities by IEPA reveals that modifications to the Pest Management Measures are necessary to meet the effluent limitations in this permit.

e. Any permittee observes or is otherwise made aware of an adverse incident, as defined in Appendix A.

6.2 Corrective Action Deadlines

If a permittee determines that changes to the Pest Management Measures are necessary to eliminate any situation identified in Part 6.1, such changes must be made before or, if not practicable, as soon as possible after the next pesticide application that results in a discharge.

6.3 Effect of Corrective Action

The occurrence of a situation identified in Part 6.1 may constitute a violation of the permit. Correcting any situation identified in Part 6.1 does not absolve permittees of liability for any original violation. However, failure to comply with Part 6.2 constitutes an additional permit violation. IEPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

IEPA may impose additional requirements and schedules of compliance, including requirements to submit additional information concerning the condition(s) requiring corrective action or schedules and requirements more stringent than specified in this permit. Those requirements and schedules will supersede those of Parts 6.1 and 6.2 if such requirements conflict.

6.4 Adverse Incident Documentation and Reporting

6.4.1 Twenty-Four Hour Adverse Incident Notification

6.4.1.1 Adverse Incident Notification Required

If a permittee observes or is otherwise made aware of an adverse incident, as defined in Appendix A, which may have resulted from a discharge from a pesticide application, made by the permittee or a contract applicator, the permittee must immediately notify the Illinois Emergency Management Agency (IEMA) and USEPA, Region 5, Pesticide Program. This notification must be made by telephone within 24 hours of the permittee becoming aware of the adverse incident and must include at least the following information:

a. The caller's name and telephone number;

b. Permittees name and mailing address;

c. NPDES permit number;

d. The name and telephone number of a contact person, if different than the person providing the 24-hour notice;

e. How and when the permittee became aware of the adverse incident;

f. Description of the location of the adverse incident;

g. Description of the adverse incident identified and the pesticide product, including USEPA pesticide registration number, for each product applied in the area of the adverse incident; and

h. Description of any steps the permittee has taken or will take to correct, repair, remedy, clean-up, or otherwise address any adverse effects.

If a permittee is unable to notify IEMA within 24 hours, the permittee must do so as soon as possible and also provide an appropriate rationale why the permittee was unable to provide such notification within 24 hours.

The adverse incident notification and reporting requirements are in addition to what the registrant is required to submit under FIFRA section 6(a)(2) and its implementing regulations at 40 CFR Part 159.

6.4.1.2 Adverse Incident Notification Not Required

Reporting of adverse incidents is not required under this permit in the following situations:

a. A permittee is aware of facts that indicate that the adverse incident was not related to toxic effects or exposure from the pesticide application;

b. A permittee has been notified by IEMA and retains such notification, that the reporting requirement has been waived for this incident or category of incidents;

c. A permittee receives information of an adverse incident, but that information is clearly erroneous; or

d. An adverse incident occurs to pests that are similar in kind to potential target pests identified on the FIFRA label.

6.4.2 Fifteen Day Adverse Incident Written Report

Within fifteen (15) business days of a reportable adverse incident pursuant to Part 6.4.1, permittees must provide a written report of the adverse incident to the IEPA Compliance Assurance Section. Permittees must submit the 15-day adverse incident report electronically to epa.ILG87pest5day@illinois.gov. The adverse incident report must include at least the following information:

a. Information required to be provided in Part 6.4.1;

b. Date and time the permittee contacted IEMA notifying the Agency of the adverse incident, who the permittee spoke with at IEMA, and any instructions received from IEMA;

c. Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc);

d. A description of the circumstances of the adverse incident including species affected, estimated number of individual and approximate size of dead or distressed organisms;

e. Magnitude and scope of the affected area (e.g. estimate aquatic surface area or total stream distance affected);

f. Pesticide application rate; intended use site (e.g., on the bank, above waters, or directly to water), method of application; and name of pesticide product and USEPA pesticide registration number;

g. Description of the habitat and the circumstances under which the adverse incident occurred (including any available ambient water data for pesticides applied);

h. If laboratory tests were performed, an indication of what test(s) were performed, and when; additionally, a summary of the test results within 5 days after they become available if not available at the time of submission of the 15-day adverse incident report;

i. Description of actions to be taken to prevent recurrence of adverse incidents; and

j. Signature, date, and certification in accordance with Appendix B.

The Adverse Incident Report form is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms/adverse-incident.pdf.

6.4.3 Adverse Incident to Federally Threatened or Endangered Species or Critical Habitat

Notwithstanding any of the other adverse incident notification requirements of this section, if a permittee or contract applicator becomes aware of an adverse incident affecting a federally listed threatened or endangered species or its federally designated critical habitat which may have resulted from a discharge from the permittee's pesticide application, the permittee must immediately notify the United States Fish and Wildlife Service (FWS). This information must be made by telephone, to the contacts listed on USFWS's website at www.fws.gov/offices, immediately upon the permittee becoming aware of the adverse incident, and must include at least the following information:

a. The caller's name and telephone number;

b. Permittee name and mailing address;

c. The name of the affected species;

d. How and when the permittee became aware of the adverse incident;

e. Description of the location of the adverse incident;

f. Description of the adverse incident and the pesticide product, including the USEPA pesticide registration number, for each product applied in the area of the adverse incident, and;

g. Description of any steps the permittee has taken or will take to alleviate the adverse impact to the species.

Additional information on federally listed threatened or endangered species and federally designated critical habitat is available from FWS (www.fws.gov) for terrestrial or freshwater species.

6.5 Reportable Spills and Leaks

6.5.1 Spill, Leak, or Other Unpermitted Discharge Notification

Where a leak, spill, or other release into waters of the State containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs in any 24-hour period, the permittee or contract applicator must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302. The permittee must also notify IEMA at (800) 782-7860. Both of these Agencies shall be notified immediately and as soon as the permittee has knowledge of the release. Contact information must be in locations that are readily accessible and available in the area where the spill, leak, or other unpermitted discharge may occur.

Local requirements may necessitate also reporting spills or leaks to local emergency response, public health, or drinking water supply agencies.

6.5.2 Fifteen-Day Spill, Leak, or Other Unpermitted Discharge Documentation

If a permittee becomes aware of a spill, leak, or other unpermitted discharge which initiates the notification requirements in Part 6.5.1 and results in an adverse incident, then the permittee must report the incident per the requirements in Parts 6.4.1 and 6.4.2. If the spill, leak, or other unpermitted discharges initiates the notification requirements in Part 6.5.1, but does not result in an adverse incident, then permittee must document and retain the following information within 15 business days of becoming aware of the situation:

a. Information required to be provided in Part 6.5.1

b. Summary of corrective action taken or to be taken including date initiated and date completed or expected to be completed; and

c. Any measures to prevent recurrence of such a spill or leak or other discharge, including notice of whether PDMP modifications are required as a result of the spill or leak.

6.6 Other Corrective Action Documentation

For situations identified in Part 6.1, other than for adverse incidents (addressed in Part 6.4), or reportable spills or leaks (addressed in Part 6.5), permittees must document the situation requiring corrective action and the planned corrective action within fifteen (15) business days of becoming aware of that situation and retain a copy of this documentation. This documentation must include the following information:

a. Identification of the condition requiring the need for corrective action review, including any ambient water quality monitoring that assisted in determining that discharges did not meet water quality standards;

b. Brief description of the situation;

c. Date the problem was identified.

d. Brief description of how the problem was identified, how the permittee learned of the situation, and date the permittee learned of the situation;

e. Summary of corrective action taken or to be taken, including date initiated and date completed or expected to be completed; and

f. Any measures to prevent reoccurrence of such an incident, including notice of whether PDMP modifications are required as a result of the incident.

7.0 Recordkeeping and Annual Reporting

The recordkeeping and annual reporting requirements vary depending on whether a permittee meets the definition of a small entity, as defined in Appendix A, and/or exceeds one or more of the annual treatment area thresholds listed in Table 3.

Permittees must keep written records as required in this permit for all discharges covered under this permit. These records must be accurate and complete to demonstrate the permittees compliance with the conditions of this permit. Permittees may rely on records and documents developed for other obligations, such as requirements under FIFRA, and state or local pesticide programs, provided all requirements of this permit are satisfied.

IEPA recommends that all permittees covered under this permit keep records of acres or linear miles treated for all applicable use patterns covered under this general permit. The records shall be kept up-to-date to help the permittee determine if the annual treatment area thresholds, as identified in Part 2.2, are met during any calendar year.

7.1 Level 1: Recordkeeping

Level 1 recordkeeping applied to all permittees which must keep the following records:

a. A copy of the NOI submitted to IEPA, any correspondence exchanged between the permittee and IEPA specific to coverage under this permit, and a copy of the IEPA acknowledgment letter assigning the permit number;

b. A copy of this permit;

c. A copy of any Adverse Incident Reports (Part 6.4.2);

d. Rationale for any determination that reporting of an identified adverse incident is not required consistent with allowances identified in Part 6.4.1.2;

e. A copy of any corrective action documentation (Part 6.6);

f. A copy of any spill, leak, or other unpermitted discharge documentation (Part 6.5.2); and

g. Endangered Species Compliance Documentation

Permittees conducting pesticide application activities pursuant to the Vector Control Act (410 ILCS 95) which are funded by, conducted in accordance with, or under the supervision of the Illinois Department of Public Health or an associated municipal, county or regional department of public health or public health district are only required to perform Level 1 recordkeeping.

7.2 Level 2: Recordkeeping

Level 2 recordkeeping applies to permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 and meet the definition of a small entity, as defined in Appendix A, must retain the following records at the address provided on the NOI. If the permittee is not the applicator, some of the records listed below shall be kept by the contract applicator.

a. Documentation of equipment calibration; and

b. Information on each treatment area to which pesticides are discharged, including:

1. Description of treatment area, by name and/or location including the size (acres or linear feet) of treatment area, as well as the closest named waters of the State to which pesticide(s) discharged are tributary;

2. Pesticide use pattern(s) (i.e., mosquito or other insect pest control, etc.)

3. Target pest(s) and explanation of need for pest control;

4. Description of pest management measures(s) implemented prior to the first pesticide application;

5. If different from the permittee, company name and contact information for contract applicator;

6. Name of each pesticide product used including the USEPA pesticide registration number;

7. Quantity of each pesticide product applied to each treatment area;

8. Pesticide application start and end date(s);

9. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not; why not and whether monitoring identified any possible or observable adverse incidents caused by application of pesticides; and

10. Name of any waters of the State in the treatment area currently listed as impaired for pesticides on the 303(d) list. This should include the name of the pesticide for which it is impaired.

An evaluation worksheet for documenting this information for each treatment area is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms/discharge-evaluation.pdf.

7.3. Level 3: Recordkeeping

Level 3 recordkeeping applies to permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 and do not meet the definition of a small entity, as defined in Appendix A, must retain the following records at the address provided on the NOI. If the permittee is not the applicator, some of the records listed below shall be kept by the contract applicator.

a. A copy of the PDMP, including any modifications made to the PDMP during the term of this permit;

b. A copy of the annual reports submitted to IEPA;

c. Documentation of equipment calibration; and

d. Information on each treatment area to which pesticides are discharged, including:

1. Description of treatment area, by name and/or location including the size (acres or linear feet) of treatment area, as well as the closest named waters of the State to which pesticide(s) discharged are tributary;

2. Pesticide use pattern(s) (i.e., mosquito or other insect pest control, etc.)

3. Target pest(s) and explanation of need for pest control;

4. Action threshold(s);

5. Method and/or data used to determine that action threshold(s) has been met;

6. Description of pest management measures(s) implemented prior to the first pesticide application;

7. If different from the permittee, company name and contact information for contract applicator;

8. Name of each pesticide product used including the USEPA pesticide registration number;

9. Quantity of each pesticide product applied to each treatment area;

10. Pesticide application start and end date(s);

11. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not; why not and whether monitoring identified any possible or observable adverse incidents caused by application of pesticides; and

12. Name of any waters of the State in the treatment area currently listed as impaired for pesticides on the 303(d) list. This should include the name of the pesticide for which it is impaired.

7.4 Additional Recordkeeping Requirements for All Permittees

All required records must be documented as soon as possible but no later than 15 business days following completion each pesticide application. Permittees must retain any records required under this permit for at least 3 years from the date that coverage under this permit expires or is terminated. Permittees must make available to IEPA, including an authorized representative of IEPA, all records kept under this permit upon request and provide copies of such records, upon request.

7.5 Annual Reporting

Permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 and do not meet the definition of a small entity, as defined in Appendix A, must submit an annual report to IEPA. Once the permittee meets the obligation to submit an annual report, the permittee must submit an annual report each calendar year thereafter for the duration of coverage under this general permit, whether or not the permittee has discharges from the application of pesticides in any subsequent calendar year. Permittees must submit the annual report electronically to epa.ILG87pestAnnRep@illinois.gov. The annual report must be submitted to IEPA no later than February 15th of the following year for all pesticide activities covered under this permit occurring during the previous calendar year.

Permittees conducting pesticide application activities pursuant to the Vector Control Act (410 ILCS 95) which are funded by, conducted in accordance with, or under the supervision of the Illinois Department of Public Health or an associated municipal, county or regional department of public health or public health district are not required to submit an annual report.

The annual report must include information for the calendar year, with the first annual report required to include activities for the portion of the calendar year after the effective date of the NOI. If the effective date is after December 1, the permittee is not required to submit an annual report for that first partial year but must submit annual reports thereafter, with the first annual report submitted also including information from the first partial year.

When permittees terminate permit coverage, as specified in Part 1.2.5, an annual report must be submitted for the portion of the year up through the date of termination. The annual report is due no later than 45-days after the termination date, or February 15th of the following year, whichever is earlier.

The annual report must contain the following information:

a. Permittee's name and contact information;

b. NPDES permit number;

c. Contact person name, title, e-mail address (if any), and phone number; and

d. For each treatment area, report the following information:

   1. Description of treatment area, by name and/or location including the size (acres or linear feet) of treatment area, as well as the closest named waters of the State to which pesticide(s) discharge are tributary;

   2. Pesticide use pattern(s) (i.e., mosquito and other insects, etc.) and target pest(s);

   3. Company name(s) and contact information for the pesticide applicator(s), if different from the permittee;

   4. Total amount of each pesticide product applied for the reporting year by the USEPA pesticide registration number(s) and by application method (e.g., aerially by fixed-wing or rotary aircraft, broadcast spray, etc.);

   5. Whether this pest control activity was addressed in the PDMP prior to pesticide application;

   6. If applicable, an annual report of any adverse incidents as a result of these treatment(s), for incidents, as described in Part 6.4.1; and

   7. If applicable, description of any corrective action(s), including spill responses, resulting from pesticide application activities and the rationale for such action(s).

The Annual Report form is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms/annual-report.pdf.

8.0 Contact Information and Mailing Addresses

Permittees must submit the following documents to the email addresses listed below.

a. PDMP to epa.ILG87pestPDMP@illinois.gov

b. Annual Reports to epa.ILG87pestAnnRep@illinois.gov

c. Within 15 business days of becoming aware of an adverse incident, permittees must send all incident reports under Part 6.4 to epa.ILG87pest5day@illinois.gov

All other written correspondence concerning discharges covered under this permit and directed to the IEPA, including individual NPDES permit applications, must be sent to the IEPA Headquarters address listed below.

Note: If IEPA notifies dischargers (either directly, by public notice, or by making information available on the Internet) of other reporting options that become available at a later date (e.g., electronic submission), permittees may take advantage of those options, in accordance with the instructions provided by IEPA, to satisfy the reporting requirements of this permit.

8.1 IEPA Headquarters Address

Illinois Environmental Protection Agency
Division of Water Pollution Control, Mail Code #15
Attention: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
www.epa.illinois.gov/topics/forms/water-permits/pesticide/index

8.2 USEPA, Region 5 Address

United States Environmental Protection Agency
Region 5
Attention: Pesticide Program
77 W. Jackson Blvd.
Chicago, IL 60604

Appendix A
Definitions, Abbreviations, and Acronyms

A.1. DEFINITIONS

Action Threshold – the point at which pest populations or environmental conditions cannot be tolerated necessitating that pest control action be taken based on economic, human health, aesthetic, or other effects. An action threshold may be based on current and/or past environmental factors that are or have been demonstrated to be conducive to pest emergence and/or growth, as well as past and/or current pest presence. Action thresholds are those conditions that indicate both the need for control actions and the proper timing of such actions.

Active Ingredient – any substance (or group of structurally similar substances if specified by the Agency) that will prevent, destroy, repel or mitigate any pest, or that functions as a plant regulator, desiccant, or defoliant within the meaning of FIFRA sec. 2(a). [40 CFR 152.3] Active ingredient also means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for the production of such a pesticidal substance. [40 CFR 174.3]

Adverse Incident – means an unusual or unexpected incident that a permittee or contract applicator has observed upon inspection or of which the permittee otherwise become aware, in which:

1. There is evidence that a person or non-target organism has likely been exposed to a pesticide residue, and
2. The person or non-target organism suffered a toxic or adverse effect.

The phrase toxic or adverse effects includes effects that occur within waters of the State on non-target plants, fish or wildlife that are unusual or unexpected (e.g., effects are to organisms not otherwise described on the pesticide product label or otherwise not expected to be present) as a result of exposure to a pesticide residue, and may include:

- Distressed or dead juvenile and small fishes
- Washed up or floating fish
- Fish swimming abnormally or erratically
- Fish lying lethargically at water surface or in shallow water
- Fish that are listless or nonresponsive to disturbance
- Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants
- Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.)

The phrase, toxic or adverse effects, also includes any adverse effects to humans (e.g., skin rashes) or domesticated animals that occur either from direct contact with or as a secondary effect from a discharge (e.g., sickness from consumption of plants or animals containing pesticides) to waters of the State that are temporally and spatially related to exposure to a pesticide residue (e.g., vomiting, lethargy).

Annual Treatment Area Threshold – an area (in acres) or in linear distance (in miles) in a calendar year to which a permittee is authorizing and/or performing pesticide applications in that area for activities covered under this permit.

Applicator – any person(s) who performs the application of a pesticide or who has day-to-day control of the application (i.e., they are authorized to direct workers to carry out those activities) that results in a discharge to waters of the State.

Biological Control Agents – these agents are organisms that can be introduced to operator sites, such as herbivores, predators, parasites, and hyperparasites. [Source: USFWS IPM Guidance, 2004]

Biological Pesticides (also called biopesticides) – include microbial pesticides, biochemical pesticides and plant-incorporated protectants (PIP). Microbial pesticide means a microbial agent intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or dessicant, that (1) is a eucaryotic microorganism including, but not limited to, protozoa, algae, and fungi; (2) is a procaryotic microorganism, including, but not limited to, Eubacteria and Archaebacteria; or (3) is a parasitically replicating microscopic element, including but not limited to, viruses. [40 CFR 158.2100(b)] Biochemical pesticide mean a pesticide that (1) is a naturally-occurring substance or structurally-similar and functionally identical to a naturally-occurring substance; (2) has a history of exposure to humans and the environment demonstrating minimal toxicity, or in the case of a synthetically-derived biochemical pesticides, is equivalent to a naturally-occurring substance that has such a history; and (3) has a non-toxic mode of action to the target

pest(s). [40 CFR 158.2000(a)(1)] Plant-incorporated protectant means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for production of such a pesticidal substance. It also includes any inert ingredient contained in the plant, or produce thereof. [40 CFR 174.3]

Chemical Pesticides – all pesticides not otherwise classified as biological pesticides.

Contract Applicator – any person(s) who make contractual pesticide applications for which they or their employer receives compensation (e.g., pest control companies).

Cultural Methods – manipulation of the habitat to increase pest mortality by making the habitat less suitable to the pest.

Declared Pest Emergency Situation – an event defined by a public declaration by a federal, state, or local governmental body or agency of a pest problem determined to require control through application of a pesticide beginning less than ten days after identification of the need for pest control. This public declaration may be based on:

1. Significant risk to human health;
2. Significant economic loss; or
3. Significant risk to:
   i. Endangered species,
   ii. Threatened species,
   iii. Beneficial organisms, or
   iv. The environment.

Director – means the Director of the Illinois Environmental Protection Agency or an authorized representative.

Discharge – when used without qualification, means the "discharge of a pollutant." [40 CFR 122.2]

Discharge of a pollutant – any addition of any "pollutant" or combination of pollutants to "waters of the State" from any "point source," or any addition of any pollutant or combination of pollutants to the water of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. This includes additions of pollutants into waters of the State from: surface runoff that is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. [Excerpted from 40 CFR 122.2]

USEPA Approved or Established Total Maximum Daily Loads (TMDLs) – "USEPA Approved TMDLs" are those that are developed by the State and approved by USEPA. "USEPA Established TMDLs" are those that are issued by USEPA.

Facility or Activity – any NPDES "point source" (including land or appurtenances thereto) that is subject to regulation under the NPDES program. [40 CFR 122.2]

Impaired Water (or "Water Quality Impaired Water" or "Water Quality Limited Segment") – a water is impaired for purposes of this permit if it has been identified by the State pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called "water quality limited segments" under 40 CFR 130.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

Inert Ingredient – any substance (or group of structurally similar substances if designated by the Agency), other than an active ingredient, that is intentionally included in a pesticide product. [40 CFR 152.3] Inert ingredient also means any substance, such as a selectable marker, other than the active ingredient, where the substance is used to confirm or ensure the presence of the active ingredient, and includes the genetic material necessary for the production of the substance, provided that genetic material is intentionally introduced into a living plant in addition to the active ingredient. [40 CFR 174.3]

Mechanical/Physical Methods – mechanical tools or physical alterations of the environment, for pest prevention or removal.

Minimize – to reduce and/or eliminate pesticide discharges to waters of the State through the use of Pest Management Measures to the extent technologically available and economically practicable and achievable.

Non-target Organisms – includes the plant and animal hosts of the target species, the natural enemies of the target species living in the community, and other plants and animals, including vertebrates, living in or near the community that are not the target of the pesticide.

Operator – for the purpose of this permit, means any person(s) associated with the application of a pesticide that results in a discharge to waters of the State that meets either or both of the following two criteria:

a. The person(s) with control over the hiring of a contract applicator, or making the decision to perform pesticide applications, including the ability to modify those decisions, that results in a discharge to waters of the State, or

b. The person(s) who performs the application of pesticides or who has day-to-day control of the pesticide application, that results in a discharge to waters of the State.

Outstanding Resource Water – is a surface water body or water body segment that is of exceptional ecological or recreational significance and must be designated by the Illinois Pollution Control Board pursuant to 35 Ill. Adm. Code 102.Subpart H.

Permittee – an operator that has obtained coverage under this general permit.

Person – any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity, or their legal representative, agent or assigns.

Pest – consistent with 40 CFR 152.5, any organism under circumstances that make it deleterious to man or the environment, if it is:

a. Any vertebrate animal other than man;

b. Any invertebrate animal, including but not limited to, any insect, other arthropod, nematode, or mollusk such as a slug and snail, but excluding any internal parasite of living man or other living animals;

c. Any plant growing where not wanted, including any moss, alga, liverwort, or other plant of any higher order, and any plant part such as a root; or

d. Any fungus, bacterium, virus, or other microorganism, except for those on or in living man or other living animals and those on or in processed food or processed animal feed, beverages, drugs (as defined in FFDCA sec. 201(g)(1)) and cosmetics (as defined in FFDCA sec. 201(i)).

Pest Management Area – the area of land, including any water, for which the permittee has responsibility for and is authorized to conduct pest management activities as covered by this permit (e.g., for a permittee who is a mosquito control district, the pest management area is the total area of the district).

Pest Management Measure – any practice used to meet the effluent limitations that comply with manufacturer specifications, industry standards and recommended industry practices related to the application of pesticides, relevant legal requirements and other provisions that a prudent permittee would implement to reduce and/or eliminate pesticide discharges to waters of the State.

Pesticide – means (1) any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, (2) any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant, and (3) any nitrogen stabilizer, except that the term "pesticide" shall not include any article that is a "new animal drug" within the meaning of section 201(w) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321(w)), that has been determined by the Secretary of Health and Human Services not to be a new animal drug by a regulation establishing conditions of use for the article, or that is an animal feed within the meaning of section 201(x) of such Act (21 U.S.C. 321(x)) bearing or containing a new animal drug. The term "pesticide" does not include liquid chemical sterilant products (including any sterilant or subordinate disinfectant claims on such products) for use on a critical or semi-critical device, as defined in section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321). For purposes of the preceding sentence, the term "critical device" includes any device that introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body and the term "semi-critical device" includes any device that contacts intact mucous membranes but

which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. [FIFRA Section 2(u)]

The term "pesticide" applies to insecticides, herbicides, fungicides, rodenticides, and various other substances used to control pests. The definition encompasses all uses of pesticides authorized under FIFRA including uses authorized under sections 3 (registration), 5 (experimental use permits), 18 (emergency exemptions), 24(c) (special local needs registrations), and 25(b) (exemptions from FIFRA).

Note: Drugs used to control diseases of humans or animals (such as livestock and pets) are not considered pesticides; such drugs are regulated by the Food and Drug Administration. Fertilizers, nutrients, and other substances used to promote plant survival and health are not considered plant growth regulators and thus are not pesticides. Biological control agents, except for certain microorganisms, are exempted from regulation under FIFRA. (Biological control agents include beneficial predators such as birds or ladybugs that eat insect pests, parasitic wasps, fish, etc).

This permit uses the term "pesticide" when referring to the "pesticide, as applied." When referring to the chemical in the pesticide product with pesticidal qualities, the permit uses the term "active ingredient."

Pesticide Product – a pesticide in the particular form (including composition, packaging, and labeling) in which the pesticide is, or is intended to be, distributed or sold. The term includes any physical apparatus used to deliver or apply the pesticide if distributed or sold with the pesticide.

Pesticide Research and Development – activities undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development).

Pesticide Residue – includes that portion of a pesticide application that is discharged from a point source to waters of the State and no longer provides pesticidal benefits. It also includes any degradates of the pesticide.

Point Source – any discernible, 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 stormwater runoff. [40 CFR 122.2]

Pollutant – dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. [Excerpted from 35 Ill. Adm. Code 301.340] For purposes of this definition, a "biological pesticide" is considered a "biological material," and any "pesticide residue" resulting from use of a "chemical pesticide" is considered a "chemical waste." [Excerpted from 40 CFR 122.2]

Small Entity – any (1) public entity that serves a population of 10,000 or less, (2) a person(s) applying pesticides on private property where they or any member of their immediate family reside or property that they own or lease, or (3) a private enterprise that does not exceed the Small Business Administration size standard as identified at 13 CFR 121.201.

Target Pest – the organism(s) toward which pest management measures are being directed.

Total Maximum Daily Loads (TMDLs) – a TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount of the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. [See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7]

Treatment Area – the entire area, whether over land or water, where a pesticide application is intended to provide pesticidal benefits within the pest management area. In some instances, the treatment area will be larger than the area where pesticides are actually applied. For example, the treatment area for a stationary drip treatment into a canal includes the entire width and length of the canal over which the pesticide is intended to control weeds. Similarly, the treatment area for a lake or marine area is the water surface area where the application is intended to provide pesticidal benefits.

Waters – 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 this state.

Water Quality Impaired – see 'Impaired Water'.

Water Quality Standards – a water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. Water quality standards also include an antidegradation policy and implementation procedures. See 35 Ill. Adm. Code 302.

Wetlands - means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. [40 CFR 122.2]

A.2. ABBREVIATIONS AND ACRONYMS

CFR	Code of Federal Regulations
CWA	Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)
FFDCA	Federal Food, Drug, and Cosmetic Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §136 *et seq*
FWS	United States Fish and Wildlife Service
IDNR	Illinois Department of Natural Resources
IEPA	Illinois Environmental Protection Agency
IEMA	Illinois Emergency Management Agency
IPM	Integrated Pest Management
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
ORW	Outstanding Resource Water
PDMP	Pesticide Discharge Management Plan
TMDL	Total Maximum Daily Load
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
WQS	Water Quality Standard

Appendix B
Standard Permit Conditions – Attachment H

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-hou period.

8-Hour Composite Sample means a combination of at least : sample aliquots of at least 100 milliliters, collected at periodi intervals during the operating hours of a facility over an 8-hou period.

Flow Proportional Composite Sample means a combination o sample aliquots of at least 100 milliliters collected at periodi intervals such that either the time interval between each aliquot o the volume of each aliquot is proportional to either the stream flow a the time of sampling or the total stream flow since the collection o the previous aliquot.

(1) **Duty to comply.** The permittee must comply with al conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcemen 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 fo toxic pollutants within the time provided in the regulations tha 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 a 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.

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

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 physica damage to property, damage to the treatment facilitie which causes them to become inoperable, o substantial and permanent loss of natural resource which can reasonably be expected to occur in the absence of a bypass. Severe property damage doe not mean economic loss caused by delays i production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluen limitations to be exceeded, but only if it also is for essentia maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraph (13)(c) and (13)(d).

(c) Notice.
(1) Anticipated bypass. If the permittee knows i advance of the need for a bypass, it shall submit prio notice, if possible at least ten days before the date o the bypass.
(2) Unanticipated bypass. The permittee shall submi notice of an unanticipated bypass as required i 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 treatmen facilities, retention of untreated wastes, o maintenance during normal periods of equipmen downtime. This condition is not satisfied i adequate back-up equipment should have bee installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipmen downtime or preventive maintenance; and
(iii) The permittee submitted notices as required under paragraph (13)(c).
(2) The Agency may approve an anticipated bypass, afte 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
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 B
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.

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5.15 MCDOT Snow and Ice Policies and Procedures Manual

The MCDOT Snow and Ice Policies and Procedures Manual can be obtained from the MCDOT Maintenance Department.

The Division of Water Resources also maintains a website (www.mchenryh2o.com) with general handbooks and a model policy for both public and private entities. Annually, the Division of Water Resources and MCDOT partner to provide training to snow control entities.

5.16 BMPs Implemented within MS4 Jurisdiction and Estimated Effectiveness

Best management practices (BMPs) are utilized to capture and remove contaminants and sediment from stormwater runoff both during and post-construction. BMPs can range from those practices constructed in the field to pre-purchased devices. Each BMP is site-specific and is designed to treat and/or retain stormwater based on the specific development, existing and proposed site parameters, and potential contaminants that may enter the BMP.

The USEPA's "Stormwater Best Management Practice Design Guide: Volume 1 General Considerations" contains guidance on the appropriateness and effectiveness of different types of BMPs in varying applications. Appendix D of the document provides a table of pollutant yields based on land use categories. In Appendix E of the document, pollutant removal information is provided as compiled by the Center for Watershed Protection. The data shows median pollutant removal efficiency as a percentage.

Table D-1 Typical Urban Areas and Pollutant Yields (Burton & Pitt, 2002)

POLLUTANT	LAND USE (lb/acre/yr)[a]								
	Com-mercial	Parking Lot	Residential - Density			High-ways	Ind-ustry	Parks	Shop-ping Center
			High	Medim	Low[b]				
Total Solids	2100	1300	670	450	65	1700	670	NA[c]	720
SS	1000	400	420	250	10	880	500	3	440
Cl	420	300	54	30	9	470	25	NA	36
TP	1.5	0.7	1	0.3	0	0.9	1.3	0.03	0.5
TKN	6.7	5.1	4.2	2.5	0.3	7.9	3.4	NA	3.1
NH_3	1.9	2	0.8	0.5	0	1.5	0.2	NA	0.5
$NO_3 + NO_2$	3.1	2.9	2	1.4	0.1	4.2	1.3	NA	0.5
BOD_5	62	47	27	13	1	NA	NA	NA	NA
COD	420	270	170	50	7	NA	200	NA	NA
Pb	2.7	0.8	0.8	0.1	0	4.5	0.2	0	1.1
Zn	2.1	0.8	0.7	0.1	0	2.1	0.4	NA	0.6
Cr	0.15	NA	NA	0	0	0.09	0.6	NA	0.04
Cd	0.03	0.01	0	0	0	0.02	0	NA	0.01
As	0.02	NA	NA	0	0	0.02	0	NA	0.02

[a] The difference between lb/acre/yr and kg/ha/yr is less than 15%, and the accuracy of the values shown in this table cannot differentiate between such close values
[b] The monitored low-density residential areas were drained by grass swales
[c] NA = Not available

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5.16 BMPs Implemented within MS4 Jurisdiction and Estimated Effectiveness (cont.)

Table E-1 Median Pollutant Removal of Stormwater Treatment Practices (CWP 2000)

	Median Pollutant Removal Efficiency (%)						
Treatment BMP	**TSS**	**TP**	**Sol P**	**TN**	**NOx**	**Cu**	**Zn**
Stormwater Detention Ponds	47	19	–6.0	25	4	26[1]	26
Stormwater Retention Ponds	80 (67)	51(48)	66 (52)	33 (31)	43 (24)	57 (57)	66 (51)
Stormwater Wetlands	76 (78)	49 (51)	35 (39)	30 (21)	67 (67)	40 (39)	44 (54)
Filtering Practices[2]	86 (87)	59 (51)	3 (-31)	38 (44)	-14 (-13)	49 (39)	88 (80)
Infiltration Practices	95 [1]	70	85 [1]	51	82 [1]	N/A	99 [1]
Water Quality Swales[3]	81 (81)	34 (29)	38 (34)	8 [41]	31	51 (51)	71 (71)

1. Data based on fewer than five data points
2. Excludes vertical sand filters and filter strips
3. Refers to open channel practices designed for water quality

Notes: Data in parentheses represent values from the First Edition; N/A = data are not available, TSS = Total Suspended Solids; TP = Total Phosphorus; Sol P = Soluble Phosphorus; TN = Total Nitrogen; NOx = Nitrate and Nitrite Nitrogen; Cu = Copper; Zn = Zinc.

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The County has installed and maintains numerous BMPs throughout the MS4's jurisdiction. A list and location of each of the BMPs can be found below. Both appendices from the above-referenced report were used to calculate an estimate of both the pollutant load to the BMP and the median pollutant reduction for each BMP. Totals are shown at the bottom of the table. Overall, the BMPs throughout the MS4's jurisdiction remove a total of 149,000 lb/yr of total suspended solids (TSS), 45.6 lb/yr of total Phosphorus (TP), and 194.7 lb/yr of total Nitrogen (TN) that would otherwise reach our waterways and continue to impact the water quality.

Watershed	Location	Type	Dimensions	Drainage Area to BMP (ac)	Land Use Draining to BMP	BMP Effectiveness (lb/yr) based on drainage area and land use to BMP		
						TSS	TP	TN
Kishwaukee R	Algonquin Road - SEC at Church St	Dry detention basin (3)	250' long x 40' wide	3.6731	Highway	2,934.80	0.63	7.25
Kishwaukee R	Algonquin Road - SWC at Church St	Dry detention basin	60' long x 50' wide	0.9183	Highway	733.70	0.16	1.81
Kishwaukee R	Franklinville Road over Franklinville Cr - SEC at creek	Bioswale	200' long x 4' wide	0.7805	Highway	1,074.79	0.24	0.49
Kishwaukee R	Franklinville Road over Franklinville Cr - SWC at creek	Bioswale	80' long x 4' wide	0.3214	Highway	442.56	0.10	0.20
Kishwaukee R	Franklinville Road over Kishwaukee R - NEC at river	Bioswale	110' long x 4' wide	0.8035	Highway	1,106.40	0.25	0.51
Kishwaukee R	Franklinville Road over Kishwaukee R - NWC at river	Bioswale	100' long x 4' wide	0.2755	Highway	379.34	0.08	0.17
Kishwaukee R	Kishwaukee Valley Road over N Br Kishwaukee R - NWC at river	Bioswale	140' long x 4' wide	1.0331	Highway	1,422.52	0.32	0.65
Kishwaukee R	Kishwaukee Valley Road over N Br Kishwaukee R - SWC at river	Bioswale	180' long x 4' wide	3.6731	Highway	5,057.85	1.12	2.32
Piscasaw Cr	Lawrence Road over Piscasaw Cr - NWC at creek	Wetland basin	145' long x 85' wide	1.1478	Highway	1,561.07	0.53	2.99
Lower Fox R	Algonquin Road - SEC at Hanson Rd	Dry detention basin	90' long x 90' wide (triangle)	0.2296	Highway	183.43	0.04	0.45
Lower Fox R	IL Route 31 - SWC at Virginia Rd	Bio-surface	210' x 60' wide	1.2626	Parking Lot	1,329.55	0.30	0.52
Lower Fox R	IL Route 31 - SWC at Virginia Rd	Dry detention basin	180' long x 130' wide (triangle)	2.2957	Parking Lot	1,402.66	0.31	2.93
Lower Fox R	IL Route 31 - SWC at Virginia Rd	Dry detention basin	70' diameter	2.5253	Parking Lot	1,542.93	0.34	3.22
Lower Fox R	IL Route 31 - SWC at Virginia Rd	Dry detention basin	60' long x 25' wide	0.5510	Parking Lot	336.64	0.07	0.70
Lower Fox R	McHenry Co Animal Control Facility - 100 N. Virginia St, Crystal Lake	Wetland basin	325' long x 200' wide	10.6749	Commercial	17,933.88	8.17	23.60
Lower Fox R	Rakow Road - NEC at Pyott Rd	Dry detention basin	600' long x 180' wide (triangle)	6.6575	Highway	5,319.33	1.14	13.15
Lower Fox R	Rakow Road - NWC at McHenry Ave	Wetland basin	330' long x 150' wide	6.8871	Highway	9,366.39	3.16	17.95
Lower Fox R	Rakow Road - SEC at Virginia Rd	Stormceptor	N/A	12.3967	Highway	10,537.19	-	-
Lower Fox R	Randall Road - SWC at Ackman Rd	Stormceptor	N/A	1.6070	Highway	1,365.93	-	-
Nippersink Cr	Alden Road over Nippersink Cr - NEC at creek	Stormceptor	N/A	0.1263	Highway	107.32	-	-
Nippersink Cr	Alden Road over Nippersink Cr - SWC at creek	Stormceptor	N/A	1.3774	Highway	1,170.80	-	-
Nippersink Cr	County Records Storage Facility - 15611 Nelson Rd, Woodstock	Biofilter - grass swale	1000' long x 5' wide	8.4940	Commercial	14,448.35	4.33	4.55
Nippersink Cr	McHenry Co Administration Building - 667 Ware Rd, Woodstock	Biofilter - grass swale	220' long x 14' wide	1.3085	Parking Lot	1,377.89	0.31	0.53
Nippersink Cr	McHenry Co Administration Building - 667 Ware Rd, Woodstock	Dry detention basin	140' long x 75' wide	1.1019	Commercial	1,087.60	0.31	1.85
Nippersink Cr	McHenry Co Administration Building - 667 Ware Rd, Woodstock	Dry detention basin	280' long x 70' wide	6.6575	Commercial	6,570.94	1.90	11.15
Nippersink Cr	McHenry Co Administration Building - 667 Ware Rd, Woodstock	Rain garden	44' long x 14' wide	0.0141	Commercial	25.54	0.01	0.04
Nippersink Cr	McHenry Co Administration Building - 667 Ware Rd, Woodstock	Xeriscape	100' long x 20' wide	0.0459	Commercial	82.92	0.04	0.12
Nippersink Cr	McHenry Co Court Facility - 2200 N. Seminary Ave, Woodstock	Dry detention basin	500' long x 40' wide	5.5096	Parking Lot	3,366.39	0.73	7.02
Nippersink Cr	McHenry Co Division of Transportation - 16111 Nelson Rd, Woodstock	Wet detention basin	170' long x 65' wide	8.2645	Commercial	13,884.30	6.32	18.27
Nippersink Cr	McHenry Co Division of Transportation - 16111 Nelson Rd, Woodstock	Wetland basin	260' long x 100' wide	5.3949	Commercial	9,063.36	4.13	11.93
Nippersink Cr	McHenry Co Health Department - 2200 N. Seminary Ave, Woodstock	Dry detention basin	470' long x 20' wide	4.1322	Parking Lot	2,524.79	0.55	5.27
Nippersink Cr	McHenry Co Health Department - 2200 N. Seminary Ave, Woodstock	Dry detention basin	200' long x 60' wide	1.6070	Commercial	1,586.09	0.46	2.69
Nippersink Cr	Valley Hi Nursing Home - 2402 Hartland Rd, Woodstock	Bioswale	300' long x 25' wide	1.0331	Commercial	1,757.23	0.53	0.55
Nippersink Cr	Valley Hi Nursing Home - 2402 Hartland Rd, Woodstock	Wet detention basin	450' long x 90' wide	5.7392	Commercial	9,641.87	4.39	12.69
Upper Fox R	Charles J. Miller Road - SEC at Green St	Dry detention basin	400' long x 130' wide (triangle)	1.7218	Highway	1,375.69	0.29	3.40
Upper Fox R	Charles J. Miller Road - SWC at Green St	Dry detention basin	640' long x 50' wide	4.0174	Highway	3,209.94	0.69	7.93
Upper Fox R	Charles J. Miller Road over Fox R - NEC at river	Wetland basin	200' long x 40' wide	1.5381	Highway	2,091.83	0.71	4.01
Upper Fox R	Charles J. Miller Road over Fox R - SWC at River Rd	Dry detention basin	285' long x 130' wide	1.7218	Highway	1,375.69	0.29	3.40
Upper Fox R	Johnsburg Road - SWC at Spring Grove Rd	Bioswale	185' long x 20' wide	1.0331	Highway	1,422.52	0.32	0.65
Upper Fox R	S. Crystal Lake Road - NEC at Mason Hill Rd	Dry detention basin	1400' long x 25' wide	2.0661	Highway	1,650.83	0.35	4.08
Upper Fox R	S. Crystal Lake Road - SEC at Cunat Dr	Dry detention basin	750' long x 20' wide	1.7218	Highway	1,375.69	0.29	3.40
Upper Fox R	S. Crystal Lake Road - SEC at Raintree Dr	Dry detention basin	100' long x 100' wide	2.4105	Highway	1,925.96	0.41	4.76
Upper Fox R	Walkup Road - SEC at Anvil Dr	Wetland basin	280' long x 90' wide (triangle)	2.8696	Highway	3,902.66	1.32	7.48

	TSS	TP	TN
TOTALS =	149,057.17	45.63	194.72