

Stormwater Management Program Plan



Seavey Ditch, Vernon Hills, IL

VILLAGE OF VERNON HILLS

LAKE COUNTY, ILLINOIS

APRIL 4, 2016

SMPP

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1 Overview of the Stormwater Management Program Plan



Des Plaines River – Lake County, IL Photo by Dave Piasecki

Introduction

This Stormwater Management Program Plan (SMPP) was developed by Village of Vernon Hills based off a SMPP template provided by the Lake County Stormwater Management Commission. The purpose of the SMPP is 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 (LCDOT and IDOT).

The SMPP describes the procedures and practices that can be implemented by Village of Vernon Hills 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:

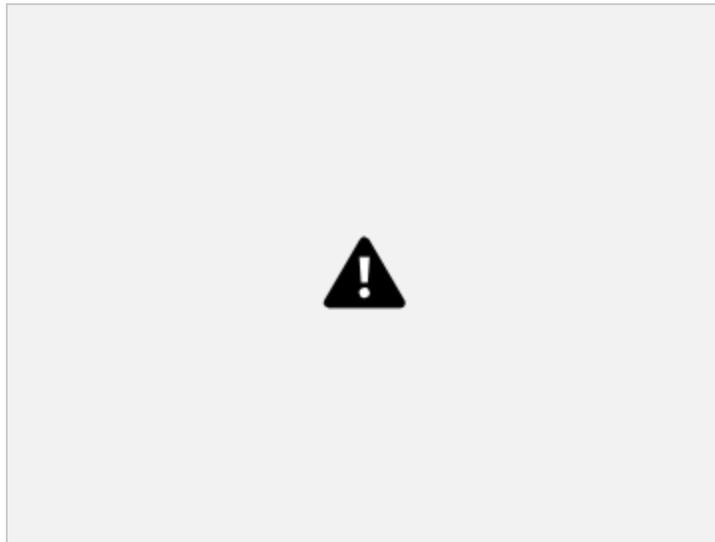
- cleaner lakes and streams,
- improved recreational opportunities and tourism,
- flood damage reduction,
- better aesthetics and wildlife habitat, and

- a safer and healthier environment for the citizens.

The SMPP addresses the primary program elements for all Village of Vernon Hills activities, including the manner in which Village of Vernon Hills:

- reviews, permits and inspects construction activity within its limits;
- manages the planning, design and construction of projects performed within its limits;
- maintains its facilities and performs its 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.

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 U.S. Environmental Protection Agency (USEPA). In Illinois, the USEPA has delegated administration of the Federal NPDES 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 General Permit is included in **Appendix 5.16**. Municipalities covered by the General ILR40 permit, are automatically covered under ILR10 30 days after the IEPA receives the NOI from the municipality.

Countywide Approach to NPDES Compliance

The Lake County Stormwater Management Commission (SMC) is a countywide governmental agency created by county ordinance under the authority of Illinois Revised Statute 55/5-1062. SMC's goals include the reduction of flood damage and water quality degradation. Another purpose of SMC 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 SMC works cooperatively with individuals, groups, and units of government as well as serving as the corporate enforcement authority for the Lake County Watershed Development Ordinance. SMC enforces the WDO in non-certified communities on behalf of the municipality. The municipality is responsible for enforcing the WDO in Certified Communities. A municipality is considered a Certified Community after its petition is approved by SMC. SMC 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, SMC provides solutions to problems related to stormwater and identifies effective ways of managing natural resources.

In 2002, SMC formed an Ad Hoc Municipal Advisory Committee (MAC) specifically to advise MS4s on the NPDES Phase II Permit program. Municipalities, townships, drainage districts, consultants and county representatives comprise the MAC. SMC advised and assisted the MS4s in preparing their NOIs, but is not a permittee as it does not own or operate any sewer systems.

The General Permit allows for MS4s to take credit for activities being performed by a Qualifying Local Program (QLP) toward meeting its permit requirements. The Lake County Stormwater Management Commission (SMC) is a Qualifying Local Program for MS4s in Lake County. As part of their ongoing services, SMC performs some functions related to each of the six minimum control measures. SMC has been providing services under four of the six minimum control categories since it began implementing a comprehensive, countywide stormwater program in 1991. 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.

SMC sponsors informative workshops and roundtable discussions. It formed the Municipal Advisory Committee (MAC) to receive input on how SMC can best assist local governments during the permit application process and implementation period. Through these discussions, it was decided that each municipality (or MS4) submit its own "Notice of Intent" (NOI) to be covered under IEPA's statewide general permit. However, using the countywide approach, municipalities may take credit for the programs and ordinances developed by SMC as well as tailor specific local BMP programs for compliance with the Phase II rules.

As part of the countywide approach to comply with the NPDES Phase II program, SMC 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 IEPA and USEPA,
- Supports an on-going Municipal Advisory Committee (MAC),
- Drafts a model of the Annual Performance Report and specific BMP Measurable Goals for the subsequent years, and
- Provides model Illicit Discharge Ordinance language.
- Provides SMPP Template.

SMC countywide services qualify for credit under four of the six Minimum Control Measures. Additionally, SMC 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 SMC services under the 6 minimum control categories:

1. **Public Education and Outreach:** SMC provides, through its Public Information Coordinator, various training workshops, homeowners workshops, brochures, training manuals, teacher/student education, videos, etc.,
2. **Public Participation and Involvement:** SMC coordinates and participates in public meetings and committees, including the Municipal Advisory Committee (MAC), SMC Board of Commissioners, Technical Advisory Committee (TAC), citizen watershed planning committees, Watershed Management Board (WMB), and volunteer support.
3. **Construction Site Runoff Control:** SMC adopted the countywide Watershed Development Ordinance in 1992, which establishes the minimum stormwater management requirements for development in Lake County. The WDO, which is enforced by SMC as well as by certified communities in the county, establishes standards for construction site runoff control.
4. **Post-Construction Runoff Control:** The Watershed Development Ordinance also establishes standards for post-construction runoff control.

Organization of SMPP

The SMPP identifies best management practices to be implemented in six different categories. These categories are:

- Public Education and Outreach,
- Public Participation/Involvement,

- Construction Site Runoff Control,
- Post-Construction Runoff Control,
- Illicit Discharge Detection and Elimination, and
- Pollution Prevention/Good Housekeeping.

Chapter 1: Overview of the Stormwater Management Program Plan - Discusses the format of the SMPP document and the regulations associated with NPDES II through county, state and federal agencies.

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

Chapter 3: The Program - Addresses stormwater pollutant control measures implemented by Village of Vernon Hills per the six minimum control categories established by the USEPA:

- Public Education and Outreach,
- Public Participation/Involvement,
- Construction Site Runoff Control,
- Post-Construction Runoff Control,
- Illicit Discharge Detection and Elimination, and
- Pollution Prevention/Good Housekeeping.

Chapter 4: Monitoring, Program Evaluation and Reporting - Describes the monitoring, evaluation and reporting procedures associated with the program. The SMPP is a guide created to protect the 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.

Watersheds, Sub-Watersheds and Receiving Waters



Des Plaines River

The Village of Vernon Hills is primarily located within the Des Plaines River Watershed. There are several receiving waters, tributary to the Des Plaines River, which are located within the Village. These streams include the Seavey Ditch and Indian 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 four major Rivers in Lake 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 four major rivers in Lake County, their tributary stream systems and other Waters of the U.S.

The major Watersheds and receiving waters are presented on **Figure 1 Map of Major Sub-watershed and Receiving Waters**.

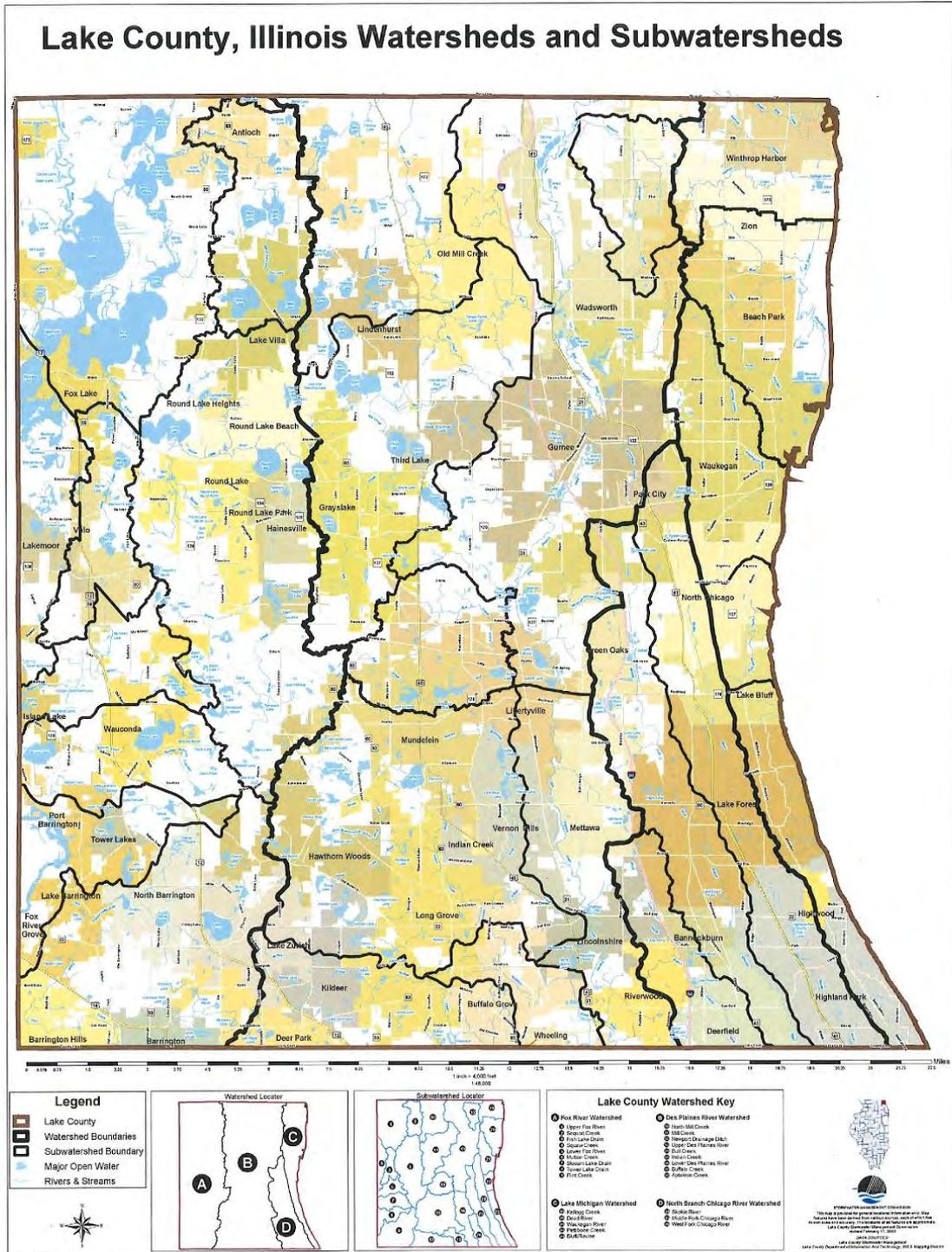
Des Plaines River Watershed

The Des Plaines River watershed originates in Racine and Kenosha Counties in Wisconsin flowing south into Illinois. The Des Plaines watershed in Lake County drains an area of approximately 202 square miles or 129,577 acres. It is the largest of the county's four major watersheds. The topography of the watershed is dominated by a gently rolling landscape with numerous wet marshy areas. The Lake County portion of the watershed is divided into nine sub-watersheds.

The Des Plaines River watershed wholly or predominantly includes the communities of Arlington Heights, Buffalo Grove, Deer Park, Grayslake, Gurnee, Hawthorn Woods, Indian Creek, Kildeer, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Mettawa, Mundelein, Old Mill Creek, Riverwoods, Third Lake, Vernon Hills, Wadsworth and Wheeling. New development has centered on the many lakes in the watershed. Open space areas are concentrated along the Des Plaines River, where the Lake County Forest Preserve District has substantial

holdings, which stretch uninterrupted from the Wisconsin-Illinois border into Cook County. Watershed planning activities continue for the entire Des Plaines River watershed and planning sponsors include the Illinois Department of Natural Resources, U.S. Army Corps of Engineers, Lake, Cook and DuPage Counties. The Lake County Stormwater Management Commission has completed watershed management plans for the Bull Creek/Bull's Brook, Fish Lake Drain, Indian Creek, Mill Creek, North Branch of the Chicago River, Sequoit Creek and Squaw Creek sub-watersheds to date. As funding becomes available, future watershed planning efforts will be implemented.

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



2 Program Management

This Chapter describes the organizational structures of the Village, the County and IEPA. It further discusses the roles and responsibilities of the various involved parties.

Implementation of this SMPP

The SMPP includes detailed discussions on the types of tasks that are required to meet the permit conditions under the NPDES II program and how to perform these tasks. **Appendix 5.15** includes related tracking forms. The tracking forms are broken out into three categories (based on the frequency of occurrence). There are three different tracking forms included: Annual, As-Needed and On-Going. These forms should be printed annually and the progress of all tasks tracked. At the end of the yearly reporting period (March 1 – February 28/29) the forms should be filed in a binder to document SMPP related activities to 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 Village's website.

Intra-Department Coordination

The Board of Trustees is the policy and budget setting authority for Village. The Public Works Department with the assistance of the Code Enforcement staff and Fire Districts support the implementation of this SMPP. The Stormwater Coordinator has primary responsibility for managing the overall program.

Stormwater Coordinator

The Village Engineer is the Stormwater Coordinator and is responsible for the oversight and implementation of this SMPP. The Stormwater Coordinator has many different responsibilities, he/she:

- is the lead contact for coordination with the Lake County Stormwater Management Commission, the Illinois Environmental Protection Agency, contractors, the development community and other external regulatory agencies;
- understands the requirements of ILR40, ensures that the SMPP meets the requirements of the permit and that the Village effectively implements the SMPP;
- ensures, or assists the Enforcement Officer in ensuring, that the Village) complies with all minimum Watershed Development Ordinance (WDO) provisions;
- ensures that the Municipal Facilities comply with all minimum ILR40 permit requirements;
- is aware when a Municipal Project is required to be authorized under the ILR10 permit. In these cases the Stormwater Coordinator should ensure that the NOI is received by IEPA at least 30 days prior to the start of construction; and

- assists the development community in understanding when a ILR10 permit is required and whether construction sites comply with the general ILR10 and WDO permit conditions; and
- should understand the role illicit discharges play in the overall NPDES II program. In general, an incidence of non-compliance 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 IEPA.

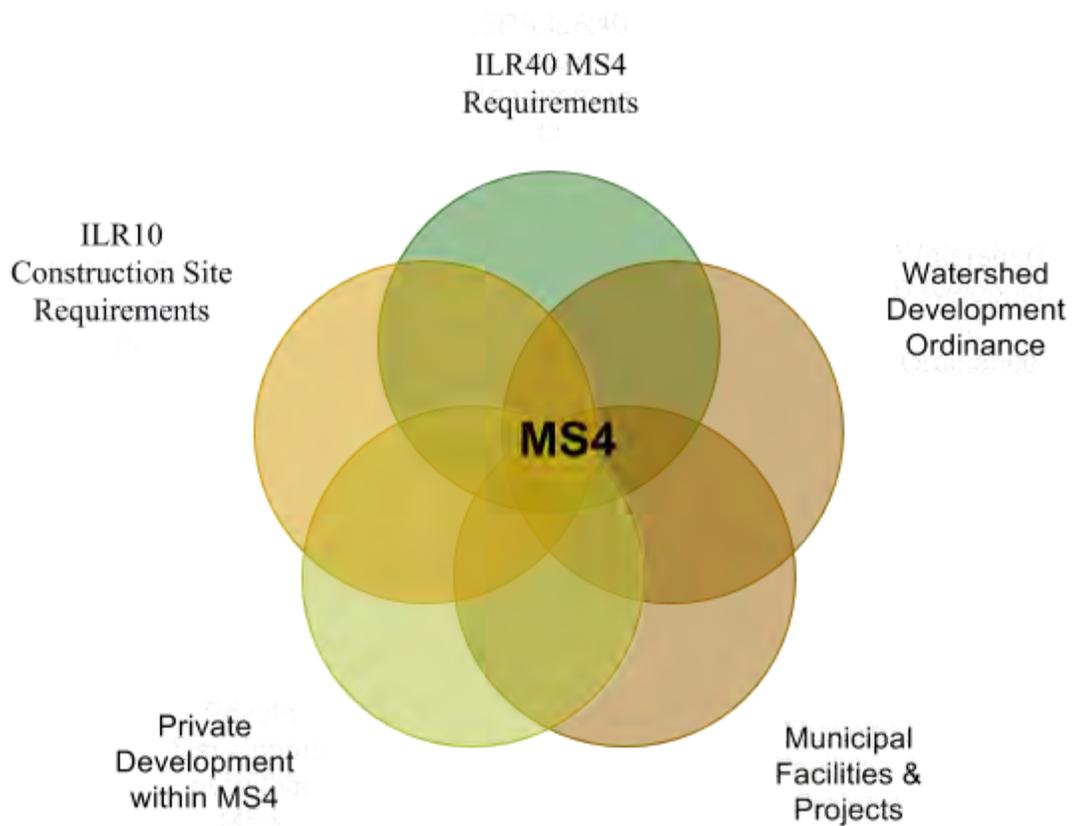


Figure 2: Roles of MS4
provided by Gewalt Hamilton & Associates

Public Works Department- Engineering

Engineering personnel support the Stormwater Coordinator in obtaining compliance with both the NPDES and WDO programs.

The Village Engineer is also the Enforcement Officer with respect to the administration and enforcement of the Lake County Watershed Development Ordinance (WDO). The design and construction of all public projects shall comply with the WDO. As the Enforcement Officer, the Village Engineer has the responsibility to concur that projects meet WDO standards prior to the issuance of permits, and oversee site inspections during construction. Refer to Chapter 3 for additional information on this process.

Public Works Department- Operations

Infrastructure maintenance activities within the MS4 are carried out by Public Works personnel. Public Works personnel are designated as the primary entity responsible for performing the duties specified under Chapter 3 Illicit Discharge Detection and Elimination and Chapter 3 Pollution Prevention and Good Housekeeping.

Coordination with Lake County Stormwater Management Commission

Coordination between the MS4 and the Lake County Stormwater Management Commission (SMC) occurs through both participation in the SMC sponsored MAC forums and through the Certified Community Status under the Lake County Watershed Development Ordinance (WDO). The MS4's Stormwater Coordinator is the lead contact for participation in the MAC forums. If the MS4 is a Certified Community, the MS4's Enforcement Officer is responsible for enforcement of the WDO and is designated by the MS4 to the SMC.

Coordination with Consultants

The MS4 may enlist the services of consultants to assist in the implementation of the WDO (including, but not limited to, plan review, site inspections and enforcement), and the design of MS4 projects. The Administrator has the responsibility of administering these contracts.

Coordination of Contractors

The Village of Vernon Hills may hire contracted services. The Village also has a responsibility to hire contractors who are knowledgeable of the applicable requirements of the ILR40 and ILR10 permits. The Village shall provide appropriate training, or require documentation that appropriate training has been attended, for all contractors responsible for municipal green infrastructures.

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. The Public Participation and Involvement Program of this SMPP is discussed in Chapter 3. The Public has the opportunity to comment on

proposed preliminary and final plats through the Plan Commission and Municipal Board process established in the Municipal Code.

Coordination with the IEPA

The Village is required to complete annual reports which describes the status of compliance with the ILR40 permit conditions and other related information as presented on the annual report template provided by the QLP. The annual report must be posted on the Village's website and submitted to the IEPA by the first day of June each year. Annual reporting to IEPA should consist of “implemented SMPP” for all tasks completed in accordance with this SMPP. Additional information should be provided for areas of enhancement or tasks not completed.

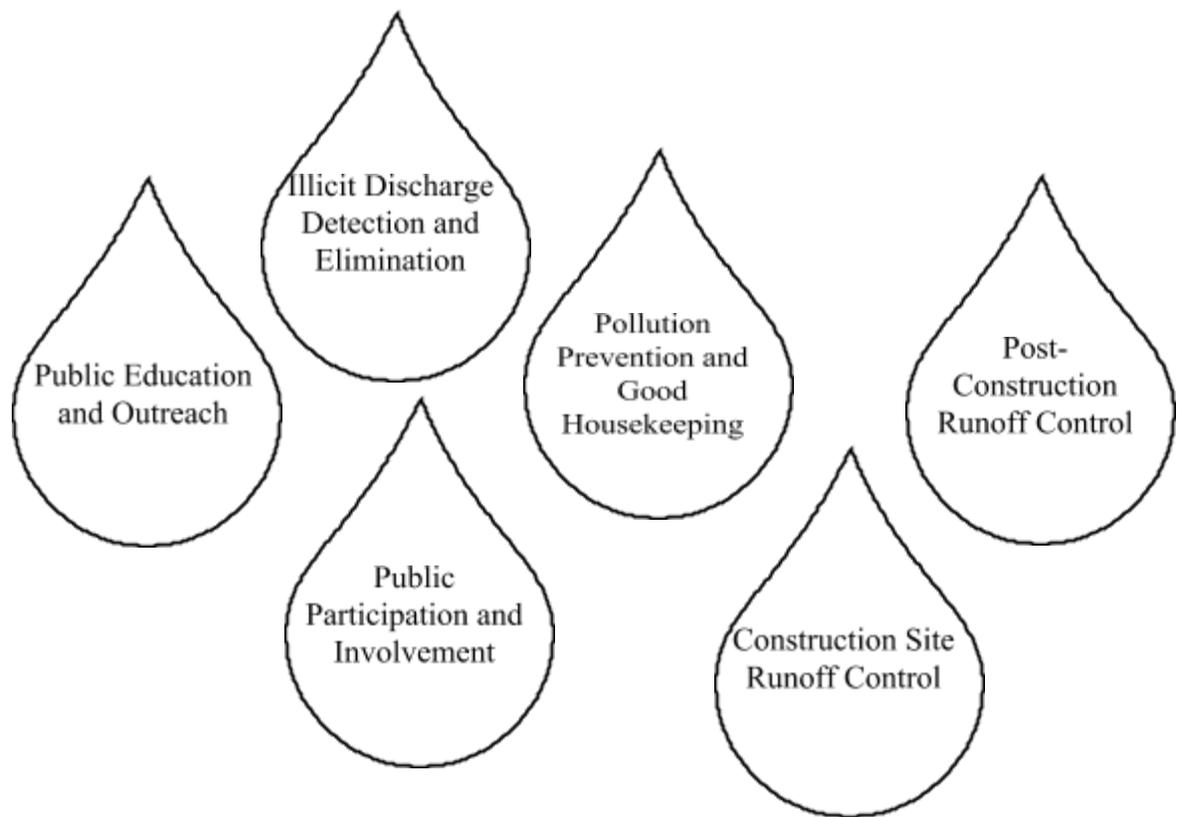
Records regarding the completion and progress of the SMPP commitments must be kept by the community. The task sheets, described in Chapter 2, should be updated throughout the year. The completed task sheets should be located in a binder with necessary supporting documentation. The binder must be available for inspection by both IEPA and the general public.

Coordination with the Development Community

The Village of Vernon Hills has a responsibility to assist the development community in understanding when a ILR10 permit is required and whether construction sites comply with the general ILR10 and WDO permit conditions. The Village should understand the role illicit discharges play in the overall NPDES II program. In general, an incidence of non-compliance 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 IEPA.

Furthermore, the municipality has a responsibility to inform the development community that they are required to hire contractors which meet the qualifications necessary under the program, refer to Chapter 3 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 describes the efforts to educate the public about stormwater pollution and stormwater pollution prevention. The manner in which Village incorporates public participation and involvement into the SMPP is explained in Chapter 3. Chapter 3 describes the approach to

detecting and eliminating stormwater illicit discharges. Construction and post construction runoff control is addressed in Chapters 3. Lastly, Chapter 3 discusses responsibilities for the care and upkeep of its general facilities, associated maintenance yards, and municipal roads and to minimize pollution. This chapter also discusses necessary training for employees on the implementation of the SMPP.

Public Education and Outreach



The Village of Vernon Hills 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 Village targets public schools, public libraries, developers, contractors, homeowners, business owners, and the remaining general public as part of this Public Education and Outreach Program.

Village of Vernon Hills, in cooperation with the 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 regarding stormwater BMP, water quality BMP, and proper hazardous waste use and disposal.
- Maintain a water quality/stormwater section in the Village newsletter distributed by the Village.
- Attend/sponsor outreach activities to homeowners / property owner associations, commercial / industrial facilities, schools, and other events.
- Coordinate, publicize, and participate in bi-annual SWALCO events.
- Maintain Village website which offers links to additional educational information, and ways to contact Village personnel.

Distribution of Paper Materials

Village of Vernon Hills actively pursues the acquisition of educational sheets prepared by the QLP, IEPA, USEPA, Center for Watershed Protection, Chicago Metropolitan Agency for Planning “CMAP”(previously Northeastern Illinois Planning Commission “NIPC”), University of Wisconsin Extension, Solid Waste of Lake County (SWALCO) and other agencies and organizations. Village maintains a list of available publications in the SMPP binder and on the web-site. Village lists its telephone number on all Village outreach publications to encourage residences to contact the Village with environmental concerns.

Types of materials distributed include:

- The “Guidelines for Draining Swimming Pools” door hanger,
- The “Protect Our Water” door hanger,
- Informational sheets/pamphlets regarding storm water best management practices,
- Informational sheets/pamphlets regarding water quality best management practices,
- Informational sheets/pamphlets regarding construction site activities (soil erosion and sediment control best management practices),
- Informational sheets/pamphlets regarding the hazards associated with illegal discharges and improper disposal of waste and the manner in which to report such discharges.
- Informational sheets/pamphlets regarding green infrastructure strategies such as green roofs, rain gardens, rain barrels, bioswales, permeable piping, dry wells and permeable pavement.
- Informational sheets/pamphlets published by SWALCO regarding proper hazardous waste use and disposal, and

Publications are provided in the following manner:

- At take-a-away racks located at the Public Works Department,
- At outreach events,
- At Earth Day/Arbor Day/Public Works Open House events held in the community, and
- At scheduled meetings with the general public. These meetings are on an as needed or as requested basis and may be with the home owners associations, businesses, or local schools.

Classroom Education



When permitted, the Village conducts classroom presentations at local schools. A SWALCO representative prepares the presentation with the Village support. The Village keeps a log of event dates and participating schools.

Web Site



The Village of Vernon Hills web site includes stormwater quality specific elements. The web-site gives information regarding water quality, solid waste and hazardous material, green infrastructure, illicit discharges, stormwater and general environmental health, refer to Chapter 3 for a more detailed description of the type of information to be posted. The web-site is updated by Village staff. A significant amount of information is made available through links to other educational and informational sites.

This SMPP, the NOI and any previous annual reports must be posted on the Village's website. Each years annual report must be posted on the Village's website and submitted to the IEPA by the first day of June each year.

Outreach Events

When possible, Village of Vernon Hills 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 home owners associations, lake associations, businesses, and neighborhood groups.

Technical Workshops



Periodically, the QLP hosts or co-host 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, Villages, and other stakeholders. The Village publicizes these events at take-a-way racks and on the web-site.

Storm Drain Stenciling & Markers



The Village of Vernon Hills supports the efforts of private entities to stencil or apply stickers to inlets, and their purchase of factory stamped inlet grates. These efforts apply messages at storm drain inlets with the intent of assisting in educating the public about stormwater runoff pollution. Village efforts include:

- Providing the “Guide to Storm Drain Marking” (by SMC) to Home Owners Associations, school groups etc. that express interest.
- Requiring all new development to furnish stamped inlet grates as of March 2009.

Household Chemical Wastes



The average garage contains a lot of products that are classified as hazardous wastes, including paints, stains, solvents, used motor oil, pesticides and cleaning products. While some household chemical waste (HCW) may be dumped into storm drains, most enters the storm drain system as a result of outdoor rinsing and cleanup. Improper disposal of HCW can result in acute toxicity to downstream aquatic life. The desired neighborhood behavior is to participate in HCW collection days, and to use appropriate pollution prevention techniques when conducting rinsing, cleaning and fueling operations. The Village supports the initiatives of the Solid Waste Agency of Lake County to employ a range of tools to improve resident participation. These include:

- Mass media campaigns to educate residents about proper outdoor cleaning/ rinsing techniques
- Conventional outreach materials notifying residents about HCW and collection days
- Providing disposal options for some HCW at the Public Works Department
- Providing mobile HCW pickup

Solid Waste Agency of Lake County (SWALCO)

SWALCO provides solid waste management programs to Lake County (in both incorporated and unincorporated areas). These programs are aimed at reducing our reliance on landfills through source reduction, recycling and energy recovery. In general, the programs help residents dispose of problem wastes, such as household chemicals, electronic equipment, and yardwaste. Their recycling programs are targeted at both commercial and residential markets in order to divert as much solid waste as possible from reaching landfills. They also administers its own public information and education efforts include the “Earth Flag” and “Earth Flag Every Day” programs in the schools, promoting SWALCO events, and publishing various resources.

The Village of Vernon Hills coordinates with SWALCO to participate in at least two collections per year. These collections encourage the proper disposal of waste materials. Typically there is a spring event for disposal of paint and solvents and a spring through summer clean-up event that facilitates proper disposal of electronic devices, shredding, battery disposal and other waste materials. The locations and dates of these events can be found on the Village website and the

Lake County website At a minimum, the Village encourages participation in the event by publicizing these special collections on the Village's and SWALCO web-sites. The Village maintains a log of event dates and quantities collected.

Septic System Maintenance

Failing septic systems can be a major source of bacteria, nitrogen, and phosphorus, depending on the overall density of systems present in a subwatershed . Failure results in illicit surface or subsurface discharges to streams. Septic systems are a classic case of out of sight and out of mind. Many owners take their septic systems for granted, until they back up or break out on the surface of their lawn. Subsurface failures, which are the most common, go unnoticed. In addition, inspections, pump outs, and repairs can be costly, so many homeowners tend to put off the expense until there is a real problem. Lastly, many septic system owners are not aware of the link between septic systems and water quality. The Village requires the extension of sanitary sewer systems and has eliminated septic systems Village-wide to reduce this concern.

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. Efforts to mitigate these concerns include:

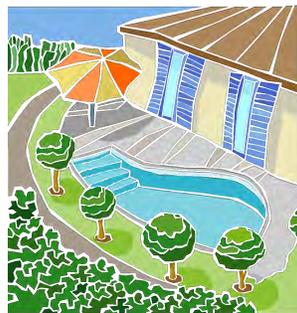
- Outreach materials distributed at auto parts store and service stations
- Community oil recycling centers at the Public Works Department
- Directories of used oil collection stations
- Pollution hotlines
- Fines and other enforcement actions

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. Communities have utilized many innovative outreach tools to promote environmentally safe car washing, including:

- Media campaigns including participation in creation of Countywide video
- Brochures promoting nozzles with shut off valves
- Storm drain plug and wet vac provisions for charity car wash event

Pool Dewatering



Chlorinated water discharged to surface waters, roadways or storm sewers has an adverse impact on local stormwater 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 the normal algal and 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 right-of-way **including storm sewer inlets**.

The Village has acquired a door hanger and fact sheet, *Pool Dewatering Fact Sheet*, stating the above information. Outreach efforts (such as including information in the news letter, other mail-outs or adding information to the take-a-way racks) should occur each fall, preferably September.

Public Participation and Involvement

The public participation and involvement 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-yr basis, or as necessary.

Public Review Process

Prior to the acceptance of the SMPP, the draft document was presented to the Committee of the Whole. Comments on the SMPP are continually accepted through the web-site, phone calls or other media. Comments are evaluated for inclusion and incorporated into the next revision of the SMPP as appropriate. Present each years annual report to the Board during an open meeting.

Complaints, Suggestions and Requests



Calls are screened, logged and routed to the appropriate department for action. General program related calls are directed to the Stormwater Coordinator, or designee. Construction activity related telephone calls are directed to the Enforcement Officer, or designee. Illicit Discharge, storm sewer, and other related stormwater runoff concerns are directed to the Public Works Department. The Village maintains a website which enables and encourages public contact on these issues. Service request forms are included.

Watershed Planning and Stakeholders Meetings

The Village of Vernon Hills participates (and encourage the participation of local stakeholders) in QLP or other sponsored watershed planning events. The Village will adopt Watershed Plans in coordination with the QLP.

Illicit Discharge/Illegal Dumping Hotline

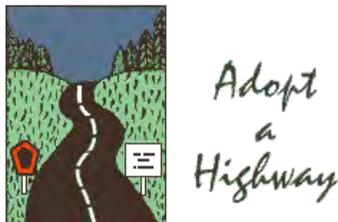


Village of Vernon Hills maintains, operates and publicizes a call in phone number where parties can contact the Village with environmental concerns. Primary advertisement venues include the website and all related municipal publications. Telephone calls received from residents, other internal Departments or other agencies are logged on the **Indirect Illicit Discharge Tracking Form (Appendix 5.13)**. The Public Works Director, or his designee, should transfer information from the tracking form to the **Indirect Illicit Discharge Summary Form** monthly. This tracking form should be reviewed with the Stormwater Coordinator annually to determine if trends can be seen and if there are additional outreach efforts needed. Lake County Public Works maintains the sanitary sewer system and inter-agency coordination efforts are required regarding findings.

LCSMC Municipal Advisory Committee (MAC)

The Village of Vernon Hills participates in MAC meetings and events hosted by the QLP.

Adopt-A-Highway



Village of Vernon Hills, in a cooperative partnership with the IDOT, supports Adopt-A-Highway Programs for state roadways within the municipal limits. The objective of the program is to improve and promote the image of the entire community by reducing potential illicit discharges. Participation meets the Program Policy and Safety Guidelines established by IDOT in a separate document.

Illicit Discharge Detection and Elimination¹



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.

Regulatory Authority

Effective implementation of an IDDE program requires adequate legal authority to remove illicit discharges and prohibit future illicit discharges. This regulatory authority is achieved through adoption of the Lake County Watershed Development Ordinance (WDO) and Village IDDE Ordinance. Additionally, IEPA has regulatory authority to control pollutant discharges and can take the necessary steps to correct or remove an inappropriate discharge over and above SM4 jurisdiction.

Watershed Development Ordinance

Several provisions of the Lake County Watershed Development Ordinance (WDO) prohibit illicit discharges as part of the development process. These provisions are only applicable for regulated development activities as defined by the WDO. Regulated developments are required to meet the soil erosion and sediment control standards of the WDO. Furthermore, the WDO requires that the applicant prohibit illicit discharges into the stormwater management system generated during the development process.

The WDO allows the Village of Vernon Hills to require inspection deposits, performance bonds, and to adopt/enforce violation procedures. These tools assist in achieving complaint construction sites. These items are further discussed in Chapters 3.

¹ Section 3.3 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).

Illicit Discharge Ordinance

The Village of Vernon Hills created and adopted an Illicit Discharge Ordinance. The Ordinance is the mechanism to allow for the execution and enforcement of the SMPP.

Subdivision and Development Ordinances

The Village of Vernon Hills created and adopted Subdivision and Development Ordinances. These Ordinances are administered by the Community Development and Public Works Departments and can be used to further support the activities required by the SMPP.

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. The Village of Vernon Hills has joined with Wastewater Treatment Plant owners and other MS4s to create a stakeholders group called the DesPlaines River Watershed Workgroup (DRWW). Participation in this group and their monitoring and sampling efforts is consistent with the IEPA goals which provides for shared monitoring along streams with outfalls. The shared sampling results assist in better identification of areas of concern by enhanced Flow Monitoring, Bioassessment Monitoring and Water Chemistry Monitoring.

The outfall mapping is provided by the Village of Vernon Hills' GIS Coordinator and supported by the SMC's stream condition surveys. The wet weather monitoring is conducted as in-kind services from Lake County Public Works, Lake County Health Department and North Shore Water Reclamation District.

To promote a better understanding of and for educational purposes, the following information is provided. The Village of Vernon Hills outsourced its sampling program since joining the DesPlaines River Watershed Workgroup (DRWW) and does not perform the previously conducted in-house sampling. When the monitoring information is compiled the Village of Vernon Hills will work with the DRWW to review areas of concern.

Identifying Outfalls and Receiving Waters

An Outfall (is defined at 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, or 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 definitions 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.

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.

The outfall inventory was completed by Village of Vernon Hills. This investigation was completed with a GPS receiver (Trimble Unit) and ArcPad software. The outfall inventory was supplemented by data provided by SMC, for several of the receiving waters, using their prior stream inventory work. 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 from the GIS Department.

The outfall map should be revised annually to incorporate permitted outfalls associated with new developments. An outfall inventory should be performed every 5 years; the focus of this effort is to search for new outfalls (i.e. those not already included on the existing ***Outfall Inventory Map***). The search for new outfalls should be combined with the pre-screening efforts.

Potential Sources of Illicit Discharges

Table 1 shows that direct connections to storm sewer systems most likely originate from commercial/industrial facilities. Thus, the focus on Chapter 3 is on the identification of illicit discharges from commercial/industrial facilities.

Table 1: 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
Sanitary Wastewater	√	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.

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 groundwaters,
- 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, and
- Street wash water.

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 2: 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 3: Color of Potential Illicit Discharges (adapted from CWP)

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

Table 3 (continued)

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

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 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 4
Turbidity Severity Examples
 (adapted from CWP)



Turbidity
 Severity 1



Turbidity
 Severity 2



Turbidity
 Severity 3

Floatables

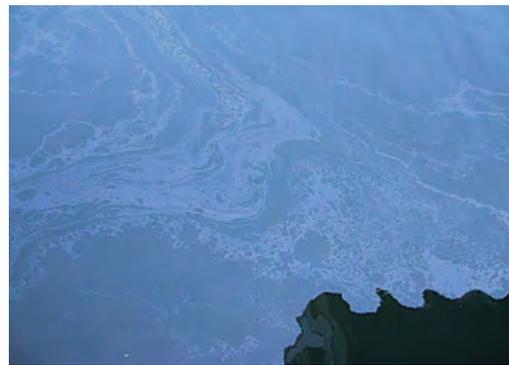
The presence of sewage, floating scum, foam, oil sheen, or other materials can be obvious indicators of an illicit discharge. However, trash originating from areas adjacent to the outfall is this section.

- 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 doesn't break apart and quickly flows back together.

Figure 5
Natural Sheen versus Synthetic
(adapted from CWP)

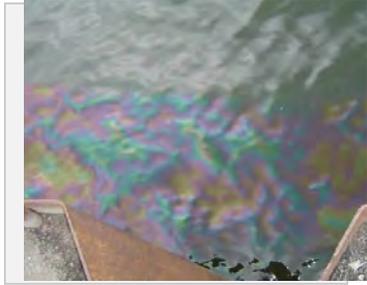


Sheen from natural bacteria forms a swirl-like film that cracks if disturbed



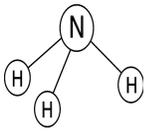
Synthetic oil forms a swirling pattern

Table 4: Floatables in Potential Illicit Discharges (adapted from CWP)

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

TESTING INDICATORS

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, and 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, and
- Copper wire production.

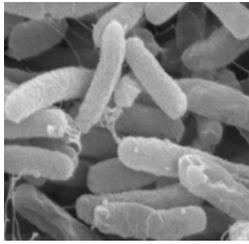
In each of these industries, wastes containing copper would normally be discharged to a treatment facility. Sludge from the waste treatment facility, whether on-site (including lagooning) or publicly operated treatment facilities, would contain copper. If the sludge (or the treatment process) is not 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 Boron and Surfactants descriptions.

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. A Fecal Coliform count greater than 400 per 100 mL indicates waste water contamination.

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. Fluoride levels greater than 0.6-mg/L indicate 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 indicate 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, and
- Ferro-alloy manufacturing.

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

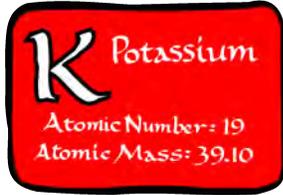
pH



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 indicate waste water or wash water discharge respectively. A potassium value of >20 -mg/l is a good indicator for industrial discharges.

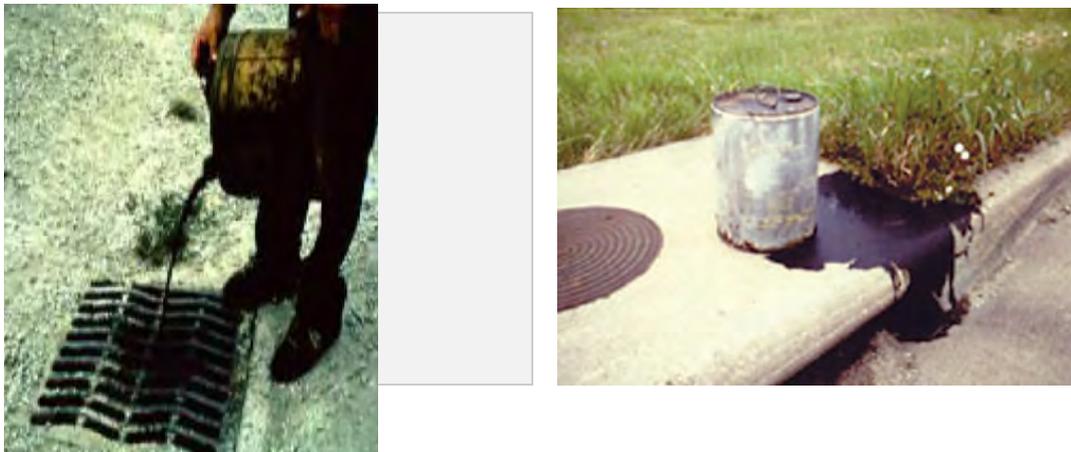
Surfactants



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 washwater 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).

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.

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, Vehicle Fluid Maintenance and Pool Dewatering programs are designed to minimize dumping; these programs are described in Chapter 3. Additionally, the Village maintains a Illegal Dumping Hotline which is described in Chapter 3. The procedure for handling a dumping incident is described in Chapter 3.

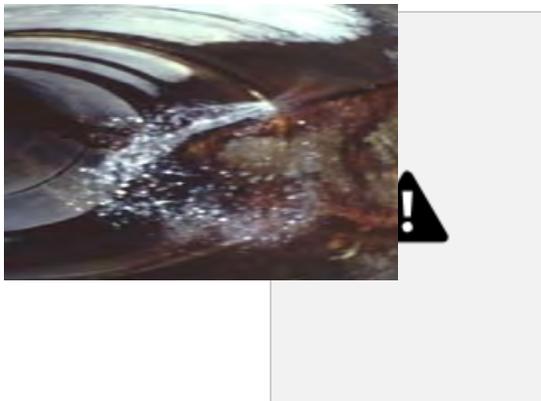
Outdoor washing activities

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, and 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 whereas observed/documentated routine washing activities should be addressed through the Removal of Illicit Discharges Procedure in Chapter 3.

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.

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

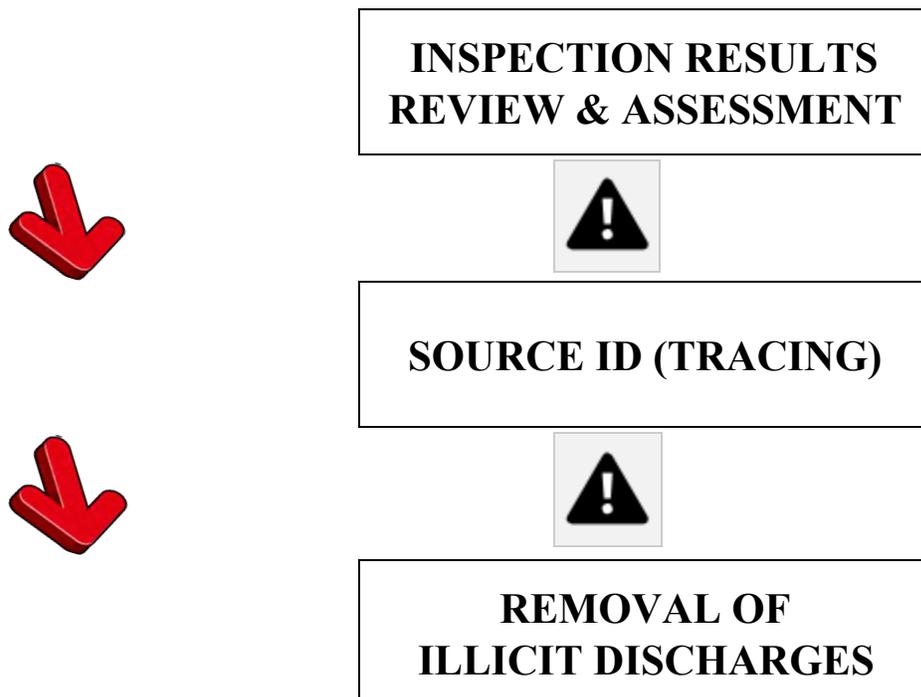
pollutants are present. If the presence of pollutants is indicated, the detective work of identifying the source of the discharge can begin. Once the source is identified, it can then be corrected. The Village of Vernon Hills does not own and operate the sanitary sewer system and therefore, coordination with Lake County Public Works maybe required to correct improper discharges. The Building Commissioner and Village Public Works Director will also communicate with the Fire Districts as necessary to resolve Illegal Discharges into the lake and stream systems.

Follow Up Investigation and Program Evaluation

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*),
- 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.

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 8** provides a flow chart to aid in follow-up investigations of potential illicit discharges.





PROGRAM EVALUATION

Figure 8: 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 DRWW monitoring and sampling. This element of the program serves to detect and remove pollutant sources. Upon determination of areas of concern from the monitoring and sampling, this action is accomplished by reviewing the *Outfall Inspection Screening Summary Form* 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.



INDEPENDENT VERIFICATION

If the initial DRWW monitoring and sampling assessment identifies potential illicit discharges (through either the on-site or off-site testing procedures), additional sampling is required. The results of the inspection and testing should be discussed with the Stormwater Coordinator. Contract an independent laboratory to take and test an additional sample and verify preliminary finding. Use the established procedure to coordinate the independent laboratory sample and testing.

SOURCE IDENTIFICATION

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 map and can be obtained from the GIS Coordinator. 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, additional coordination with Lake County Public Works maybe needed.

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.

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. The method of testing must be approved by the Public Works Director prior to testing. Potential testing methods include fluorometric dye testing, smoke testing, and/or remote video inspections. Once identified, clearly log the contributing source. This work may need to be outsourced to Lake County Public Works or a professional consultant.

Removal of Illicit Discharges

Eight steps are taken to definitively identify and remove an inappropriate discharge to the storm sewer system. These steps are as follows:

- Step 1. Have an outside laboratory service take a grab sample and test for the illicit discharge at the manhole located immediately downstream of the suspected discharge connection.
- Step 2: Conduct a meeting with appropriate personnel likely including Public Works Director, Community Development Department Code Enforcement Officer, Plumbing Inspector, Building Commissioner, Stormwater Coordinator and Lake County Public Works staff to discuss inspection and testing results and remedial procedures.
- Step 3: The Lake County Public Works Administration shall send a notification letter to the owner/operator of the property/site suspected of discharging a pollutant. The letter should request that the owner/operator describe the activities on the site and the possible sources of non-stormwater discharges including information

regarding the use and storage of hazardous substances, chemical storage practices, materials handling and disposal practices, storage tanks, types of permits, and pollution prevention plans.

- Step 4: Arrange a meeting for an inspection of the property with the Lake County Public Works Personnel, the Building Department Code Enforcement Officer, and the owner/operator of the property where the pollution source is suspected. Most illicit connections and improper disposal can probably be detected during this step. Notify the site owner/operator of the problem and instruct them to take corrective measures.
- Step 5: Conduct additional tests as necessary if the initial site inspection is not successful in identifying the source of the problem. The Lake County Public Works Director is responsible for determining the appropriate testing measure to pinpoint the source.
- Step 6: If the owner/operator does not voluntarily initiate corrective action, the Community Development Department Code Enforcement Office issues a notification of noncompliance. The notification includes a description of the required action(s) a time frame in which to assess the problem and take corrective action. Upon notification of noncompliance, the owner can be subject to any penalties stipulated in the IDDE Ordinance.
- Step 7: Conduct follow-up inspections after stipulated time frame has elapsed to determine whether corrective actions have been implemented to: 1) remove the illicit connection or 2) eliminate the improper disposal practice.
- Step 8: If corrective actions have been completed (i.e. and the illicit discharge has been eliminated) the Lake County Public Works Administration sends a notification of compliance letter to the owner/operator of the property/site suspected of discharging a pollutant.

If corrective actions have not been completed an additional internal meeting with appropriate Municipal and County personnel is held to determine appropriate steps to obtain compliance. Appropriate actions may include monetary or other penalties.

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

Program Evaluation

Review the results of the Des Plaines River Watershed Workgroup (DRWW) monitoring programs 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 monitoring results to determine whether any such obvious conclusions can be made. If so, these conclusions may guide future monitoring activities.

The monitoring will determine the effectiveness of the program on a long-term basis and show ongoing improvement through reduction in levels. It is logical to assume that after several years of annual screening, the majority of the dry-weather pollution sources will be eliminated.

Construction Site Runoff Control



The goal of the Lake County Watershed Development Ordinance (WDO) is to ensure that new development does not increase existing stormwater problems or create new ones. The WDO establishes countywide standards for runoff maintenance, detention sites, soil erosion and sediment control, water quality, wetlands and floodplains. These provisions are only applicable for regulated development activities as defined by the WDO. Applicants that hydrologically disturb greater than 1-acre are also required to seek coverage under the statewide construction general permit by filing a Notice of Intent (NOI) with IEPA.

The WDO is implemented primarily at the local level. In October of 2008, forty-two of fifty-three municipalities in the county were "Certified Communities." The designation allows those communities to enforce WDO standards within their own jurisdictions. SMC administers the WDO and issues permits for the developments within the Non-Certified Communities.

The Village of Vernon Hills has adopted the Lake County Watershed Development Ordinance (WDO) and is currently a Certified Community for the review, permitting, inspection and enforcement of the provisions of the WDO. The community designates an Enforcement Officer; this person is responsible for the administration and enforcement of the WDO. The Village has created an Inspection and Violation Notification Procedure to ensure compliance with the WDO.

Regulatory Program

Applicants are directed to the Public Works Engineering Division for information pertaining to the permitting process. Developments that exceed the WDO minimum thresholds are provided with a Lake County Watershed Development Ordinance (WDO) application form. Thru the Community Development Department, applicants submit the completed form and supporting documentation to the Public Works Engineering Division for review and comment. After the Public Works Engineering Division concurs that the applicable provisions of the WDO have been addressed, a 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, 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.
- Waste control;
- Runoff Volume Reduction Hierarchy and Water Quality;
- Established inspection duties for the applicant and procedures for inspections;
- Record keeping and reporting procedures;
- Security deposits to ensure faithful performance;
- Enforcement measures to achieve compliance; and
- One or two year warranty period, for applicable developments.

The Lake County Technical Reference Manual and the Illinois Urban Manual 2002, 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 1-acre are also required to seek coverage under the statewide construction general permit by filing a Notice of Intent (NOI) with 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).

Responsible Parties

Applicant

The applicant is ultimately responsible for ensuring compliant soil erosion and sediment 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).

DECI – Designated Inspectors

The purpose of the DECI program is to facilitate positive communication between the Village and the permit holder by creating a single point of contact for soil erosion/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/sediment control Best Management Practices.

The applicant, for sites that exceed the WDO thresholds per Art. IV, Section B.1.j.2., is required to hire or employ a Designated Erosion Control Inspector (DECI).

- All development with 10 acres or more of hydrologic disturbance
- All development with 1 acre or more of hydrologic disturbance **and** regulatory floodplain **or** wetlands on site or on adjoining properties.

The DECI can work for the permittee's contractor, subcontractor, consultant, etc. He does not have to be a direct employee of the permittee. SMC keeps a list of DECIs that have been approved.

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

Sites that do not require a DECI may still require a designated inspector under the NPDES II permit process. Significant efforts have been made to minimize overlap between the two programs. Currently all sites with greater than 1-ac or more of hydrologic disturbance require a permit from IEPA and a designated inspector (which is more stringent than the DECI requirements). A designated inspector, under the IEPA program, does not need to be a DECI

recognized by SMC; however a DECI can fulfill both rolls. However, the site inspection logs can typically meet the permit conditions of both the WDO and the IEPA.

The DECI reports to the Enforcement Officer. However, SMC administers the DECI program. During the course of a project, the DECI must notify the EO within any if the development site is determined to be noncompliant with the soil erosion and sediment control plan. The Village's Stormwater Coordinator should also be contacted within 24-hours. It is highly recommended that the Stormwater Coordinator remind the DECI to also file an Incidence of Noncompliance (ION) with IEPA. If the discharge from the construction site enters a receiving water within the MS4 jurisdictional boundaries, it is highly recommended that the MS4 also file an ION with IEPA.

Enforcement Officer

The Enforcement Officer is responsible for administration and enforcement of the provisions of the WDO. Additionally, the Enforcement Officer is responsible for performing inspections and monitoring the 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 Appendix E of the WDO. 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 Enforcement Officer to ensure that all incidences of non-compliance received from a DECI are resolved. Furthermore it is the Enforcement Officer's right and the responsibility to notify the SMC if a DECI listed by SMC is not adequately performing the DECI responsibilities. SMC may remove a DECI from the approved DECI list. However, a DECI may be removed from a development by the Enforcement Officer at their sole discretion.

The Village of Vernon Hills has the responsibility to designate a contact with both the SMC and the IEPA. The Village has designated Public Works Director to fulfill both roles. SMC refers to this person as their community contact. The community contact provides support and coordinates with SMC on development related activities within the community. The IEPA considers this person the Stormwater Coordinator. Chapter 2.2.A provides additional information regarding the role of the Stormwater Coordinator.

Minimum Construction Site Practices

A site plan is required to comply with minimum prescribed practice requirements set forth in the WDO. The WDO also allows for the Village 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 Lake County Technical Reference Manual (TRM) and other reference materials identified in Appendix 5.17 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, and
- Construction Details.

Site Plan Review

The Village of Vernon Hills is a Certified Community for the enforcement of the Stormwater Provisions of the WDO. The Public Works Engineering Division provides applicants with a variety of documents necessary to obtain municipal permits. Included in the packet is relevant Watershed Development Permit (WDP) information including the performance guarantee information and WDP application form.

The Public Works Engineering Division 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. After the Public Works Engineering Division concurs that the applicable provisions of the WDO have been addressed a permit is issued. The permit lists any additional conditions that are applicable for the development, including providing prior notification of the pre-construction meeting to the Village. Village attendance of the pre-construction meeting shall be made a condition of the permit for all major developments. The applicant is required to post the permit at the construction site.

Site Inspection Procedures

Representatives of the Village of Vernon Hills 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 Village may inspect site development at any stage in the construction process. For major developments, the Village shall conduct site inspections, at a minimum, at the end of the construction stages 1 and 7 listed below. 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. Upon completion of installation of sediment and runoff 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 deadlines,
6. After every seven (7) calendar days or storm event with greater than 0.5-inches of rainfall,
7. After final stabilization and landscaping, prior to removal of sediment controls.

Site Inspection Process:

- The Village attends the pre-construction meeting on applicable development sites. During the pre-construction meeting the ***Pre-Construction Meeting Form (Appendix 5.6)*** is filled out by the Village attendee. It is also recommended that the inspector request to see the SMPP and IEPA NOI for applicable construction sites.
- The applicant notifies the Village when initial sediment and runoff controls measures have been installed.
- The Village inspects the initial sediment and runoff control measures and authorizes the start of general construction.
- The Village inspects the stormwater management system and authorizes additional site improvement activities.
- The Village performs site inspections at the recommended intervals listed above and completes the ***SE/SC Inspection Form (Appendix 5.7)***.
- For sites that exceed the WDO thresholds per Art. IV, Section B.1.j.2. a DECI is required, refer to Chapter 3.4.B.2 for additional information regarding the program.
- The Village requires as-built documentation of the stormwater management system prior to final site stabilization. Tags of the seed mixes are kept by the developer for inspection and approval. Upon approval of the as-builts, the applicant shall permanently stabilize the site.

Complaints

The Village frequently receives phone calls regarding a development, either during the review or construction phase. Both site design and construction related phone calls are directed to the Village's Enforcement Officer, DECI, or designee, and logged. Site design comments are handled on a case by case basis. Construction related calls are typically addressed by performing a site inspection. The Public Works Engineering Division performs the SE/SC site inspection oversight for Subdivision and Non-residential development during the initial construction phase until the placement of the parking lot. This maximizes the time that Village DECI's are on-site. The Community Development Department provides the SE/SC oversight after the parking lots or roadways are installed and for single family construction projects.

Performance Guarantees

Performance Guarantee (surety) is required for public 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 Village for their review/approval. The required surety amount shall be 100% of Village approved EOPCC for public or quasi public used properties and 50% of Village approved EOPCC for private used properties.

The Village withholds the issuance of a full Certificate of Occupancy until after site stabilization is complete to ensure that the vegetation is established. Additional sureties are required based on the development. Typical application is the use of a two- year maintenance guarantee after the completion of all punchlist items and formal acceptance by the Village Board. The applicant may apply for reductions of surety. Refer to the Development Ordinance for information regarding specific surety requirements.

Violation Notification Procedures

In general the compliance due date should be within 5-working days. However, if the inspector determines that the violation is or will result in significant environmental, health or safety hazards a 24-hour due date should be set. For time-critical violations, the developer should also be advised to complete a Notice of Incidence report with IEPA for all sites that were required to obtain an NOI with IEPA. If the discharge from the construction site enters a receiving water within the MS4 jurisdictional boundaries, it is highly recommended that the MS4 also file an ION with IEPA.

The **SE/SC Inspection Form** is found in **Appendix 5.7**. Step 1 can be initiated by observation of a violation during a routine inspection, or in response to a notice of noncompliance received from a DECI.

Step 1: Violation Is Observed

- The inspector completes the **SE/SC Inspection Form**.
- Photographs of the violation(s) should be taken and saved.
- The Violation shall be described to the construction site contact.
- A copy of the **SE/SC Inspection Form** is provided to the contractor and the developer. The **SE/SC Inspection Form** indicates the remedial measures required and a maximum time frame for action.
- At the end of the indicated time frame the Village performs a follow-up site inspection. The inspector attempts to schedule the follow-up inspection with the construction site contact.

Step 2: 1st Follow-Up Site Inspection

The construction site contact shall be notified of the anticipated inspection time. The site is inspected including all items previously documented on the previous **SE/SC Inspection Form**. The inspector will determine if the remedial measures have all been satisfactorily addressed, substantially completed, or if significant non-compliance remains.

- If the remedial measures have been satisfactorily addressed then the **SE/SC Inspection Form** is filled out indicating compliance and provided to the contractor and developer.
- If the inspector determines that the remedial measures have been substantially completed, but not entirely resolved, the inspector shall follow Step 1 above.
- If the inspector determines that the remedial measures have not been substantially completed, the inspector shall follow Step 3 discussed below. Photographs of the violations should be taken and saved.

Step 3: 1st Notice of Violation

A formal **Notice of Violation** letter will be sent to the contractor and developer; see sample letter in **Appendix 5.8**. A copy of the Notice of Violation shall also be provided to the Building Department. The letter will include the following information.

- Description of the violations (including ordinance provisions),
- Mandatory remedial measures, and
- Maximum time frame for resolution (typically 5 working days),

Step 4: 2nd Follow-Up Site Inspection

The inspector will determine if the remedial measures have all been satisfactorily addressed, substantially completed, or if significant non-compliance remains.

- If the remedial measures have been satisfactorily addressed then the **SE/SC Inspection Form** is filled out indicating compliance and provided to the contractor and developer.
- If the inspector determines that the remedial measures have been substantially completed, but not entirely resolved, the inspector shall follow Step 1 above.
- If the inspector determines that the remedial measures have not been substantially completed, the inspector shall follow Step 3 discussed below. Photographs of the violations should be taken.

Step 5: 2nd Notice of Violation

Depending on the severity of the outstanding violations the inspector may issue a Red Tag and a Conditional Stop Work Order upon completion of the inspection. The Stop Work Order allows for the resolution of the violation but no other on-site improvements. Building and/or Occupancy Permits will not be issued and surety reductions will not be entertained until the violation is resolved. A formal **Notice of Violation** letter will be sent, via certified mail, to the contractor and developer; see sample letter in **Appendix 5.8**. A copy of the Notice of Violation shall also be provided to the Building Department. The letter will include the following information.

- Description of the violations (including ordinance provisions),
- Mandatory remedial measures, and
- Maximum time frame for resolution (typically 5 working days).

Step 6: 3rd Follow-Up Site Inspection:

The inspector will determine if the remedial measures have all been satisfactorily addressed, substantially completed, or if significant non-compliance remains.

- If the remedial measures have been satisfactorily addressed then the **SE/SC Inspection Form** is filled out indicating compliance and provided to the contractor and developer.
- If the inspector determines that the remedial measures have been substantially completed, but not entirely resolved, the inspector shall follow Step 1 above.
- If the inspector determines that the remedial measures have not been substantially completed, the inspector shall follow Step 3 discussed below. Photographs of the violations should be taken and saved.

Step 7: 3rd Notice of Violation

The inspector issues a Red Tag and a Conditional Stop Work Order upon completion of the inspection, if one has not already been issued. The Stop Work Order allows for the resolution of the violation but no other on-site improvements. Building and/or Occupancy Permits will not be issued and surety reductions will not be entertained until the violation is resolved.

Representatives from the Community Development and Public Works Engineering Division shall conduct an internal meeting to discuss the violation and subsequent actions. These actions

may include: issuing fines at a rate of \$500/day per violation since the 1st notice of violation; draw from surety to enable Village to have the remedial measures corrected; seeking Village consul and pursuing injunctive or other legal relief.

A formal **Notice of Violation** letter will be sent, via certified mail, to the contractor and developer; see sample letter in **Appendix 5.8**. A copy of the Notice of Violation shall also be provided to the Building Department and the Village Administrator. The letter will include the following information.

- Request a meeting with the applicant/development and Village staff;
- Description of the violations (including ordinance provisions),
- Mandatory remedial measures,
- Maximum time frame for resolution (typically 5 working days), and
- States additional penalties or measures that will be imposed if the violation(s) persist.

Repeat Steps 6 & 7 until resolution

BMP Reference Information

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

- Native Plant Guide,
- Lake County SMC's Technical Reference Manual,
- Illinois Urban Manual,
- SMC's
 - soil erosion and sediment checklist,
 - soil erosion and sediment control notes,
 - typical construction sequencing,
- Construction details are available on the Village's website,
- Chicago Metropolitan Agency for Planning Course Manuals
- IDOT manuals,
- Center for Watershed Protection documents, and
- IEPA and USEPA publications.

Construction Site Waste Control

The WDO 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.

Development Tracking

The Village of Vernon Hills is working towards developing a tracking or database procedure. A MUNIS software module for permitting was purchased and implementation is scheduled for 2016.

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 WDO. At a minimum, protect drainage structures with inlet filter bags during construction activities.

Post Construction Runoff Control



The Village of Vernon Hills complies with NDPS permit requirements by incorporating Ordinance and BMP standards to minimize the discharge of pollutants of development 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 through the Lake County Technical Reference Manual and IEPA's Program recommendations. All proposed permanent stormwater treatment practices must be reviewed and approved by the Enforcement Officer.

Regulatory Program

The WDO includes numerous performance standards on Grading, Stormwater and Soil Erosion/Sediment Control that must be met for all parties undertaking construction. The Lake County Technical Reference Manual is a guidance tool that describes BMP and implementation procedures for enforcing the WDO.

Runoff Volume Reduction Hierarchy

The WDO includes performance standards which require that the site plan include a combination of structural and/or non-structural BMPs that will reduce the discharge of pollutants, the volume and velocity of storm water flow to the maximum extent practicable. The permittee should ensure that the development plan addresses these provisions during the plan review process.

Green Infrastructure

Each permittee should adopt strategies that incorporate storm water infiltration, reuse and evapotranspiration of storm water into the project to the maximum extent practicable. Site plan design and review should encourage the use of green infrastructure or low impact design techniques when possible. Types of techniques include green roofs, rain gardens, rain barrels, bioswales, permeable piping, dry wells and permeable pavement.

Long Term Operation and Maintenance

The SMPP includes two long term maintenance plans. These sample maintenance plans are included in **Appendix 5.14**.

- The first plan is the recommended plan for existing detention and stormwater management facilities, whether publicly or privately maintained. The intent of this sample plan is to provide guidance for the maintenance of facilities that do not have an approved plan. If an existing facility already has an adequate plan adequate; this document would supersede the sample plan. Attempts should be made to provide the sample maintenance plan to pre-WDO sites with stormwater management facilities.
- The second plan is provided to applicants during the permit review period. This plan should be reviewed and enhanced by the applicant to reflect the sites specific design. Receipt of the signed and recorded maintenance plan is required prior to issuance of the WDP or listed as a permit condition.

Site Inspections

The inspection program for its general facilities is discussed in detail in Chapter 3. The inspection procedure for site inspections related to construction activities is discussed in detail in Chapter 3. This section focuses on post-construction inspections of previously developed sites, streambanks / shorelines, streambeds, and detention / retention ponds.

Previously Developed Sites

The Village attempts to inspect approximately 20% of all existing properties with stormwater management facilities a year; resulting in a re-occurrence inspection interval of every 5-years.

- Previously accepted developments are inspected with respect to the approved maintenance plan. A letter indicating the maintenance activity highlights, deficiencies or additional enhancements to the plan should be provided to the responsible party.
- For older developments that do not have a maintenance plan, the Village inspects facilities with respect to the sample existing facilities maintenance plan. A letter indicating the maintenance activity highlights and deficiencies should be provided to the responsible party. The sample maintenance plan is provided with the letter and the responsible party is encouraged to implement an annual maintenance program.

- Hydrocarbon Removal systems are catalogued and annual inspections are conducted. To the extent practicable, the Village of Vernon Hills partners with business owners to facilitate the cleaning of these devices.

Shorelines



Annually, the Village attempts to inspect 20% of detention basin shorelines in the spring and/or fall pending weather conditions. Pond locations are listed on the ***Detention/Retention Pond Checklist***. Observed erosion, seeding/re-seeding or slope stabilization needs are documented. Documented deficiencies should be reported to Public Works Director who evaluates and determines appropriate remediation activities. The recommendations are forwarded to the Director of Community Development for follow up and potential enforcement on non-Village maintained ponds. Remedial actions might include notifying the property owner or including maintenance activities in the Village's work program.

New developments are required to provide a maintenance plan for constructed detention/retention facilities. The recorded maintenance plan for developments permitted through the Lake County Watershed Development Ordinance (WDO) is used, if available, for shoreline areas. Typical BMP for maintenance of these areas are similar to those for a construction site. SMC's streambank/shoreline stabilization manual is used as a starting point in choosing the appropriate BMP for remediation activities.

Streambanks and Stream Bed Sediment Accumulation

Annually, the Village attempts to inspect 20% receiving water streambanks for erosion and flowlines for sediment plumes. Inspections should be performed in the spring and/or fall pending weather conditions. Stream locations are depicted on **Figure 1**. Document observed erosion and/or sediment accumulation. Documented deficiencies should be reported to the Public Works Director who evaluates and determines appropriate remediation activities. Remedial actions might include notifying the property owner or including maintenance activities in the Village's work program. Grant opportunities are a potential solution also.

Detention / Retention Pond Sediment Accumulation

Ensure that new detention/retention ponds are over excavated during construction to account for sediment accumulation. The developer is responsible for ensuring that the design grade is established prior to Village's acceptance of the pond. Pond information, including the design permanent pool pond depths, is added to the ***Detention/Retention Pond Checklist*** upon acceptance of the pond.

Annually, the Village attempts to inspect 20% of detention basins to determine the permanent pool pond depth. Log observed depths onto the ***Detention/Retention Pond Checklist***. If the inspected pond depth is found to be 2 feet or less from the design depth (i.e. shallower than the design permanent pool depth) this information should be reported to the Public Works Director who evaluates and determines appropriate remediation activities.

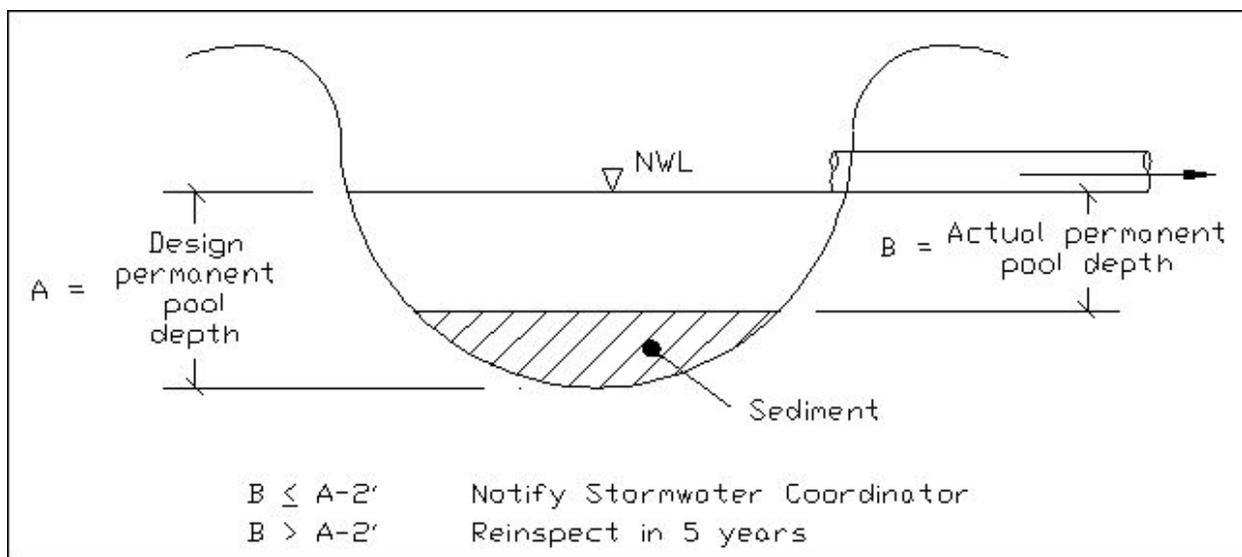


Figure 9: Pond Sediment Accumulation

Pollution Prevention and Good Housekeeping



The Village is responsible for the care and upkeep of the general facilities, municipal roads, its general facilities 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.

Inspection and Maintenance Program



The following chapters describe areas/items that require inspection and their recommended inspection frequency. It further details recommended maintenance activities and subsequent tracking procedures for each of the tasks.

Street Sweeping

Street sweeping operations are performed to reduce potential illicit discharges and to provide a clean environment. 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 Street Division experiences heavy workload. Each street is typically swept/cleaned approximately 2 to 4 times per year. Sweeper waste is collected and disposed of in the spoil waste area. The intended frequency of street sweeping operations is as follows:

- December to April – no sweeping due to winter operations/conditions
- April to May –daily (the sweeping operations maybe supplemented by a contractor)
- May to September – one to two days a week
- September to December – daily (due to falling leaves the sweeping operations are assisted by a contractor).

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, include Des Plaines River, Indian Creek, and Seavey Ditch. Minor drainageways include roadside and sideyard swales, overland flow paths, pond outlets, etc.

POND OUTLETS

The ***Detention/Retention Pond Checklist*** is used to determine inspection locations. Structures are added to the checklist after new developments are approved and accepted. Locations identified on the checklists are inspected both before a forecasted storm (0.25 inches or more) and during the storm event. Observed obstructions are cleared and debris hauled to the spoil waste area. 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.

Inspections continue until water level recedes to mid-pipe (Medium classification).

If maintenance work is required for a pipe culvert within the Village limits but in the State of Illinois right of way, the State's Maintenance Facility, 847-705-4000, is notified. Similarly, the County of Lake, 847-362-3950, is contacted for work within their right of way.

BOX CULVERTS

Box Culverts are listed on the **Outlet and Structure Checklist**. Structures are added to the checklist after new developments are approved and accepted. Locations identified on the checklists are inspected both before a forecasted storm (0.25 inches or more). Inspection procedures follow the Pond Outlet discussion above. At a minimum, debris is removed from culverts each spring.

DRIVEWAY CULVERTS

Maintenance and replacement of driveway culverts is the property owner's responsibility. A minimum 12" diameter culvert is required per Municipal Code. Permits are required for culvert replacement; a soil erosion and sediment control plan may be required as part of the permit. The Public Works Engineering Division inspects the culvert when it is set to grade and prior to backfilling. The Village infrastructure is primarily an urban cross section with curb and gutter and few culverts exist.

CATCH BASINS

Catch basin locations are identified on the **Storm Sewer Atlas**. The Public Works Department's goal is to annually clean approximately 10% of all catch basins, to a minimum sump depth of 2 feet. Spoil waste obtained from catch basin cleaning is disposed of in the spoil waste area. Locations of cleaned catch basins are tracked.

Catch basins found to have structural deficiencies are reported to the Public Works Engineering Division. Necessary remedial actions are completed by the Street Division or incorporated into a capital project. Catch basins that have been cleaned are tracked on the GIS data base 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 at is disposed of in the spoil waste area. Any waste jetted out is picked up with a clapper bar if possible.

SWALES AND OVERLAND FLOW PATHS

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

Privately Owned Drainage Swales (side/rear yard): Observed or reported erosion or sediment accumulation in privately owned swales are referred to the Community Development Department for follow-up. The Community Development Department notifies the property owner on an as needed basis for appropriate remediation required.

Landscape Maintenance



The Village maintains care and upkeep of its general facilities, municipal roads, associated maintenance yards, and other public areas. Municipal staff is responsible for Litter and Debris control described in Chapter 3.6.A.4.a below. The Village annually selects and contracts with a landscape contractor. The landscape contractor is responsible for the remainder of the landscape maintenance program under the supervision of the Public Works Department. The Village is responsible for ensuring that their landscape contractors are provided with training and/or other information to ensure that they adhere to the Village's SMPP.

LITTER AND DEBRIS

Litter and debris can accumulate on Village property and roadway right-of-ways and should be removed. Each Public Works Division is responsible for the clean up of their respective facilities. Other Village properties and right-of-ways (including municipal, Township, County and State right-of-ways within the MS4 limits) are cleaned by Public Works personnel or volunteer groups on an as-needed basis. The State Highway systems include a significant volunteer effort by the Adopt-A-Highway program participants. The Public Works Department coordinates this program.

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 storm water runoff and pollutants. The Village of Vernon Hills adopted a ban of the use of phosphorus in fertilizers unless it meets specific warranted conditions (i.e. installation of new lawns versus the maintenance of existing lawns).

Snow Removal and Ice Control



During snow removal and ice control activities, salt, de-icing chemicals, abrasives and snow melt may pollute stormwater runoff. To address these potential pollutants, the following procedures for the “winter season” (November 1 through May 1) are implemented.

ROADWAY ICE CONTROL

Use the minimal amount of salt, de-icing chemicals and additives necessary for effective control. Prior to November 1, 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.

Once the ambient temperature is below 20-degrees Fahrenheit, a Public Works Crew Leader Duty Man considers the additional use of Calcium Chloride to improve the efficiency of snow melting efforts. If deemed necessary, it is applied to the salt material prior to spreading, at a rate of 7-Gal/CY; a computer controls the application rate. The Calcium Chloride dispensing system (including pump and sprayers) is primed for operation monthly to ensure proper working conditions.

SALT DELIVERY AND STORAGE

Steps are taken to ensure that the delivery, storage and distribution of salt does not pollute stormwater runoff from the Public Works Complex. The floor of the salt storage building and adjacent receiving/unloading area are constructed of asphalt. Delivered salt is unloaded at the Public Works Facility. 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, inlet protection is provided. The salt storage facility was designed without the inclusion of a downstream inlet and the run-off swale traverses publicly owned property for many hundreds of feet to mitigate any impacts to the waterways.

SNOW PLOWING

Snow plowing activities direct snow off the pavement and onto the parkways. This reduces the amount of salt, chemical additives, abrasives or other pollutants that go directly into the storm sewer system. Snow blowing, plowing or dumping into drainageways is not allowed.

Pet Waste



The Village maintains pet waste stations at various Village properties. These stations are intended to encourage the proper disposal of pet waste, reduce illicit discharges and improve public relations. The Village of Vernon Hills Park District performs weekly inspections of the Pet Waste Stations and removes the accumulated waste. The bags are restocked as necessary.

Vehicle and Equipment Operations



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

VEHICLE FUELING

The vehicle fueling area contains two underground fuel storage tanks.
490 Greenleaf Drive, 10,000 gallon gasoline, Double wall fiberglass.
490 Greenleaf Drive, 5,000 gallon diesel, Double wall fiberglass.

These tanks are monitored by a electronic leak detection system. All underground fuel storage tanks and piping are inspected on an annual basis. Inspection reports are kept on file.

In the event of a faulty fuel nozzle, a red emergency shut off switch is located on the fuel island and on the east side of the Public Works building. Pushing the large red button will completely disable all pumps and dispensers.

Surface runoff, in the vicinity of the tank farm, is directed to a storm inlet that should be protected by a Flexstorm MyCelx skimmer pouch for advanced hydrocarbon removal.

VEHICLE MAINTENANCE

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. This chapter discusses proper handling and disposal of vehicle maintenance by-products such as waste oil, antifreeze, batteries and tires.

Waste Oil

Used motor oil, transmission fluids, gear lubes, brake fluids and other vehicle fluids (except antifreeze) are collected and stored in a 600 gallon tank. Typically, the waste oil tank is emptied and the contents removed for recycling by the Village waste hauler.

Antifreeze

Used antifreeze is stored in a 125 gallon container. A special waste hauler is contacted for collection and disposal.

Batteries

Used batteries are stored indoors at the Village Public Works building. Typically, the batteries are collected from a local vendor.

Tires

Used tires are disposed of by a local vendor. Tires are stored inside a covered area at the Public Works Complex until picked up for disposal.

Other

Village trained staff and private certified companies perform all air-conditioning related work; the Village's recovered freon is reused and the disposal of freon is thru a private licensed waste company. Cleaning fluids, and solvents are contained within an enclosed tank and maintained by a private licensed special waste company.

Animal Nuisance Control

The Public Works Department, upon receiving notification, collects "road kill" from right-of-way areas. The carcasses are disposed of in the Public Works Complex garbage dumpsters.

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.

SPOIL STOCK PILE

The spoil stock pile is located at the Public Works Complex. Asphalt and concrete maintenance by-products and excess earth excavation materials are temporarily stored in the stock pile. Attempts are made to recycle asphalt and concrete products prior to storage in the spoil stock pile. Licensed waste haulers are contracted to remove and dispose the contents of the spoil stock pile at a licensed landfill. Surface runoff from this area is largely contained by an erosion barrier without a direct discharge to an inlet.

CONTAMINATED SOIL MANAGEMENT

Collect or manage contaminated soil/sediment generated during an emergency response or identified during construction activities for treatment or disposal. Attempts are made to avoid stockpiling of the contaminated soil. If temporary stock piling is necessary, place the stockpile on an impermeable liner. Additionally, BMP (presented in the SMC's Technical Reference Manual or the Illinois Urban Manual) are used to protect the downslope of the stockpiled area for erosion downstream. Locate the construction access on the upstream side of the temporary stock pile.

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 3.6.A.7 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 into a sanitary sewer.

TRIPLE BASINS

Floor drains in the garage bay floor area of the Public Works Complex are directed to an underground Triple Basin. At a minimum, the Triple Basin is inspected annually and vacuumed out and completely cleaned once every two years. Lake County Public Works or a contractor performs the work and vacuumed out material is transported to the wastewater treatment station to air-dry on a protected impervious surface. The dried material is then transported to a landfill.

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 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 when ever 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.

Non-Hazardous Spills/Dumping

Non-hazardous spills typically consist of an illicit discharge of household material(s) into the street or stormwater management system. Upon notification or observance of a non-hazardous illicit discharge, Public Works 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 containment and cleanup activities have been performed, the on-site Public Works personnel fills out the ***Spill Response Notice*** and distributes to adjoining residences/businesses. In residential areas, the hanger should be provided to residences on both sides of the spill and on both sides of the street.
- Public Works personnel document the location, type of spill and action taken on the ***Indirect Illicit Discharge Tracking Form*** .
- The on-site Public Works personnel provide the tracking form to their supervisor. The supervisor, or his designee, takes the information from the form and transfers it to the ***Indirect Illicit Discharge Summary Form***.
- If a person is observed causing an illicit discharge, the Building Commissioner is notified and appropriate citations issued by the Police Department.

Hazardous Spills

Upon notification or observance of a hazardous illicit discharge, Public Works follows the following procedure:

- Call 911, explain the incident. The Fire Department responds;
- Public Works 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;
- Public Works documents the location, type of spill and action taken on the Indirect Illicit Discharge Tracking Form; and,
- The on-site Public Works personnel provide the tracking form to their supervisor. The supervisor, or his designee, takes the information from the form and transfers it to the ***Indirect Illicit Discharge Summary Form***.

Employee Training



The Village'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. The purpose of the Employee Stormwater Training Program is to teach appropriate employees about the following:

- Stormwater characteristics and water quality issues;
- The roles and responsibilities of the various Departments, and individuals within these Departments, regarding implementation of the SMPP to consistently achieve Permit compliance;
- Activities and practices that are, or could be sources, of stormwater pollution and non-stormwater discharges;
- On managing and maintaining green infrastructure and low impact design features; and,
- How to use the SMPP and available guidance materials to select and implement best management practices.

Training Approach

Employees are encouraged to attend relevant training sessions offered by the QLP and other entities on topics related to the goals/objectives of the SMPP. Additionally, the Village will develop employee training programs with curricula and materials tailored to specific functional groups. Refer to **Table 7**. The materials focus on stormwater 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: Employee Responsibilities

Functional Group	Area of Responsibility	Members
Planning and Design	Responsible for overseeing the development and implementation of best management practices through the project planning and design phase for construction projects.	PW- Engineering
Construction	Responsible for overseeing the implementation of best management practices relating to the construction stage of projects (private and public).	PW- Engineering
Maintenance	Responsible for development and implementation of best management practices relating to the maintenance of facilities, infrastructure and properties.	PW-Operations

Training Schedule and Frequency

The initial training program will be offered within 6 months of the acceptance of the SMPP. 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 Stormwater Coordinator and then shared with applicable employees. The Stormwater Coordinator 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 email 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.

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 Village. Land development, redevelopment and transportation improvement projects were required to comply with the provisions of the WDO prior acceptance of the SMPP. Additionally, the Village had numerous written and unwritten procedures for various tasks. This SMPP documents and organizes previously existing procedures and incorporates the objectives of the WDO to create one cohesive program addressing pre-development, construction, post-development activities and municipal operations.

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

- 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.

Performance Milestones

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

- Within 6 months following the acceptance of the SMPP, applicable employees will receive training regarding the implementation of the SMPP.
- Within 1 year following the acceptance of the SMPP, program enhancement items within Chapter 3 will be implemented, except for the IDDE program milestones discussed below. Refer to Chapter 2 for a description of tasks associated with the implementation of the SMPP.

- Within 3 years following the acceptance of the SMPP, the Des Plaines River Watershed Workgroup will have identified impairment reaches as part of their monitoring efforts. Comparative analysis of the monitoring will occur to review areas of improvement within the watershed. This analysis will identify our specific needs and locations.
- Within 5 years following the acceptance of the SMPP, the specific needs will be placed onto a Watershed Improvement List. Further comparative analysis of the monitoring data will occur. The Village of Vernon Hills will partner with the DesPlaines River Watershed Workgroup to obtain grants to assist in financing improvements. Opportunities to facilitate improvements without receiving grants will also be included in the Watershed Improvement List.

Program Monitoring and Research

The Village of Vernon Hills has a series of lakes and streams creating a greenbelt thru the community. This is an amenity that creates a buffer from development and also flood protection. The community leaders understand that this green infrastructure is a valuable asset which warrants attention. The Village has been a leader in watershed efforts within the county and has received a number of grants to enhance our lakes and streams. Erosive banks have been improved in Shadow Creek, Stone Fence Farms and our Municipal Golf Course. Projects have included features such as native plantings, remeandering, overbank ephemeral pools, rock riffles and dam removals.

The research efforts of Lake County programs has been very beneficial. Limnological reports and surveys are routinely conducted on our lakes to better understand their needs. The Lake County Health Department's Lakes Management Division conducts studies on a 5-8 year cycle. The Lakes Management Division research identified invasives in Harvey Lake and the Village is managing the spread of Eurasian Watermilfoil by contract. The Village also collaborated with them to perform bathymetric surveys which were identified as management needs in their studies. The Village created a Phosphorus Ban for Fertilizers in large part due to their leadership on this issue.

The Indian Creek Watershed Plan was prepared under the supervision of the Lake County Stormwater Management Commission which provides a wealth of watershed information. The Watershed Plan has been referenced in grant applications which assisted in obtaining funding for improvements. The document identified areas of high erosive slopes which created downstream sediment loads and the Stone Fence Farm Stream stabilization project mitigated these impacts. The plan included the Municipal Golf Course Dam and subsequently, the Village received grant funding and it was removed allowing for fish passage and less sediment deposition between the Stone Fence Farm and dam areas. The creation of the Stormwater Management Commission has provided a larger focus on watershed planning and related educational components.

A greater need for quantitative watershed data exists. The Village participated in the creation of the DesPlaines River Watershed Workgroup (DRWW). The DRWW was formed in anticipation of evolution of the USEPA and IEPA programs to require water quality monitoring and sampling. Prior to the DRWW, each municipality performed independent monitoring and sampling but routinely data was not shared across jurisdictions. In 2016 this will no longer be the case for our membership communities. The DRWW approach will provide for stream and watershed level analysis to pinpoint specific areas of concern. Solutions to address these areas will be determined and a concerted effort to obtain funding for project improvements will occur.

Future efforts may involve collecting information on the characterization of discharges from outfalls, identifying other sources of pollutants, characterizing the receiving waters, sampling construction site discharges, identifying the performance of existing and potential enhanced stormwater pollution control measures. The Village will comply with future federal and state mandates.

The Stormwater Coordinator will monitor research conducted by others regarding the effectiveness of various alternative stormwater practices, procedures and technologies. The Village will continue to seek innovative stormwater practices and technologies. Information and guidance obtained through the MAC meetings and other sources will be incorporated into this SMPP as practical. This information will be used to provide insight into how the program may need to evolve.

Program Evaluation

The primary mechanism for evaluating the program and ensuring that the field staff has adequate knowledge is supervision by responsible managers. Responsible management personnel include the Public Works Directors and Operation Crew Leaders. The Engineering Technicians also lay a key role in the program due to their supervision of projects and development activities. Support tasks include observing and evaluating design, construction and field personnel as they implement the requirements of the SMPP on both municipal and private projects, and maintenance personnel as they conduct their assigned activities. These responsibilities were outlined in detail in Chapter 2: Program Management.

The following types of questions/answers are discussed annually between the Stormwater Coordinator, Managers and field staff.

- Are proper stormwater management practices integrated into planning, designing and constructing both Village and private projects?
- Are efforts to incorporate stormwater practices into maintenance activities effective and efficient?
- Is the training program sufficient?
- Is the SMPP sufficient?
- Are the procedures for implementing the SMPP adequate?

5 Appendices

5.1 List of Acronyms

Acronym	Description
BMP	Best Management Practices
CFR	Code of Federal Regulations
CMAQ	Chicago Metropolitan Agency for Planning
CWA	Clean Water Act
CWP	Center for Water Protection
DECI	Designated Erosion Control Inspector
EO	Enforcement Officer (Lake County WDO)
EOPCC	Engineers Opinion of Probable Construction Cost
EPA	Environmental Protection Agency
GPS	Global Positioning System
HHW	Household Hazardous Wastes
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
LCDOT	Lake County Division of Transportation
LOC	Letter of Credit (surety)
MAC	Municipal Advisory Committee (Countywide)
MBAS	Methyl Blue Active Substances
MS4	Municipal Separate Storm Sewer Systems
NOI	Notice of Intent
NOT	Notice of Termination (with IEPA)
NPDES	National Pollutant Discharge Elimination System
NWL	Normal Water Level
PPE	Personal Protection Equipment
QLP	Qualify Local Program
RCRA	Resource Conservation and Recovery Act
SE/SC	Soil Erosion and Sediment Control
SMC	Lake County Stormwater Management Commission
SWALCO	Solid Waste Agency of Lake County
SMPP	Stormwater Management Program Plan
TAC	Technical Advisory Committee
TRM	Technical Reference Manual
USEPA	United States Environmental Protection Agency
WDO	Lake County Watershed Development Ordinance
WDP	Watershed Development Permit
WMB	Watershed Management Board

5.2 Stormwater Outfall Screening Equipment Checklist

STORM WATER OUTFALL SCREENING EQUIPMENT CHECKLIST	
Field Analysis	pH Testing Strips
	Chlorine Testing Strips
	Copper Test Strip
	Ammonia Test Strip
	Phenols Test Kit (Minimum of 15 Tests)
	Detergents Test Kit (Minimum of 15 Tests)
	Color Chart
	Thermometer
	Wash Bottle with Tap Water
Sampling	Extended Sampler
	250-ml and 500-ml glass sample containers with labels
	Cooler with ice or ice packs
Other	Outfall Screening Data Form (Minimum of 10)
	Outfall Sampling Report (Minimum of 10)
	Clipboard and Pens
	Resident Form Letters (Minimum of 10)
	Training Manual
	Storm Sewer Atlas
	Digital Camera
	Flashlight
	Manhole Cover Hook
	Tape Measure
	Folding Rule
	Brush Clearing Tool
	Plastic Trash Bags
	Paper Towels
Safety (PPE Equipment)	Traffic Cones/Flags/Light Sticks
	Traffic Safety Vest
	First Aid Kit
	Steel-Toe Boots
	Work Gloves
	Safety Glasses/Goggles
	Rubber Boots
	Disposable Gloves (Latex)
	ID Badge
Personal (supplied by employee if desired)	Insect Repellant
	Sunscreen

5.3 Stormwater Outfall Inspection Data Form

Section 1: Background Data

Subwatershed:	Outfall ID:	
Date:	Time (Military):	
Temperature:	Inspector(s):	
Previous 48 Hours Precipitation:	Photo's Taken (Y/N)	If yes, Photo Numbers:
Land Use in Drainage Area (Check all that apply):	<input type="checkbox"/> Open Space <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Residential <input type="checkbox"/> Commercial Other: _____ Known Industries: _____	

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
Storm Sewer (Closed Pipe)	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Clay / draintile <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: Top Width: Bottom Width:		

Section 3: Physical Indicators

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other: _____	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____	
Pipe algae/growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other: _____	
Do physical indicators suggest an illicit discharge is present (Y/N):			

Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 7 and Close Illicit Discharge Investigation
Flow Description	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial	
Sample Location		

Section 4: Physical Indicators (Flowing Outfalls Only)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Sulfide <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Other:	<input type="checkbox"/> 1-Faint	<input type="checkbox"/> 2 – Easily detected	<input type="checkbox"/> 3 – Noticeable from a distance
Color (color chart)	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> 1-Faint colors in sample bottle	<input type="checkbox"/> 2 – Clearly visible in sample bottle	<input type="checkbox"/> 3 – Clearly visible in outfall flow
Turbidity	<input type="checkbox"/>	See severity	<input type="checkbox"/> 1-Slight cloudiness	<input type="checkbox"/> 2 – Cloudy	<input type="checkbox"/> 3 – Opaque
Floatables -Does Not Include Trash!!	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Grease <input type="checkbox"/> Other:	<input type="checkbox"/> 1-Few/slight; origin not obvious	<input type="checkbox"/> 2 – Some; indications of origin	<input type="checkbox"/> 3 - Some; origin clear
Do physical indicators (flowing) suggest an illicit discharge is present (Y/N):					

Section 5: On-Site Sampling / Testing (Flowing Outfalls Only)

PARAMETER	RESULT	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)	EQUIPMENT
Temperature		NA	NA	Thermometer
pH		6 – 9		5-in-1 Test Strip
Ammonia		<3 mg/L April – Oct < 8 mg/L Nov - March		Test Strip
Free Chlorine		NA	NA	5-in-1 Test Strip
Total Chlorine		< 0.05 mg/L		5-in-1 Test Strip
Phenols		< 0.1mg/L		Test Kit
Detergents as Surfactants		> 0.25 mg/L residential > 5 mg/L non-residential		Test Kit
Copper		<0.025 mg/L		Test Strip
Alkalinity		NA	NA	5-in-1 Test Strip
Hardness		NA	NA	5-in-1 Test Strip

(Note NA values used for future tracing procedures)

Section 6: Data Collection for Lab Testing (see flow chart)

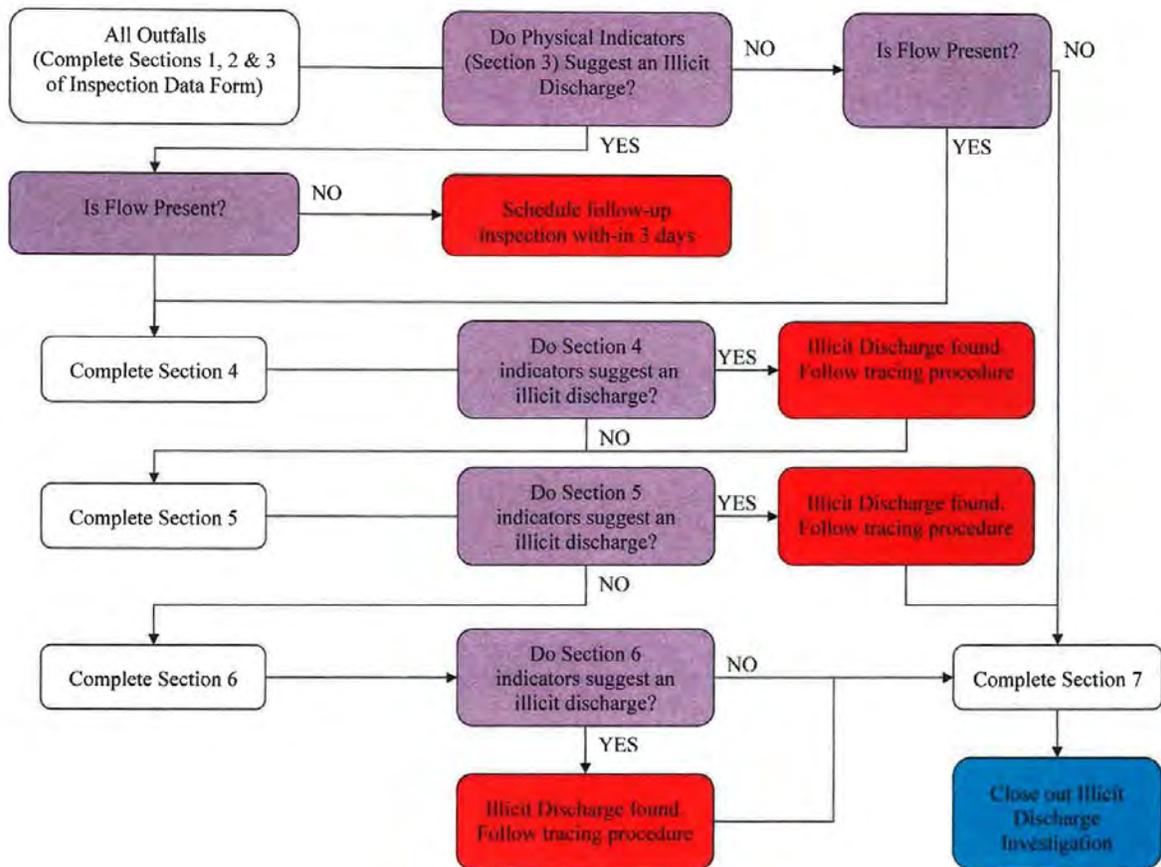
1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool

PARAMETER	RESULT (from lab)	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)
Fecal Coliform		400 per 100 mL	
Flouride		0.6 mg/l	
Potassium		Ammonium/Potassium ratio or > 20mg/l	

*note label sample with outfall number

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Figure 4: Outfall Inspection Procedure Flow Chart



Instructions for completing the
Storm Water Outfall Inspection Data Form

Strike out incorrect entries with a single line; correct values or descriptions are written above or near the struck-out entries. Do not use a new data entry form to correct an incorrect entry. At the completion of each outfall inspection, the field crews are responsible for ensuring that a ***Storm Water Outfall Inspection Data Form*** has been completely and correctly filled out and that all data and remarks are legible. **It is important to check that values for all chemical parameters have been entered.**

Section 1: Background Data

Subwatershed: The receiving water from the storm water outfall inventory to be entered here.

Outfall ID: Enter the outfall identification number from the storm water outfall inventory.

Date: To avoid confusion, dates are to be written in the following manner: DAY MONTH YEAR. For example, 10 MARCH 2013.

Time: Military time (24-hour clock) to be used (for example, 8:30 a.m. would be written as 0830; likewise, 1:30 p.m. would be written as 1330).

Temperature: A concise description of the weather conditions at the time of the screening is to be recorded (for example, Clear, 75° F).

Inspector: The name(s) of the field personnel.

Previous 48 Hours Precipitation: The total amount of precipitation during the 48 hours preceding the inspection is to be noted (for example, none-72 Hours or 0"=4 days). If the total precipitation is not known, it is appropriate to enter a qualitative assessment if the precipitation was minor. For example, *Drizzle-36 Hours* if appropriate. If the precipitation amount was significant, actual precipitation totals is obtained from a local rain gage, if available.

Photo's Taken (Yes/No): Photographs are to be taken with a camera that superimposes a date and time on the film. The date and time should correspond to the date and time recorded on the data form.

Photo Numbers: If photographs are taken, the number(s) is recorded.

Land Use: Check all that apply, noting which land use is predominate. If the industrial box is checked, any known industries are listed to facilitate potential tracing efforts.

Section 2: Outfall Description

Type of Outfall: Storm Sewer (Closed Pipe) or Open Drainage (Swale/Ditch):

First check if the outfall is either from a Closed Pipe or Open Drainage. Then complete table row to describe outfall characteristics.

Section 3: Physical Indicators

Complete table rows describing outfall characteristics (Outfall Damage, Deposits/Stains, Abnormal Vegetation, Poor pool quality, Pipe algae/growth). This section is filled out regardless of current flow conditions. No flow during the time of the inspection, does not rule out the potential of illicit discharges. Corroding or stained pipes, dead or absence of vegetation, are potential indicators of illicit discharges from direct or indirect (i.e. dumping) sources.

After inspecting the physical conditions of the outfall, the likelihood of an illicit discharge is assessed. Use this assessment in the supporting flow chart.

Flow Present (Yes/No): A *Yes* or *No* is entered here to indicate the presence or absence of dry-weather flow. If the outfall is submerged or inaccessible, "See Notes" is entered and an explanation provided in the "Notes" section.

If *No* is entered in the "Flow Present" block, then skip to Section 7.

If *Yes* is entered, then the remainder of the outfall screening data form is filled out.

Flow Description: A description of the quantity of the dry-weather flow is provided.

Sample Location: A description of the actual sampling location is to be recorded (for example, at end of outfall pipe). If the outfall is submerged or is inaccessible for sampling, an upstream sampling location may be required. A description of any upstream sampling locations are recorded here. Grab sample are collected from the middle, both vertically and horizontally, of the dry-weather flow discharge in a critically cleaned glass container. Samples can be collected by manually dipping a sample container into the flow. Rinse the sample container with the discharge water prior to collection of sample for analysis.

If no dry weather flow was observed and no non-flowing physical indicators appear present the inspection can be closed, skip to Section 7 of the form. If no dry weather flow was observed but indicators appear present the outfall is placed back on the follow-up inspection log to ensure future inspections of the outfall, skip to Section 7. If dry weather flow was observed (regardless of the presence of non-flowing physical indicators), test the outfall discharge and complete the remainder of the form, continue to Section 4.

Section 4: Physical Indicators (Flowing Outfalls Only)

Complete table rows describing outfall characteristics (Odor, Color, Turbidity, Floatables). This section is filled out for flowing outfalls only.

Odor: The presence of an odor is to be assessed by fanning the hand toward the nose over a wide-mouth container of the sample, keeping the sample about 6 to 8 inches from the face. Be careful not to be distracted by odors in the air. Provide a description of the odor, if present.

Color: The presence of color in the discharge is to be assessed by filling a clean glass sample container with a portion of the grab sample and comparing the sample with a color chart, if color is present. If a color chart is used, the number corresponding to the color matching the sample is to be entered in this blank. Color is not assessed by looking into the discharge.

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 clean, colorless distilled water, each in glass containers. Describe turbidity as;

- Clear,
- Cloudy (translucent), or
- Opaque.

Floatables: The presence of floating scum, foam, oil sheen, or other materials on the surface of the discharge are to be noted. Describe of any floatables present that are attributable to discharges from the outfall. Do not include trash originating from areas adjacent to the outfall in this observation.

After inspecting the physical conditions of the outfall discharge, the likelihood of an illicit discharge is assessed. If flowing physical indicators are present the tracing procedure are immediately implemented by one of the field crew. The second member of the field crew continues with the inspection by performing the on-site testing in Section 5.

Section 5: On-Site Sampling/Testing (Flowing Outfalls Only)

On-site tests are performed for each of the categories. Testing is done by either a test strip or test kit as applicable (refer to the equipment column). The results are compared with the Acceptable Range and within or outside of range determination noted with a Yes or No. Note that the Temperature, Alkalinity and Hardness are determined although these results do not need to be compared with an acceptable range. These values can be used to determine the source of an illicit discharge during the tracing procedure.

After completing the on-site testing of the outfall discharge, the results of the within range column are reviewed. If any parameter is outside of the acceptable range then testing can be

stopped, proceed to Section 7. If none of the parameters are outside of the acceptable range then a sample is taken for lab testing, proceed to Section 6.

Section 6: Data Collection for Lab Testing

If required, as determined by the supporting flow chart, a sample is collected for the lab. The location of the sample is noted. Additionally, the sample is labeled with the outfall ID number.

After the lab testing has been completed the results are entered onto the form. If any parameters are outside of the acceptable range then the tracing procedure is implemented. If none of the parameters are outside of the acceptable range then the investigation can be closed. Note if non flowing physical indicators were present, re-inspect the outfall as practical.

Section 7: Any Non-Illicit Discharge Concerns

Any problems or unusual features are to be entered here. If the outfall appears to be potentially impacted by inappropriate discharges, this can be recorded here. This section is to be completed even if no flow is observed.

5.4 Outfall Sampling Report

Outfall Sampling Report

Structure ID #	Date:		
Outfall ID #	Time of Sample:		
Sampled By:		AM	PM
Glass Bottle Size:	250 ml	500 ml	32 ml
Tests requested:	Flouride	Potassium	Fecal Coliform

Relinquished By:	Date:
Comments:	Time:
Received By:	Date:
Comments:	Time:
Relinquished By:	Date:
Comments:	Time:
Received By:	Date:
Comments:	Time:

5.6 Pre-Construction Meeting Form

PRE-CONSTRUCTION CONFERENCE

PROJECT: _____ CONFERENCE DATE: _____

CONTRACTOR: _____ Phone: _____

Project Manager: _____ FAX: _____

Site Superintendent: _____ Phone: _____

Cell/Pager: _____

ENGINEER: _____ Phone: _____

Project Manager: _____ FAX: _____

Field Representative: _____ Cell/Pager: _____

DECI: _____

Phone: _____ Fax: _____ Cell/Pager: _____

1. Welcome, Introductions, and Sign-in

2. Contract Dates

a. Start _____

b. Duration of Contract _____

c. Substantial Completion _____

d. Final Completion _____

3. Utilities

a. Water

b. Sewer

c. Electric (ComEd)

d. Comcast

e. Telephone (SBC)

f. Gas (Nicor/Northshore)

**Contact JULIE 1-800-892-0123

4. Permits

a. Water (IEPA)

b. Sewer (IEPA)

c. Building

d. Libertyville Watershed Development

e. LCSMC/USACE Wetlands Development

f. IEPA / NPDES (Erosion Control)

g. LCDOT/IDOT

h. Easements

5. Contractors Insurance (Certificate of Insurance) Name Village of Libertyville, and Village Consultant, as additionally insured.
6. Performance Guarantee
7. Reference Points/Surveying/Staking
 - a. Who provides: _____
8. Construction Schedule / Sequencing
 - a. Preliminary for first 30 days by _____
 - b. Sequencing
9. List of Subcontractors/Suppliers
10. Special Structures needing Shop Drawings
11. As-builts required at completion of project.
12. Operation and Maintenance of Existing Facilities
 - Utilities
 - Driveways
 - Construction entrance and silt fence etc.
13. Defective Work will be brought to contractor and general contractor attention as soon as seen or determined.
14. Traffic Control
 - a. Traffic Control Subcontractor: _____
15. Soil Erosion / Sediment Control
 - a. Floodplain/Floodway On/Adj. to Site (Y/N)
 - b. WOUS or IWLC On/Adj to Site (Y/N)
 - c. Initial SE/SC Inspection at PreCon (Y/N)
 - d. Village to receive weekly DECI Inspection Reports (Y/N)
 - f. Key Discussion Items/Areas of Focus

<input type="checkbox"/> Communication Chain	<input type="checkbox"/> Construction Entrance	<input type="checkbox"/> Detention/Sediment Basin
<input type="checkbox"/> Dewatering	<input type="checkbox"/> Ditch Checks/Silt Dikes	<input type="checkbox"/> Dust/Mud Control
<input type="checkbox"/> General Phasing	<input type="checkbox"/> Inlet Protection	<input type="checkbox"/> Inspection Log
<input type="checkbox"/> Overland / Offsite Drainage	<input type="checkbox"/> Perforated Riser	<input type="checkbox"/> Perimeter SE/SC BMPs
<input type="checkbox"/> Restrictor Plate/Structure	<input type="checkbox"/> Silt Fence (ASSHTO 288-00)	<input type="checkbox"/> Soil Stockpile Stabilization
<input type="checkbox"/> Stormwater Management System	<input type="checkbox"/> Stabilization Measures	<input type="checkbox"/> SWPPP on Site & Updated
<input type="checkbox"/> Stormwater System	<input type="checkbox"/> Vegetative Cover/Type	<input type="checkbox"/> Wetlands/Waters Protection

5.7 Soil Erosion and Sediment Control Inspection Form

Field Observation Report – Lake County

WDO Permit #	Lake Permit #	USACE Reference #	USACE Permit #	NPDES Permit #	NPDES Permit #
WDO Permit Issued To	WDO Permittee	Inspection Log Compliant	<input type="checkbox"/> Yes <input type="checkbox"/> No	SWPPP Compliant	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Weekly <input type="checkbox"/> Rain <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No	IWKC On Site/Adjacent	<input type="checkbox"/> Yes <input type="checkbox"/> No	WOUS On Site/Adjacent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain/Floodway Impact	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	IWKC Impacted	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	WOUS Impacted	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Violation Correction Time	<input type="checkbox"/> 1 day <input type="checkbox"/> 3 day <input type="checkbox"/> 7 day <input type="checkbox"/> 10 day <input type="checkbox"/> 30 day <input type="checkbox"/> _____		Violation Rating	0 - No Violation <input type="checkbox"/> Notify E.O.	
Water Sample NTU Reading	____ NTUs <input type="checkbox"/> N/A	Photos Taken	<input type="checkbox"/> Yes <input type="checkbox"/> 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 <input type="checkbox"/>	Non-Compliant <input type="checkbox"/>
Copy Report To:	Note who should receive an email copy of this report				
Concrete Washout	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Construction Entrance/Pavement	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Construction Sequencing	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Detention/Sediment Basin	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Dewatering Facility	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Ditch Checks	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Dust Control	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	ECB/TRM Installation	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Inlet Protection	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Offsite Tracking/Offsite Impacts	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Perforated Riser	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Polyacrylamide Application	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
SE/SC Installation	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	SE/SC Maintenance	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Soil Stockpile Stabilized/Protected	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Stabilization Measures	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Stormwater System (sewer, swale, etc.)	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Turbidity Curtain	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Vegetative Cover	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Wetland Buffers Protected	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Wetland/Waters Protection	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A	Other (not listed)	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A		
Observations:					

<p>Concrete Washout</p> <ul style="list-style-type: none"> • Is there an available on site concrete washout? • Is the concrete washout self-contained? • Is the concrete washout well maintained and functional? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Construction Entrance/Pavement</p> <ul style="list-style-type: none"> • Are all ingress and egress points covered by a temporary construction entrance? • Is the entrance constructed with 3" coarse aggregate? • Has an appropriate geotextile material been installed underneath the stone? • Is the entrance appropriately sized, both in width and length? • Is the entrance adequately preventing tracking of dirt, mud and sediment onto roadways? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Construction Sequencing</p> <ul style="list-style-type: none"> • Is the project in step with the approved/permitted construction sequencing? • Does the construction sequencing best utilize SE/SC performance? • Is the stormwater management system for the project installed and functional? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Detention/Sediment Basin</p> <ul style="list-style-type: none"> • Is the basin installed? • Is the basin adequately stabilized? • Is there evidence of sufficient coverage of native vegetation? • Is the emergency overflow constructed with the required materials? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Dewatering Facility</p> <ul style="list-style-type: none"> • Is dewatering directly entering a waterway or wetland? • Are dewatering activities conveying sediment laden water? • Are appropriate dewatering BMP's in place and functioning effectively? • If a sediment bag is being used, is it capturing sediment effectively? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Ditch Checks</p> <ul style="list-style-type: none"> • Are ditch checks installed at all required locations, as needed? • Are ditch checks installed correctly? • Are ditch checks being maintained/cleaned routinely? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Dust Control – sweeping, vacuuming, spraying, etc.</p> <ul style="list-style-type: none"> • Are dust control measures being used as needed? • Is dust observed moving offsite due to wind? • Are roadways being swept or swept and vacuumed when needed? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>ECB/TRM Installation</p> <ul style="list-style-type: none"> • Are all Erosion Control Blanket or Turf-Reinforcement Mats installed per plan? • Are all ECB/TRM installed with the correct staple pattern? • Are all ECB/TRM properly trenched in where necessary? • Are all ECB/TRM installed perpendicular to the slope? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>

<p>Inlet Protection – Catch-All basket, filter, silt fence, silt dike, straw bales, gravel dam, etc.</p> <ul style="list-style-type: none"> • Are all storm sewer inlets that are or will be functional during construction protected? • Is the inlet protection installed correctly to protect the entire inlet? • Is the inlet protection being maintained? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Offsite Tracking/Offsite Impacts</p> <ul style="list-style-type: none"> • Are all permitted overland flow routes constructed? • Are all permitted overland flow routes free from obstruction? • Are all permitted overland flow routes stabilized? • Are all pre-construction overland flow routes protected? • Are all pre-construction overland flow routes free from obstruction? • Are all points of offsite drainage (i.e. water leaving the site) stabilized? • Are all points of offsite drainage protected from erosion and sedimentation? • Are all offsite access points free from erosion and/or sedimentation? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Perforated Riser</p> <ul style="list-style-type: none"> • Is the perforated riser installed at the outlet? • Is the perforated riser sized correctly (one pipe size smaller than the outlet pipe)? • Is the perforated riser wrapped in hardware cloth or chicken wire, and filter fabric? • Is the perforated riser adequately mortared in? • Is there an adequate amount of stone at the base of the riser? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Polyacrylamide Application</p> <ul style="list-style-type: none"> • Are polyacrylamides (PAMs) being used per plan? • Are PAMs being appropriately contained and are flocculated sediments being captured? • Are PAMs systems being properly maintained? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>SE/SC Installation</p> <ul style="list-style-type: none"> • Are all perimeter soil erosion/sediment controls in place and maintained? • Are adjacent wetlands/waters/properties being impacted by SE/SC failures? • Are all site SE/SC controls installed correctly? • Does the silt fence meet the AASHTO 288-00 Standard? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>SE/SC Maintenance</p> <ul style="list-style-type: none"> • Is silt fence maintained and kept free of sediment buildup? • Are ditch checks maintained and cleaned? • Is the perforated riser fabric clear of sediment blinding and functional? • Is the construction entrance clean and functional? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Soil Stockpile Stabilized/Protected</p> <ul style="list-style-type: none"> • Is the soil stockpile located in an approved location (i.e. not in floodplain or wetland)? • Is the soil stockpile adequately stabilized? • Is the soil stockpile properly enclosed with silt fence? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>

<p>Stabilization Measures</p> <ul style="list-style-type: none"> • Have all disturbed areas been stabilized with temporary or permanent measures within 7 days of the end of active hydrologic disturbance? • Are stabilization measures effective? • Are there areas of disturbance that need additional stabilization measures? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Stormwater System (sewer, swale, etc.)</p> <ul style="list-style-type: none"> • Is the stormwater management system installed and functional, prior to building construction? • Are all points of concentrated discharge appropriately installed for energy dissipation? • Are all inlets and catch basins adequately protected from sediment conveyance into the system? • Is hydrocarbon removal technology in place, functional and maintained where needed? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Turbidity Curtain</p> <ul style="list-style-type: none"> • Is the turbidity curtain installed per plan, in the correct location? • Is the turbidity curtain maintained clear of debris? • Is the turbidity curtain properly and securely anchored? • Is the turbidity curtain holding/floating above the water surface? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Vegetative Cover</p> <ul style="list-style-type: none"> • Is vegetative cover adequate, based on application, species and time of year? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Wetland Buffers Protected</p> <ul style="list-style-type: none"> • Are all required wetland buffers protected? • Are all required wetland buffers free of erosion and/or sedimentation? • Are all required wetland buffers free of unpermitted disturbance? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Wetlands/Waters Protection</p> <ul style="list-style-type: none"> • Are all delineated wetlands on site protected by 4' IDOT Standard Construction Fencing? • Are all adjacent offsite wetlands protected from impact? • Are illicit discharges into wetlands or bodies of water being prevented? • Are wetland buffers protected? 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Other</p> <ul style="list-style-type: none"> • Other SE/SC concerns or issues (please explain in the text box on page one, or below) 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Explain:</p>	

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

5.8 Sample Notice of Violation Letter

Date: _____

1ST NOTICE OF VIOLATION

Applicant Name: _____

Company: _____

Address: _____

City State Zip: _____

Subject: Project Name: _____
Watershed Development Permit No. _____
1st Notice of Violation

Dear Permittee:

You are hereby notified of the following violation(s) to your Watershed Development Permit:

- Failure to notify the Village prior to construction.
- Failure to display Permit placard visible from street.
- Failure to install/maintain a non-erosive outlet from the structure to the watercourse (Art. IV, Sec. B.1.j.1.b).
Location(s) _____
- Failure to install/maintain soil erosion and sediment control features prior to the hydrologically disturbing upstream areas (Art. IV, Sec. B.1.j.1.c).
Location(s) _____
- Failure to install/maintain temporary or permanent seeding (Art. IV, Sec. B.1.j.1.d).
Location(s) _____
- Failure to install/maintain sod (Art. IV, Sec. B.1.j.1.d.).
Location(s) _____
- Failure to install/maintain erosion control blanket (Art. IV, Sec. B.1.j.1.d.).
Location(s) _____
- Failure to install/maintain silt fence, meeting AASHTO Std. Spec 288-00 (Art. IV, Sec. B.1.j.1.f.i).
Location(s) _____
- Failure to install/maintain sediment traps (Art. IV, Sec. B.1.j.1.f.ii).
Location(s) _____
- Failure to install/maintain sediment basins with perforated filtered riser pipe (Art. IV, Sec. B.1.j.1.f.iii).
Location(s) _____

- Failure to install/maintain storm inlet protection (Art. IV, Sec. B.1.j.1.g).
Location(s) _____
- Failure to route dewatering services through an effective sediment control measure (Art. IV, Sec. B.1.j.1.h).
Location(s) _____
- Failure to install/maintain stabilized construction entrance. Failure to clean right of way/pavement. (Art. IV, Sec. B.1.j.1.j).
Location(s) _____
- Failure to install/maintain runoff diversion controls (Art. IV, Sec. B.1.j.1.m).
Location(s) _____
- Failure to prevent erosion from stockpile, or the placement of stockpile in a flood-prone area, buffer, WOUS or IWLC (Art. IV, Sec. B.1.j.1.n).
Location(s) _____
- Failure to maintain dust control (Art. IV, Sec. B.2.b.8.e.).
Location(s) _____
- Failure to follow permitted construction sequencing (Art. IV, Sec. B.2.b.8.j).
Location(s) _____

You must take immediate action and cure all deficiencies identified above within five (5) working days, or the Village may issue a Stop Work Order or invoke Article VII –Penalties and Legal Actions of the WDO that provides for up to a \$500 fine for each offense each day the violation continues. Once all deficiencies have been cured, please call our office to schedule a re-inspection. If you have any questions please contact the Engineering Department at (847) 918-2100.

Sincerely,

Enforcement Officer

cc:

Summary of Violation Notification Procedure
<p>1st Notice: The Village of Libertyville will furnish a Violation Notification to applicant and/or representative via fax and Certified Mail outlining necessary corrective measures to be completed and re-inspected within 5-working days of said notification. After which time, if violations are still not corrected, a <i>Red Tag</i> will be issued for the site (i.e. all work to stop except for activities related to correcting violations).</p>
<p>2nd Notice: The Village of Libertyville issues a <i>Red-Tag</i> for the site along with a Conditional Stop Work Order (allowing only remediation activities) via fax and Certified Mail granting an additional 5-working day deadline to complete remedial work to cure said WDO violation(s). Fines continue to accrue.</p>
<p>3rd and Final Notice: If corrective measures have not been completed within the period allowed by 2nd Notice, the Village of Libertyville shall meet with the applicant/developer to discuss the Village’s additional punitive actions and the plan and schedule within which the necessary remedial measures will be completed. Fines continue to accrue and the Conditional Stop Work Order remains in effect.</p>
<p>NOTE: Building and/or Occupancy Permits and surety reduction requests will be withheld until all violations are resolved and levied fines are paid.</p>

5.9 Detention/Retention Pond Checklist

Detention/Retention Pond Checklist

Inspected by:			Date:	
			Weather Conditions:	
Number	Name/Location	Flood Height <i>(low/medium/high)</i>	Condition <i>(Excellent / Fair / Poor)</i>	Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

5.10 Roadway Culvert/Bridge Checklist

Roadway Culvert / Bridge Checklist

Inspected by:				Date:	
				Weather Conditions:	
Number	Location	Size	Flood Height <i>(low/medium/high)</i>	Condition <i>(Excellent/Fair/Poor)</i>	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					

5.11 Pool Dewatering Fact Sheet

GUIDELINES FOR DRAINING SWIMMING POOLS

Your swimming pool is filled with chlorinated water. Chlorinated water discharged directly to surface waters (wetlands, lakes, streams, and rivers), roadways or storm sewers has an adverse impact on local water quality. High concentrations of chlorine, as are present in swimming pools, are toxic to wildlife and fish. Appropriate preparations should be made prior to draining down a pool during pool winterizing. It is recommended that one of the following measures be used:

- De-chlorinate the water in the pool prior to draining. This can be done through mechanical or chemical means. These types of products are readily available at local stores.

Or,

- Drain the pool over a period of several days across your lawn using the following additional guidelines:

- 1) Allow pool water to sit at least 2 days while receiving a reasonable amount of sunlight, and without further addition of chlorine or bromine. It is recommended that the chlorine level be tested after 2 days to ensure that safe levels are met (below 0.1 mg/l).

- 2) Pool discharge should be directed across your lawn, not down your driveway or into nearby storm sewer inlets. Our storm sewer system leads directly to wetlands, streams, lakes or rivers.

These recommendations are based on guidance from the Illinois Environmental Protection Agency. Visit www.epa.state.il.us/water for additional information.

You may also contact the Village Public Works Department at 847-918-2100.

Please do your part to help promote cleaner wetlands, streams, lakes and rivers.

Thank you.

5.12 Spill Response Notice

Stormwater Pollution Found in Your Area!

This is not a citation.

This is to inform you that our staff found the following pollutants in the storm sewer system in your area. This storm sewer system leads directly to

- Motor oil
- Oil filters
- Antifreeze/
transmission fluid
- Paint
- Solvent/degreaser
- Cooking grease
- Detergent
- Home improvement waste (concrete,
mortar)
- Pet waste
- Yard waste (leaves, grass, mulch)
- Excessive dirt and
gravel
- Trash
- Construction debris
- Pesticides and
fertilizers
- Other



**For more information or to report
an illegal discharge of
pollutants, please call:**

Village of Libertyville
Public Works Department
847-918-2100



www.epa.gov/npdes/stormwater

EPA 833-F-03-002
April 2003

Stormwater runoff is precipitation from rain or snowmelt that flows over the ground. As it flows, it can pick up debris, chemicals, dirt, and other pollutants and deposit them into a storm sewer system or waterbody.

Anything that enters a storm sewer system is discharged *untreated* into the waterbodies we use for swimming, fishing, and providing drinking water.

**Remember:
Only Rain Down the Drain**

To keep the stormwater leaving your home or workplace clean, follow these simple guidelines:

- ◆ Use pesticides and fertilizers sparingly.
- ◆ Repair auto leaks.
- ◆ Dispose of household hazardous waste, used auto fluids (antifreeze, oil, etc.), and batteries at designated collection or recycling locations.
- ◆ Clean up after your pet.
- ◆ Use a commercial car wash or wash your car on a lawn or other unpaved surface.
- ◆ Sweep up yard debris rather than hosing down areas. Compost or recycle yard waste when possible.
- ◆ Clean paint brushes in a sink, not outdoors. Properly dispose of excess paints through a household hazardous waste collection program.
- ◆ Sweep up and properly dispose of construction debris like concrete and mortar.



5.13 Indirect Illicit Discharge Tracking and Summary Forms

Illicit Discharge Hotline Incident Tracking Sheet				
Incident ID:				
Responder Information				
Call taken by:			Call date:	
Call time:			Precipitation (inches) in past 24-48 hrs:	
Reporter Information				
Incident time:			Incident date:	
Caller contact information (<i>optional</i>):				
Incident Location (<i>complete one or more below</i>)				
Latitude and longitude:				
Stream address or outfall #:				
Closest street address:				
Nearby landmark:				
Primary Location Description		Secondary Location Description:		
<input type="checkbox"/> Stream corridor (<i>In or adjacent to stream</i>)		<input type="checkbox"/> Outfall	<input type="checkbox"/> In-stream flow	<input type="checkbox"/> Along banks
<input type="checkbox"/> Upland area (<i>Land not adjacent to stream</i>)		<input type="checkbox"/> Near storm drain	<input type="checkbox"/> Near other water source (storm water pond, wetland, etc.):	
Narrative description of location:				
Upland Problem Indicator Description				
<input type="checkbox"/> Dumping		<input type="checkbox"/> Oil/solvents/chemicals	<input type="checkbox"/> Sewage	
<input type="checkbox"/> Wash water, suds, etc.		<input type="checkbox"/> Other: _____		
Stream Corridor Problem Indicator Description				
Odor	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Rancid/Sour	<input type="checkbox"/> Petroleum (gas)
	<input type="checkbox"/> Sulfide (rotten eggs); natural gas	<input type="checkbox"/> Other: Describe in "Narrative" section		
Appearance	<input type="checkbox"/> "Normal"	<input type="checkbox"/> Oil sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Suds
	<input type="checkbox"/> Other: Describe in "Narrative" section			
Floatables	<input type="checkbox"/> None	<input type="checkbox"/> Sewage (toilet paper, etc)	<input type="checkbox"/> Algae	<input type="checkbox"/> Dead fish
	<input type="checkbox"/> Other: Describe in "Narrative" section			
Narrative description of problem indicators:				
Suspected Violator (name, personal or vehicle description, license plate #, etc.):				

Investigation Notes	
Initial investigation date:	Investigators:
<input type="checkbox"/> No investigation made	Reason:
<input type="checkbox"/> Referred to different department/agency:	Department/Agency:
<input type="checkbox"/> Investigated: No action necessary	
<input type="checkbox"/> Investigated: Requires action	Description of actions:
Hours between call and investigation:	Hours to close incident:
Date case closed:	
Notes:	

5.14 Sample Maintenance Plans

Subject: INSERT DEVELOPMENT NAME HERE

SUCH PROPERTY BEING THE REAL PROPERTY NOW DULY PLATTED AS INSERT DEVELOPMENT NAME HERE, AS SUCH PLAT IS NOW RECORDED AS DOCUMENT NO. INSERT DOCUMENT NUMBER, IN THE OFFICE OF THE RECORDER OF DEEDS OF THE COUNTY OF LAKE, STATE OF ILLINOIS, HEREBY MAKES THE FOLLOWING DECLARATIONS OF MAINTENANCE RESPONSIBILITIES.

Responsibilities

Adequate provisions for maintenance of the stormwater system are an essential aspect of long-term drainage performance. Responsibility for the overall maintenance shall rest with the insert responsible party name here.

Purpose and Objective:

Detention and water quality treatment facilities, storm sewers, swales and native vegetation/buffer areas define a development's stormwater management system. When land is altered to build homes and other developments, the natural system of trees and plants is replaced with impervious surfaces like sidewalks, streets, decks, roofs, driveways, or lawns over highly compacted soils. As a result more rain water / storm water flows off the land at a faster rate and less rain water is absorbed into the soil. This can lead to streambank erosion, downstream flooding and increased concentrations of pollutants. The storm water management system was designed to help slow the rate of runoff from the development and improve the quality of the storm water leaving the site.

Interpretation as to Requirements Under This Maintenance Plan:

The requirement for this Maintenance Plan is generated by the Lake County Watershed Development Ordinance. Therefore, the interpretation of the maintenance requirements set forth in this Maintenance Plan shall be interpreted on the basis of the intent and requirements of said Ordinance.

Inspection Frequency:

Inspection experience will determine the required cleaning frequencies for the components of the stormwater management system. At a minimum, the attached checklist items should be inspected annually. Detention ponds (including the outlet control structure and restrictors) should be inspected on a monthly basis during wet weather conditions from March to November.

Maintenance Considerations:

Whenever possible, maintenance activities should be performed during the inspection. These activities should be supplemented by repair / replacement as required. A Registered Professional Engineer (PE) shall be hired for design resolution of specific items as indicated on the checklist below.

Cost Considerations:

Frequent maintenance program work execution will lead to less frequent and less costly long-term maintenance and repair. The attached checklist items may need to be amended based on experience recorded over the initial period of occupancy of the subdivision.

Record Keeping:

Separate and distinct records shall be maintained by the responsible party for all tasks performed associated with this plan. The records shall include the dates of maintenance visits, who performed the inspection, and a description of the work performed.

_____, the owner's agent, has caused these presents to be signed and acknowledged, this _____ day of _____, 2_____.

By: _____

Post-Construction Stormwater Management System Inspection Checklist

The following checklist describes the suggested routine inspection items and recommended measures to be taken to ensure that the Stormwater Management System functions as designed. When hiring a PE is the recommended measure, the PE shall inspect, evaluate and recommend corrective actions. The General section outlines items that should be taken into consideration during inspection and maintenance activities. While performing an overall inspection of your system, please check for the following items.

- Litter and debris shall be controlled.
- Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations.
- Riprap areas shall be repaired with the addition of new riprap, as necessary, of adequate size and shape.
- Roads and parking lots shall be swept or vacuumed on a periodic basis.
- Access path to storm water management facilities should be free from obstructions (woodpiles, sheds, vegetation).
- Fences, gates and posts shall be maintained.
- Signs shall be maintained.

Dams and berms

- ___ Settlement. If settlement observed, hire a PE.
- ___ Breaks or failures. If failure observed, notify the Village immediately and hire a PE.
- ___ Erosion. Repair as needed.
- ___ Signs of leakage, seepage or wet spots. If observed, hire a PE.
- ___ Unwanted growth or vegetation. Remove as needed.

Shorelines

- ___ Erosion or rip-rap failures. Repair as needed
- ___ Undermining. Stabilize and repair as needed.

Outlet and inlet structure

- ___ Obstructions blocking outlet pipe, restrictor, channel or spillway. Remove obstructions immediately.
- ___ Separation of joints. Repair as needed.
- ___ Cracks, breaks, or deterioration of concrete. Repair as needed
- ___ Scour and erosion at outlet. If observed, repair (consider additional or alternative stabilization methods).
- ___ Condition of trash racks. Remove any collected debris.
- ___ Outlet channel conditions downstream. Stabilize soil or remove obstructions as needed.

Storage Volume

- ___ Facilities shall be inspected to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed. If a detention facility includes specific locations designed to accumulate sediment these locations should be dredged every 5-yrs or when 50% of the volume has been lost.

- _____ Wet ponds lose 0.5 - 1.0% of their volume annually. Dredging is required when accumulated volume loss reaches 15%, or approximately every 15-20 years.

Storm Sewers

- _____ System is free draining into collection channels or catch basins. If concerned, clean or repair.
- _____ Catch basins. Remove sediment when more than 50% of basin sump is filled.
- _____ Siltation in Culvert. Culverts shall be checked for siltation deposit, clean out as necessary.

Bridges

- _____ Any scouring around wing walls. Stabilize and repair as needed. If concerned, hire a PE.
- _____ Any undermining of footings. Stabilize and repair as needed. If concerned, hire a PE.

- _____ All ditches or pipes connecting ponds in series should be checked for debris that may block flow.
- _____ Repair and replace permanent check-dams as necessary.
- _____ Verify systems (both drainage ditches and side yard swales) are maintaining originally constructed design slope and cross-sectional area. If fill or sediment contributes to elevation changes in swale, re-grading and re-shaping shall be performed. Licensed surveyors shall be hired to lay-out and check grades. No landscaping, earthen fill, gardens, or other obstructions (including sheds and other structures) shall be allowed in the swales that would impede design drainage flow patterns.

Vegetated Areas

- _____ Need for planting, reseeding or sodding of native areas. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established.
- _____ Need for planting, reseeding or sodding of turf areas. Supplement alternative native vegetation if a significant portion has not established (75% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established.
- _____ Invasive vegetation (refer to the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois, or hire an environmental or landscape specialist). Remove as necessary.

Wetland Buffers

- _____ Inspect for evidence of erosion or concentrated flows through or around the buffer. All eroded areas should be repaired, seeded and mulched. A shallow stone trench should be installed as a level spreader to distribute flows evenly in any area showing concentrated flows.
- _____ All existing undergrowth, forest floor duff layer and leaf litter must remain undisturbed except in designated paths or permitted encroachment areas.
- _____ No tree cutting is allowed except for normal maintenance of dead, diseased and damaged trees or; the culling of invasive, noxious or non-native species that are to be replaced by more desirable and native vegetation.
- _____ A buffer must maintain a dense, complete and vigorous cover of "non-lawn" vegetation which should not be mowed no more than once a year. Vegetation may include grass and other herbaceous species as well as shrubs and trees.
- _____ Use or maintenance activities within the buffer shall be conducted so as to prevent damage to vegetation and exposure of soil.

STORMWATER MANAGEMENT SYSTEM ANNUAL MAINTENANCE PLAN FOR EXISTING FACILITIES

Purpose and Objective:

Detention and water quality treatment facilities, storm sewers, swales and native vegetation/buffer areas define a development's stormwater management system. When land is altered to build homes and other developments, the natural system of trees and plants is replaced with impervious surfaces like sidewalks, streets, decks, roofs, driveways, or lawns over highly compacted soils. As a result more rain water / storm water flows off the land at a faster rate and less rain water is absorbed into the soil. This can lead to streambank erosion, downstream flooding and increased concentrations of pollutants. The existing storm water management system was designed to help slow the rate of runoff from the development and maintain the quality of the storm water leaving the site.

Inspection Frequency:

Inspection experience will determine the required cleaning frequencies for the components of the stormwater management system. At a minimum, the attached checklist items should be inspected annually. Detention ponds (including the outlet control structure and restrictors) should be inspected on a monthly basis during wet weather conditions from March to November.

Maintenance Considerations:

Whenever possible, maintenance activities should be performed during the inspection. These activities should be supplemented by repair / replacement as required. A Registered Professional Engineer (PE) shall be hired for design resolution of specific items as indicated on the checklist below.

Cost Considerations:

Frequent maintenance program work execution will lead to less frequent and less costly long-term maintenance and repair. The attached checklist items may need to be amended based on inspection experience.

Record Keeping:

Separate and distinct records should be maintained by the responsible party for all tasks performed associated with this plan. The records shall include the dates of maintenance visits, who performed the inspection, and a description of the work performed.

PREAMBLE
to
NOTICE OF INTENT FOR NEW OR RENEWAL OF GENERAL PERMIT FOR DISCHARGES
FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS - MS4S
describing
LAKE COUNTY'S COUNTYWIDE APPROACH
TO STORMWATER MANAGEMENT
and
THE LAKE COUNTY STORMWATER MANAGEMENT COMMISSION'S ROLE
AS A QUALIFYING LOCAL PROGRAM

The Lake County Stormwater Management Commission (SMC) was established by the Lake County Board in 1991. It succeeded the Lake County Stormwater Management Planning Committee, which was established in 1988 following the passage of enabling legislation by the Illinois General Assembly (55 ILCS 5/5-1062) in 1987. SMC's mission is to provide desired community services toward the primary goals of flood damage reduction and surface water quality improvement. The specific objectives that SMC is working to meet in order to achieve its primary goals of flood damage reduction and surface water quality improvement include: mitigate existing flood damages and prevent the occurrence of new damages in the future; repair, restore, maintain, and preserve natural and constructed drainage features and facilities in the county; improve surface water quality; promote awareness and understanding of stormwater management issues; and, establish, maintain, and distribute stormwater management data and information.

In working toward meeting these objectives, SMC follows a set of stormwater management policies that were created to define its roles and responsibilities for stormwater management in Lake County. These policies include: work to coordinate actions with municipalities and local county agencies to ensure efficient implementation of stormwater management activities; work interactively with partners in stormwater management across the county; provide direct technical services to local governments, agencies, and other groups to most effectively address regional, watershed, and interjurisdictional problems; provide public information, education, and training opportunities regarding stormwater management and raise awareness and capabilities throughout the county; and, facilitate local community input into local, federal, and state sponsored stormwater management activities across the county. The implementation of these policies has created a comprehensive, countywide approach to stormwater management in Lake County.

Consistent with this comprehensive, countywide approach to stormwater management, SMC serves as a Qualifying Local Program (QLP) for Municipal Separate Storm Sewer Systems (MS4s) in Lake County. As a QLP, SMC has been working since the early 2000's, when the Illinois Environmental Protection Agency (IEPA) began the process of expanding its NPDES Stormwater Program to include small MS4s, to assist Lake County MS4s in developing and implementing efficient and effective stormwater management programs.

In 2002, SMC proactively formed the Municipal Advisory Committee (MAC) to provide a forum for representatives of local MS4s, which include municipalities, townships, and drainage districts, to discuss, among other topics, the implementation of IEPA's NPDES Stormwater Program. At that time, as a result of conversations held at MAC meetings, informational workshops, and roundtable discussions, it was agreed that each Lake County MS4 would be responsible for obtaining coverage under IEPA's General NPDES Permit No. ILR40, through the submittal of a "Notice of Intent" to be covered under the permit,

and for developing its own local stormwater management program, but that each MS4 could and should take credit for the stormwater management activities conducted by SMC.

Although SMC is not itself an MS4, as it does not own or operate a separate storm sewer system, it does perform activities related to each of the six minimum control measures (MCMs) described in IEPA's General NPDES Permit No. ILR40. These activities include:

- 1. Public Education and Outreach:** SMC distributes throughout Lake County a variety of informational materials related to stormwater management via its "take away" rack and website; provides, upon request, informational materials directly to Lake County MS4s for local distribution; provides educational presentations related to IEPA's NPDES Stormwater Program at MAC meetings and, upon request, to local MS4s; includes announcements related to IEPA's NPDES Stormwater Program on its website, in its newsletter, and in its annual report; with the assistance of the Lake County Division of Transportation, posts watershed identification signage throughout the county; sponsors or co-sponsors numerous workshops and events on a variety of stormwater management-related topics; develops and compiles, upon request, stormwater materials for inclusion in stormwater education kits; provides, upon request, information on, materials for, and training on storm drain stenciling; and, maintains a webpage dedicated to IEPA's Stormwater Program with resource materials such as model ordinances, case studies, and web links.
- 2. Public Participation/Involvement:** SMC conducts a number of public meetings each year, including MAC meetings and watershed committee meetings, where IEPA's NPDES Stormwater Program and its stormwater management activities are discussed, providing public notice of such meetings on its website and through direct mailings and e-mailings.
- 3. Illicit Discharge Detection and Elimination:** SMC provides model and example illicit discharge ordinances that prohibit all non-stormwater discharges to the storm sewer system; continues to administer and enforce the Lake County Watershed Development Ordinance (WDO), which includes provisions that prohibit illicit discharges to the storm sewer system during construction on development sites; and, sponsors or co-sponsors workshops on Illicit Discharge Detection and Elimination or other topics related to IEPA's NPDES Stormwater Program.
- 4. Construction Site Runoff Control:** SMC continues to administer and enforce the Lake County Watershed Development Ordinance (WDO), which establishes the minimum stormwater management requirements for development in Lake County, including requirements for construction site runoff control; administers the Designated Erosion Control Inspector (DECI) program, which was designed to help ensure that the construction site runoff control requirements of the Lake County WDO are met; provides training for those involved in the administration and enforcement of the Lake County WDO to help ensure that the construction site runoff control requirements of the Lake County WDO are met; follows established procedures for the receipt and consideration of construction site runoff control-related information submitted by the public; and, conducts or coordinates inspections of development sites to help ensure that the construction site runoff control requirements of the Lake County WDO are met.
- 5. Post-Construction Runoff Control:** SMC continues to administer and enforce the Lake County Watershed Development Ordinance, which establishes the minimum stormwater management requirements for development in Lake County, including requirements for post-construction runoff control; provides training for those involved in the administration and enforcement of the Lake County WDO to help ensure that the post-construction runoff control requirements of the Lake County WDO are met; conducts or coordinates inspections of development sites to help

Notice of Intent for New or Renewal of General Permit for Discharges from Small MS4s
Preamble

ensure that the post construction site runoff control requirements of the Lake County WDO are met; and, through its Watershed Management Board (WMB), provides partial funding for post-construction runoff control projects, including flood damage reduction and surface water quality improvement projects.

6. **Pollution Prevention/Good Housekeeping:** SMC maintains a list of known employee training resources and opportunities; makes available to Lake County MS4s a software-based employee training program; and, sponsors or co-sponsors training workshops related to pollution prevention/good housekeeping or other topics related to IEPA's NPDES Stormwater Program.

In addition to the stormwater management activities described above, SMC also provides, upon request, no-cost "consultant-level" technical assistance to Lake County MS4s in developing and implementing their stormwater management programs and provides them with a variety of resources to assist them in meeting the requirements of IEPA's General NPDES Permit No. ILR40. To date, these resources have included:

- Notice of Intent templates;
- Stormwater Management Program Plan templates;
- Annual Report templates;
- Annual "State of Lake County's Waters" reports;
- An Illicit Discharge Detection and Elimination guidance manual;
- Model and example illicit discharge ordinances that prohibit all non-stormwater discharges, including illegal dumping, to the storm sewer system;
- GIS and mapping data, including a countywide receiving waters map; and
- The Lake County Watershed Development Ordinance, which establishes the minimum stormwater management requirements for development in Lake County, including requirements for construction site and post-construction runoff control.

As IEPA's Stormwater Program continues to evolve, SMC is committed to providing continued and ongoing support to Lake County MS4s as they continue to develop and implement their stormwater management programs.



Illinois Environmental Protection Agency

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

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

Part I. General Information

- 1. MS 4 Operator Name: Village of Vernon Hills
- 2. MS4 Mailing Address: 290 Evergreen Drive
City: Vernon Hills State: IL
- 3. Operator Type: Village Other: _____
- 4. Operator Status: Local Other: _____
- 5. Name(s) of governmental entity(ies) in which MS4 is located:

State of Illinois

County of Lake

6. Area of land that drains to your MS4 in square miles: 7.9

7. Latitude and Longitude at approximate geographical center of MS4 for which you are requesting authorization to discharge:

Latitude:				Longitude:			
<u>42</u>	<u>13</u>	<u>47</u>		<u>87</u>	<u>57</u>	<u>45</u>	
<u>Degrees</u>	<u>Minutes:</u>	<u>Seconds:</u>		<u>Degrees:</u>	<u>Minutes:</u>	<u>Seconds:</u>	

8. Name(s) of known receiving waters

Des Plaines River

Seavey Drainage Ditch

Indian Creek

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

Name: Michael Allison Title: Village Manager Phone: 847-918-3540Area of Responsibility: Certifying AuthorityName: David H Brown Title: Director of Public Works Phone: 847-367-3726Area of Responsibility: WDO Enforcement Officer / Maintenance and Operations

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

A. Public Education and Outreach

Measurable Goals (include shared responsibilities)

The Village of Vernon Hills] intends to share responsibility for the implementation of its stormwater management program with a Qualifying Local Program (QLP), as outlined below.

Please note that the current version of the Illinois Environmental Protection Agency's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that the Illinois Environmental Protection Agency (IEPA) will make to the new version of the Permit, both the QLP and the MS4 remain committed to performing activities related to each of the six MCMs described in the current version of the Permit.

Qualifying Local Program:

The Lake County Stormwater Management Commission (SMC) serves as a QLP for Lake County MS4s. As a QLP, SMC performs activities related to each of the six MCMs described in the Permit, including activities related to Public Education and Outreach. Following the expiration of the current version of the Permit on March 31, 2014, SMC plans to continue to perform a variety of activities related to the Public Education and Outreach MCM, as described in Attachment A.

MS4 Stormwater Management Program:

As part of its stormwater management program, the [insert MS4 name] conducts a number of Public Education and Outreach activities that educate and inform the public about the impacts of stormwater runoff on receiving water bodies and the steps that the public can take to reduce those impacts. In coordination and collaboration with the QLP, the [insert MS4 name] utilizes a variety of best management practices (BMPs) to educate and inform the public about these issues, including: distributing paper material containing information about stormwater management; sponsoring and/or attending community outreach events, including meetings, to provide information about stormwater management; publicizing household hazardous waste collection events sponsored by the Solid Waste Agency of Lake County (SWALCO) to encourage the public to participate in such events; upon request, providing classroom education on stormwater management to local students and teachers; upon request, providing training and information to local students and teachers interested in conducting storm drain stenciling; and, providing, on its website, information about stormwater management and its stormwater management program. Following the expiration of the current version of the Permit on March 31, 2014, the [insert MS4 name] plans to continue to perform a variety of activities related to the Public Education and Outreach MCM, as described in Attachment B.

QLP MS4

- ✓ A.1 Distributed Paper Material
- ✓ A.2 Speaking Engagement
- ✓ A.3 Public Service Announcement
- ✓ A.4 Community Event
- ✓ A.5 Classroom Education Material
- ✓ A.6 Other Public Education

B.Public Participation/Involvement

Measurable Goals (include shared responsibilities)

The Village of Vernon Hills intends to share responsibility for the implementation of its stormwater management program with a Qualifying Local Program (QLP), as outlined below.

Please note that the current version of the Illinois Environmental Protection Agency's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that the Illinois Environmental Protection Agency (IEPA) will make to the new version of the Permit, both the QLP and the MS4 remain committed to performing activities related to each of the six MCMs described in the current version of the Permit.

Qualifying Local Program:

The Lake County Stormwater Management Commission (SMC) serves as a QLP for Lake County MS4s. As a QLP, SMC performs activities related to each of the six MCMs described in the Permit, including activities related to Public Participation/Involvement. Following the expiration of the current version of the Permit on March 31, 2014, SMC plans to continue to perform a variety of activities related to the Public Participation/Involvement MCM, as described in Attachment A.

MS4 Stormwater Management Program:

As part of its stormwater management program, the [insert MS4 name] conducts a number of Public Participation/Involvement activities that involve and engage the public in the implementation of its stormwater management program. In coordination and collaboration with the QLP, the [insert MS4 name] utilizes a variety of best management practices (BMPs) to involve and engage the public in these efforts, including: attending and encouraging public participation in stakeholder meetings; presenting information about stormwater management and its stormwater management program at public meetings; attending and participating in Municipal Advisory Committee (MAC) meetings to discuss and coordinate on the implementation of IEPA's NPDES Stormwater Program; and, providing a phone number and maintaining a process for receiving and processing information about stormwater-related problems and concerns from the public. Following the expiration of the current version of the Permit on March 31, 2014, the Village of Vernon Hills plans to continue to perform a variety of activities related to the Public Participation/Involvement MCM, as described in Attachment B.

QLP MS4

- B.2 Educational Volunteer
- ✓ B.3 Stakeholder Meeting
- ✓ B.4 Public Hearing
- B.5 Volunteer Monitoring
- ✓ B.6. Program Involvement
- B.7 Other Public Involvement

C. Illicit Discharge Detection and Elimination

Measurable Goals (include shared responsibilities)

The Village of Vernon Hills intends to share responsibility for the implementation of its stormwater management program with a Qualifying Local Program (QLP), as outlined below. Note, however, that the primary responsibility for the implementation of the Illicit Discharge Detection and Elimination MCM lies with the Village of Vernon Hills.

Please note that the current version of the Illinois Environmental Protection Agency's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that the Illinois Environmental Protection Agency (IEPA) will make to the new version of the Permit, both the QLP and the MS4 remain committed to performing activities related to each of the six MCMs described in the current version of the Permit.

Qualifying Local Program:

The Lake County Stormwater Management Commission (SMC) serves as a QLP for Lake County MS4s. As a QLP, SMC performs activities related to each of the six MCMs described in the Permit, including activities related to Illicit Discharge Detection and Elimination. Following the expiration of the current version of the Permit on March 31, 2014, SMC plans to continue to perform a variety of activities related to the Illicit Discharge Detection and Elimination MCM, as described in Attachment A.

MS4 Stormwater Management Program:

As part of its stormwater management program, the [insert MS4 name] conducts a number of activities related to Illicit Discharge Detection and Elimination. In accordance with the current version of the Permit, the [insert MS4 name]'s Illicit Discharge Detection and Elimination program includes:

- A storm sewer system map showing the locations of all outfalls and the names and locations of all waters that receive discharges from those outfalls;
- An ordinance or other regulatory mechanism that prohibits all non-stormwater discharges into the storm sewer system and provides the authority for appropriate enforcement procedures and actions;
- A plan to detect and address all non-stormwater discharges, including illegal dumping, into the storm sewer system;
- A program to educate public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and,
- Periodic (annual is recommended) inspection of storm sewer outfalls for detection of non-stormwater discharges and illegal dumping.

Following the expiration of the current version of the Permit on March 31, 2014, the Village of Vernon Hills plans to continue to perform a variety of activities related to the Illicit Discharge Detection and Elimination MCM, as described in Attachment B.

QLP MS4

- C.1 Sewer Map Preparation
- ✓ C.2 Regulatory Control Program
- C.3 Detection/Elimination Prioritization Plan
- C.4 Illicit Discharge Tracing Procedures
- C.5 Illicit Source Removal Procedures
- C.6 Program Evaluation and Assessment
- C.7 Visual Dry Weather Screening
- C.8 Pollutant Field Testing
- C.9 Public Notification
- ✓ C.10 Other Illicit Discharge Controls

D. Construction Site Runoff Control

Measurable Goals (include shared responsibilities)

Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County. The WDO, which is administered and enforced within the Village of Vernon Hills by the Village of Vernon Hills, establishes standards for Construction Site Runoff Control.

Although the Village of Vernon Hills intends to share responsibility for the implementation of its stormwater management program with a Qualifying Local Program (QLP), as outlined below, the primary responsibility for the implementation of the Construction Site Runoff Control MCM lies with the Village of Vernon Hills, as the Village of Vernon Hills is currently a Certified Community, as defined by the WDO.

Please note that the current version of the Illinois Environmental Protection Agency's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that the Illinois Environmental Protection Agency (IEPA) will make to the new version of the Permit, both the QLP and the MS4 remain committed to performing activities related to each of the six MCMs described in the current version of the Permit.

Qualifying Local Program:

The Lake County Stormwater Management Commission (SMC) serves as a QLP for Lake County MS4s. As a QLP, SMC performs activities related to each of the six MCMs described in the current version of the Permit, including activities related to Construction Site Runoff Control. Following the expiration of the current version of the Permit on March 31, 2014, SMC plans to continue to perform a variety of activities related to the Construction Site Runoff Control MCM, as described in Attachment A.

MS4 Stormwater Management Program:

In accordance with the current version of the Permit, the Village of Vernon Hills has developed and implemented a Construction Site Runoff Control program to reduce the amount of pollution contained in construction stormwater runoff that enters the Village of Vernon Hills storm sewer system from development sites. The Village of Vernon Hills has adopted the Lake County WDO and is currently certified by SMC to administer and enforce the provisions of the WDO. The Village of Vernon Hills designated Enforcement Officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO within the Village of Vernon Hills. Following the expiration of the current version of the Permit on March 31, 2014, the Village of Vernon Hills] plans to continue to perform a variety of activities related to the Construction Site Runoff Control MCM, as described in Attachment B.

QLP MS4

- ✓ D.1 Regulatory Control Program
- ✓ D.2 Erosion and Sediment Control BMPs
- ✓ D.3 Other Waste Control Program
- ✓ D.4 Site Plan Review Procedures
- ✓ D.5 Public Information Handling Procedures
- ✓ D.6 Site Inspection/Enforcement Procedures
- D.7 Other Construction Site Runoff Controls

E. Post-Construction Runoff Control

Measurable Goals (include shared responsibilities)

As described above, Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County. The WDO, which is administered and enforced within the Village of Vernon Hills by the Village of Vernon Hills, establishes standards for Post-Construction Runoff Control.

Although the Village of Vernon Hills intends to share responsibility for the implementation of its stormwater management program with a Qualifying Local Program (QLP), as outlined below, the primary responsibility for the implementation of the Post-Construction Runoff Control MCM lies with the MS4.

Please note that the current version of the Illinois Environmental Protection Agency's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that the Illinois Environmental Protection Agency (IEPA) will make to the new version of the Permit, both the QLP and the MS4 remain committed to performing activities related to each of the six MCMs described in the current version of the Permit.

Qualifying Local Program:

The Lake County Stormwater Management Commission (SMC) serves as a QLP for Lake County MS4s. As a QLP, SMC performs activities related to each of the six MCMs described in the current version of the Permit, including activities related to Post-Construction Runoff Control. Following the expiration of the current version of the Permit on March 31, 2014, SMC plans to continue to perform a variety of activities related to the Post-Construction Runoff Control MCM, as described in Attachment A.

MS4 Stormwater Management Program:

In accordance with the current version of the Permit, the [insert MS4 name] has developed and implemented a Post-Construction Runoff Control program to reduce the amount of pollution contained in post-construction stormwater runoff that enters the [insert MS4 name]'s storm sewer system from development sites. [FOR CERTIFIED COMMUNITIES: The [insert MS4 name] has adopted the Lake County WDO and is currently certified by SMC to administer and enforce the provisions of the WDO. The Village of Vernon Hills designated Enforcement Officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO within the [Village of Vernon Hills]. Following the expiration of the current version of the Permit on March 31, 2014, the Village of Vernon Hills plans to continue to perform a variety of activities related to the Post-Construction Runoff Control MCM, as described in Attachment B.

QLP MS4

- E.1 Community Control Strategy
- ✓ E.2 Regulatory Control Program
- ✓ E.3 Long Term O & M Procedures
- ✓ E.4 Pre-Construction Review of BMP Designs
- ✓ E.5 Site Inspections During Construction
- ✓ E.6 Post-Construction Inspections
- ✓ E.7 Other Post-Construction Runoff Controls

F. Pollution Prevention/Good Housekeeping

Measurable Goals (include shared responsibilities)

The Village of Vernon Hills intends to share responsibility for the implementation of its stormwater management program with a Qualifying Local Program (QLP), as outlined below. Note, however, that the primary responsibility for the implementation of the Pollution Prevention/Good Housekeeping MCM lies with the Village of Vernon Hills.

Please note that the current version of the Illinois Environmental Protection Agency's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that the Illinois Environmental Protection Agency (IEPA) will make to the new version of the Permit, both the QLP and the MS4 remain committed to performing activities related to each of the six MCMs described in the current version of the Permit.

Qualifying Local Program:

The Lake County Stormwater Management Commission (SMC) serves as a QLP for Lake County MS4s. As a QLP, SMC performs activities related to each of the six MCMs described in the current version of the Permit, including activities related to Pollution Prevention/Good Housekeeping. Following the expiration of the current version of the Permit on March 31, 2014, SMC plans to continue to perform a variety of activities related to Pollution Prevention/Good Housekeeping, as described in Attachment A.

MS4 Stormwater Management Program:

In accordance with the current version of the Permit, the [insert MS4 name] has developed and implemented a Pollution Prevention/Good Housekeeping program to reduce the amount of pollution generated by municipal activities and operations. The program includes: an employee training program; an operation and maintenance program that incorporates pollution prevention and good housekeeping practices into day-to-day activities and operations; stormwater pollution control and non-stormwater discharge control procedures; waste management and disposal procedures; and, spill prevention, control, and cleanup procedures. Following the expiration of the current version of the Permit on March 31, 2014, the [insert MS4 name] plans to continue to perform a variety of activities related to the Pollution Prevention/Good Housekeeping MCM, as described in Attachment B.

QLP MS4

- ✓ F.1 Employee Training Program
- F.2 Inspection and Maintenance Program
- F.3 Municipal Operations Storm Water Control
- F.4 Municipal Operations Waste Disposal
- ✓ F.5 Flood Management/Assess Guidelines
- F.6 Other Municipal Operations Controls

Part III. 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 gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fines and imprisonment.

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

Michael Allison

Village Manager

September 11, 2013

Authorized Representative Name

Title

Date



Authorized Representative Signature

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

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

A. Public Education and Outreach

BMP Number _____

See Attachments A & B.

Add Another BMP

Delete Last Entry

B. Public Participation/Involvement

BMP Number _____

See Attachments A & B.

Add Another BMP

Delete Last Entry

C. Illicit Discharge Detection and Elimination

BMP Number _____

See Attachments A & B.

Add Another BMP

Delete Last Entry

D. Construction Site Runoff Control

BMP Number _____

See Attachments A & B.

Add Another BMP

Delete Last Entry

E. Post-Construction Runoff Control

BMP Number _____

See Attachments A & B.

Add Another BMP

Delete Last Entry

Additional Info - Page 6

F. Pollution Prevention/Good Housekeeping

BMP Number _____

See Attachments A & B.

Add Another BMP

Delete Last Entry

ATTACHMENT B
SUMMARY OF PROPOSED MS4 STORMWATER MANAGEMENT ACTIVITIES

As part of its stormwater management program, the Village of Vernon Hills conducts a number of activities related to each of the six minimum control measures (MCMs) described in IEPA's General NPDES Permit No. ILR40. Please note that the current version of IEPA's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that IEPA will make to the new version of the Permit, the Village of Vernon Hills remains committed to performing activities related to each of the six MCMs described in the current version of the Permit. Following the expiration of the current version of the Permit on March 31, 2014, the Village of Vernon Hills plans to continue to perform a variety of stormwater management activities, as described in more detail below.

Please note that the Village of Vernon Hills has developed a Stormwater Management Program Plan (SMPP), which describes the Village of Vernon Hills stormwater activities in additional detail. The Village of Vernon Hills SMPP can be viewed at www.vernonhills.org.

A. Public Education and Outreach

As part of its stormwater management program, the Village of Vernon Hills conducts a number of Public Education and Outreach activities that educate and inform the public about the impacts of stormwater runoff on receiving water bodies and the steps that the public can take to reduce those impacts. In coordination and collaboration with the QLP, the Village of Vernon Hills will continue to perform activities related to the Public Education and Outreach MCM, as described below.

A.1 Distributed Paper Material

In addition to the QLP's efforts to distribute informational materials throughout Lake County, which are described in more detail in Attachment A, the Village of Vernon Hills works to compile and distribute within the Village of Vernon Hills a variety of materials related to stormwater management from a variety of sources, including the Lake County Stormwater Management Commission (i.e., QLP), IEPA, US EPA, the Center for Watershed Protection, and other agencies and organizations. The Village of Vernon Hills maintains a list of the types of materials it has made available to the public and the methods through which such materials have been distributed.

Measurable Goal(s): *Distribute informational materials from "take away" rack at Vernon Hills Village Hall.*

Milestone(s): *The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.*

A.4 Community Event

In addition to the QLP's efforts to sponsor or co-sponsor workshops and provide educational presentations, which are described in more detail in Attachment A, the Village of Vernon Hills sponsors and/or attends community outreach events, including meetings, to provide information on stormwater management-related topics. Audiences attending such events may include homeowners associations, lake management associations, businesses, and neighborhood groups. The Village of

Vernon Hills maintains a list of the stormwater management-related community outreach events, including meetings, that it has attended.

Additionally, the Village of Vernon Hills supports the efforts of the Solid Waste Agency of Lake County (SWALCO) to implement programs throughout Lake County that increase reuse, recycling, and composting and reduce reliance on landfills. As part of these waste management efforts, SWALCO conducts dozens of household hazardous waste collection events each year at various locations throughout the county. The Village of Vernon Hills publicizes these household hazardous waste collection events to encourage the public to participate in such events.

*Measurable Goal(s): Sponsor and/or attend stormwater management-related community outreach events, including meetings.
Provide notice of SWALCO household hazardous waste collection events on Village of Vernon Hills website.*

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

A.5 Classroom Education Material

In addition to the QLP's efforts to educate local students, teachers, and other local stakeholders, which are described in more detail in Attachment A, upon request, the Village of Vernon Hills will provide educational presentations on stormwater management-related topics to local students and teachers and/or other local stakeholders. The Village of Vernon Hills maintains a list of the stormwater management-related educational presentations that it has provided at local schools. Additionally, upon request, the Village of Vernon Hills will provide information and training to local students and teachers and/or other local stakeholders interested in conducting storm drain stenciling.

*Measurable Goal(s): Upon request, provide stormwater management-related educational presentation to local students and teachers and/or other local stakeholders.
Upon request, provide information and training to local students and teachers and/or other local stakeholders interested in conducting storm drain stenciling.*

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

A.6 Other Public Education

In addition to the QLP's efforts to distribute information via its website, which are described in more detail in Attachment A, the Village of Vernon Hills maintains a website that contains materials and resources related to stormwater management. The website includes a webpage that provides information about IEPA's NPDES Stormwater Program, information about the Village of Vernon Hills stormwater management program, including its SMPP, NOI, Permit, and Annual Reports, and links to a number of other stormwater management-related resources, including the Lake County Stormwater Management Commission's (i.e., QLP's) website.

Measurable Goal(s): Maintain and update the portion of the Village of Vernon Hills website dedicated to its stormwater management program.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

B. Public Education and Outreach

As part of its stormwater management program, the Village of Vernon Hills conducts a number of Public Participation/Involvement activities that involve and engage the public in the implementation of its stormwater management program. In coordination and collaboration with the QLP, the Village of Vernon Hills will continue to perform activities related to the Public Education and Outreach MCM, as described below.

B.3 Stakeholder Meeting

Watershed stakeholder meetings are regularly held throughout Lake County as part of new and/or ongoing watershed planning and/or project implementation efforts. When the Village of Vernon Hills is a stakeholder in a watershed planning and/or project implementation effort (i.e., any part of the MS4 is located within the boundaries of a watershed subject to a planning and/or project implementation effort), the Village of Vernon Hills participates in scheduled stakeholder meetings and publicizes the meetings to encourage other stakeholders (i.e., homeowner associations, lakes management associations, landowners) to participate.

Measurable Goal(s): As appropriate, attend and provide notice of stakeholder meetings on Village of Vernon Hills website.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

B.4 Public Hearing

The Village of Vernon Hills coordinates and conducts public meetings as well as committee meetings that are open to the public. A bi-monthly, Village Board Meeting is open to the public and involves the Village Board, which includes seven publicly elected representatives. Periodically, information about the Village of Vernon Hills stormwater management program is presented at such meetings.

Measurable Goal(s): Present information about the Village of Vernon Hills stormwater management program at a public meeting at least once each year.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

B.6 Program Involvement

SMC serves as a Qualifying Local Program (QLP) for all Lake County MS4s. In this role, in 2002, SMC proactively formed the Municipal Advisory Committee (MAC) to provide a forum for representatives of local MS4s to discuss, among other topics, the implementation of IEPA's NPDES Stormwater Program. SMC plans to continue to facilitate quarterly MAC meetings to bring Lake County MS4s together to discuss the implementation of IEPA's NPDES Stormwater Program. The Village of Vernon Hills will continue to attend and participate in the quarterly MAC meetings.

Measurable Goal(s): Continue to attend and participate in MAC meetings.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

B.7 Other Public Involvement

The Village of Vernon Hills provides and publicizes a phone number that the public can use to submit information about stormwater-related problems and concerns. The Village of Vernon Hills documents and tracks the resolutions of problems and complaints reported by the public, including reports of illicit discharges and illegal dumping.

Measurable Goal(s): Provide phone number that the public can use to submit information about stormwater-related problems and concerns. As needed, follow up on reports of stormwater-related problems and concerns received from the public.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C. Illicit Discharge Detection and Elimination

As part of its stormwater management program, the Village of Vernon Hills conducts a number of activities related to Illicit Discharge Detection and Elimination. In accordance with the current version of the Permit, the Village of Vernon Hills Illicit Discharge Detection and Elimination program includes:

- A storm sewer system map showing the locations of all outfalls and the names and locations of all waters that receive discharges from those outfalls;
- An ordinance or other regulatory mechanism that prohibits all non-stormwater discharges into the storm sewer system and provides the authority for appropriate enforcement procedures and actions;
- A plan to detect and address all non-stormwater discharges, including illegal dumping, into the storm sewer system;
- A program to educate public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and,
- Annual inspection of storm sewer outfalls for detection of non-stormwater discharges and illegal dumping.

In coordination and collaboration with the QLP, the Village of Vernon Hills will continue to perform activities related to the Illicit Discharge Detection and Elimination MCM, as described below. Note that although the Village of Vernon Hills intends to share responsibility for the implementation of the Illicit Discharge Detection and Elimination MCM with the QLP, as outlined in this NOI, the primary responsibility for the implementation of the Illicit Discharge Detection and Elimination MCM lies with the Village of Vernon Hills.

C.1 Sewer Map Preparation

The Village of Vernon Hills has prepared a storm sewer system map showing the locations of all outfalls and the names and locations of all waters that receive discharges from those outfalls. The storm sewer system map is periodically maintained and updated to include outfalls associated with development projects and any previously unidentified outfalls.

Measurable Goal(s): Maintain and update storm sewer system map.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.2 Regulatory Control Program

The Village of Vernon Hills has adopted an illicit discharge ordinance that prohibits all non-stormwater discharges into the storm sewer system and provides the authority for appropriate enforcement procedures and actions. In addition, the Watershed Development Ordinance (WDO) includes provisions that prohibit illicit discharges to the storm sewer system during construction (i.e., prior to final site stabilization) on development sites.

*Measurable Goal(s): Continue to administer and enforce the illicit discharge ordinance.
Continue to administer and enforce the WDO.*

Milestone(s): The Village of Vernan Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.3 Detection/Elimination Prioritization Plan

The Village of Vernon Hills has developed and implemented a plan to detect and address all non-stormwater discharges, including illegal dumping, into the storm sewer system. Methods used to detect illicit discharges include annual visual dry weather screening, employee reporting, and public reporting. Outfalls with suspicious discharges are assessed to determine whether or not flow is observed and whether or not any indicators of an illicit discharge are present. The results of each inspection are recorded on a form, and based on such results, appropriate follow-up actions are prescribed. Such follow-up actions may include additional inspections, additional water quality sampling and analysis, source tracking, and source removal. Follow-up activities are generally prioritized based on the scope and magnitude of the associated illicit discharge.

*Measurable Goal(s): Conduct annual inspections of storm sewer outfalls for detection of illicit discharges.
Continue to investigate potential illicit discharges identified by employees conducting day-to-day activities and operations (e.g., storm sewer cleaning and maintenance).
Continue to investigate potential illicit discharges identified through public reporting.*

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.4 Illicit Discharge Tracing Procedures

The Village of Vernon Hills has developed procedures for tracking illicit discharges to their source. Methods that can be used to track illicit discharges to their source include drainage area investigations, storm sewer network investigations, and on-site investigations, which may involve smoke testing, dye testing, and/or video inspection to pinpoint the exact source of an illicit discharge. When an illicit discharge is identified, appropriate source tracking procedures are selected and used to track the discharge to its source.

Measurable Goal(s): As needed, implement procedures for tracking illicit discharges to their source.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.5 Illicit Source Removal Procedures

The Village of Vernon Hills has developed procedures for removing illicit discharges from the storm drain system once they have been tracked to their source. These procedures generally include: using an independent third-party to confirm the presence of an illicit discharge; notifying the landowner of the presence of an illicit discharge; requesting and conducting a site inspection with the landowner to pinpoint the source of the illicit discharge and to identify potential remedial actions; notifying the landowner of the need to take corrective action; and, if necessary, enforcing the provisions of the illicit discharge ordinance to have the illicit discharge removed from the storm sewer system.

Measurable Goal(s): As needed, implement procedures for removing illicit discharges from the storm drain system.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.6 Program Evaluation and Assessment

The Village of Vernon Hills periodically evaluates and assesses the effectiveness of its Illicit Discharge Detection and Elimination program. This evaluation is generally based on the results of the Village of Vernon Hills visual dry weather screening program and on the number of non-stormwater discharges and illegal dumping incidents identified through both employee and public reporting. If the Village of Vernon Hills Illicit Discharge Detection and Elimination program is effective, it is logical to assume that, over time, the number of non-stormwater discharges and illegal dumping incidents identified through visual dry weather screening, employee reporting, and public reporting will decline.

Measurable Goal(s): Conduct annual evaluation and assessment of illicit discharge detection and elimination program.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.7 Visual Dry Weather Screening

In accordance with the current version of the Permit, the Village of Vernon Hills conducts annual inspections of storm sewer outfalls for detection of non-stormwater discharges and illegal dumping. During such inspections, outfalls are assessed to determine whether or not flow is observed and whether or not any indicators of an illicit discharge are present. The results of each inspection are recorded on a form, and based on such results, appropriate follow-up actions are prescribed. Such follow-up actions may include additional inspections, additional water quality sampling and analysis, source tracking, and source removal. Follow-up activities are generally prioritized based on the scope and magnitude of the associated illicit discharge.

Measurable Goal(s): Conduct annual inspections of storm sewer outfalls for detection of illicit discharges.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.9 Public Notification

The Village of Vernon Hills provides and publicizes a phone number that the public can use to submit information about stormwater-related problems and concerns. The Village of Vernon Hills documents and tracks the resolutions of problems and complaints reported by the public, including reports of illicit discharges and illegal dumping.

Measurable Goal(s): Provide phone number that the public can use to submit information about stormwater-related problems and concerns, including illicit discharges. As needed, follow up on reports of illicit discharges and illegal dumping received from the public.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.10 Other Illicit Discharge Controls

As part of its Public Education and Outreach program, the Village of Vernon Hills distributes informational materials to businesses and the general public about the hazards associated with illegal discharges and the improper disposal of waste.

Measurable Goal(s): Distribute informational materials about the hazards of illicit discharges and illegal dumping from "take away" rack at Village Hall and through the Village of Vernon Hills website.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D. Construction Site Runoff Control

Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County. The WDO, which is administered and enforced within the Village of Vernon Hills by Village of Vernon Hills, establishes standards for Construction Site Runoff Control. Although the Village of Vernon Hills intends to share responsibility for the implementation of the Construction Site Runoff Control MCM

with the QLP, as outlined in this NOI, the primary responsibility for the implementation of the Construction Site Runoff Control MCM lies with Village of Vernon Hills is currently a Certified Community , as defined by the WDO.

D.1 Regulatory Control Program

The WDO is the regulatory mechanism that requires the use of soil erosion and sediment controls on development sites throughout Lake County. The soil erosion and sediment control provisions of the WDO are included in Article IV, Section B.1.j. of the ordinance. At a minimum, these standards apply to any development project that hydrologically disturbs 5,000 square feet of land or more. As a Certified Community, the Village of Vernon Hills is responsible for the administration and enforcement of the WDO within the Village of Vernon Hills.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.2 Erosion and Sediment Control BMPs

Article IV, Section B.1.j of the WDO specifies the soil erosion and sediment control measures that must be used in conjunction with any land disturbing activities conducted on a development site. It specifies the use of a variety of soil erosion and sediment control BMPs including: minimize soil disturbance; protect adjoining properties from erosion and sedimentation; 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 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; and utilize statewide standards and specifications as guidance for soil erosion and sediment control. As a Certified Community, the Village of Vernon Hills is responsible for the administration and enforcement of the WDO within the Village of Vernon .

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.3 Other Waste Control Program

Article IV, Section B.1.j of the WDO includes provisions related to the control of waste and debris during construction on development sites. As a Certified Community, the Village of Vernon Hills is responsible for the administration and enforcement of the WDO within the Village of Vernon Hills.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.4 Site Plan Review Procedures

A community's designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO. Within certified communities (i.e., communities certified by SMC to administer and enforce the provisions of the WDO), responsibility for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO lies with the MS4; within non-certified communities, the designated enforcement officer is SMC's chief engineer. Since the Village of Vernon Hills is a Certified Community, the Village of Vernon Hills designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO within the Village of Vernon Hills.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.5 Public Information Handling Procedures

The Village of Vernon Hills provides and publicizes a phone number that the public can use to submit information about stormwater-related problems and concerns. The Village of Vernon Hills documents and tracks the resolutions of problems and complaints reported by the public, including reports of soil erosion and sediment control issues on development sites. Since the Village of Vernon Hills is a Certified Community, the Village of Vernon Hills designated enforcement officer is responsible for investigating reports of soil erosion and sediment control issues on development sites within the Village of Vernon Hills.

*Measurable Goal(s): Provide phone number that the public can use to submit information about stormwater-related problems and concerns, including soil erosion and sediment control issues.
As needed, follow up on reports of soil erosion and sediment control issues received from the public.*

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.6 Site Inspection/Enforcement Procedures

Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Within certified communities, the community's designated enforcement officer is responsible for conducting these inspections; within non-certified communities, SMC's chief engineer is responsible for conducting these inspections. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls. Since the Village of Vernon Hills is a Certified Community, the Village of Vernon Hills designated enforcement officer is responsible for conducting site inspections within the Village of Vernon Hills.

Article VII of the WDO specifies the legal actions that may be taken and the penalties that may be imposed if the provisions of the WDO are violated. If development activities on a development site

are not in compliance with the requirements of the WDO, the enforcement officer may issue a stop work order on all development activity on the development site or on the development activities that are in direct violation of the WDO. In addition, failure to comply with any of the requirements of the WDO constitutes a violation of the WDO, and any person convicted of violating the WDO may be fined.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E. Post-Construction Runoff Control

As described above, Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County. The WDO, which is administered and enforced within the Village of Vernon Hills by the Village of Vernon Hills, establishes standards for Post-Construction Runoff Control. Although the Village of Vernon Hills intends to share responsibility for the implementation of the Post-Construction Runoff Control MCM with the QLP, as outlined in this NOI, the primary responsibility for the implementation of the Post-Construction Runoff Control MCM lies with the Village of Vernon Hills, as the Village of Vernon Hills is currently a Certified Community as defined by the WDO.

E.2 Regulatory Control Program

The WDO requires all applicants to adopt stormwater management strategies for controlling post-construction stormwater runoff on development sites. As outlined in Article IV, Section B.1 of the WDO, all applicants must adopt 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 described in Article IV, Section B.1.d of the WDO and must include appropriate stormwater BMPs to address the other applicable post-construction runoff control requirements of the WDO. As a Certified Community, the Village of Vernon Hills is responsible for the administration and enforcement of the WDO within the Village of Vernon Hills.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.3 Long Term O&M Procedures

The Village of Vernon Hills has developed long-term operation and maintenance procedures to help reduce the amount of pollution contained in post-construction stormwater runoff that enters the Village of Vernon Hills storm sewer system. The procedures address both new and existing development.

The Village of Vernon Hills long-term operation and maintenance procedures address new development via the WDO. The WDO requires that maintenance plans be developed for all stormwater management systems designed to serve major developments, as defined by the WDO. Such maintenance plans must include: a description of all maintenance tasks; an identification of the party or parties responsible for performing such maintenance tasks; a description of all permanent

maintenance easements or access agreements, overland flow paths, and compensatory storage areas; and a description of dedicated sources of funding for the required maintenance. The WDO also requires that all stormwater management systems be located within a deed or plat restriction (e.g., easement) to ensure that the system remains in place in perpetuity and that access to the system is maintained in perpetuity for inspection and maintenance purposes. As a Certified Community, the Village of Vernon Hills is responsible for the administration and enforcement of the WDO within the Village of Vernon Hills.

The Village of Vernon Hills long-term operation and maintenance procedures address existing development via an inspection and maintenance program. The Village of Vernon Hills periodically inspects all existing post-construction stormwater management facilities (e.g., detention facilities), including those that have a maintenance plan (i.e., facilities located within developments regulated by the WDO) as well as those that do not (i.e., facilities located within developments pre-dating, and therefore not regulated by, the WDO), to identify any maintenance tasks and/or any repairs that need to be completed. Responsible parties are notified of the inspection results and of the need to complete any maintenance tasks or repairs.

*Measurable Goal(s): Continue to administer and enforce the WDO.
Conduct inspections of existing stormwater management facilities on a five year basis to identify the need for maintenance and/or repairs.*

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.4 Pre-Construction Review of BMP Designs

As described above, a community's designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO. This includes a review of the stormwater BMPs that will be used to meet the post-construction runoff control requirements of the WDO. Since the Village of Vernon Hills is a Certified Community, the Village of Vernon Hills designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO within the Village of Vernon.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.5 Site Inspections During Construction

As described above, Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls. Since the Village of Vernon Hills is a Certified Community, the Village of Vernon Hills designated enforcement officer is responsible for conducting site inspections within the Village of Vernon.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.6 Post-Construction Inspections

As described above, Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process, including after final stabilization and landscaping, after the removal of soil erosion and sediment controls. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls. Since the Village of Vernon Hills is a Certified Community, the Village of Vernon Hills designated enforcement officer is responsible for conducting site inspections within the Village of Vernon Hills.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

F. Pollution Prevention/Good Housekeeping

In accordance with the current version of the Permit, the Village of Vernon Hills has developed and implemented a Pollution Prevention/Good Housekeeping program to reduce the amount of pollution generated by municipal activities and operations. The program includes: an operation and maintenance program that incorporates pollution prevention and good housekeeping into day-to-day activities and operations; spill prevention and response procedures; and, an employee training program.

In coordination and collaboration with the QLP, the Village of Vernon Hills will continue to perform activities related to the Pollution Prevention/Good Housekeeping minimum control measure, as described below. Note that although the Village of Vernon Hills intends to share responsibility for the implementation of the Pollution Prevention/Good Housekeeping MCM with the QLP, as outlined in this NOI, the primary responsibility for the implementation of the Pollution Prevention/Good Housekeeping MCM lies with the Village of Vernon Hills.

F.1 Employee Training Program

The Village of Vernon Hills has developed and implemented an employee training program to help educate employees about the impacts of the pollution generated by municipal activities and operations and the steps that they can take to reduce those impacts. The employee training program teaches employees about the following: the impacts of stormwater runoff on receiving water bodies; the activities and operations that may be sources of stormwater pollution and/or non-stormwater discharges; the roles and responsibilities of each department and each individual employee in reducing the amount of pollution generated by municipal activities and operations; selecting and implementing stormwater best management practices; and, managing and maintaining green infrastructure practices.

Employees are subjected to a software-based employee training program, which provides baseline training on municipal pollution prevention/good housekeeping and are encouraged to attend relevant training opportunities that appear on the list of known employee training resources and opportunities provided by the QLP. Additionally, the Village of Vernon Hills works to identify and develop employee training resources and opportunities that contain educational materials tailored to those activities and operations conducted by specific departments and employees.

Measurable Goal(s): Continue to develop and implement employee training program.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

F.2 Inspection and Maintenance Program

The Village of Vernon Hills regularly inspects and maintains municipally owned or operated properties and infrastructure, including streets, parking lots, stormwater management facilities, storm sewers, landscaped areas, and maintenance facilities. A primary goal of the operation and maintenance program is to address municipal infrastructure repair and maintenance needs in a way that reduces the amount of pollution that collects or that is generated on municipally owned or operated properties. Consequently, the Village of Vernon Hills works to incorporate pollution prevention and good housekeeping into its day-to-day activities and operations.

*Measurable Goal(s): Continue to implement inspection and maintenance program.
Continue to incorporate pollution prevention and good housekeeping practices into day-to-day activities and operations.*

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

F.3 Municipal Operations Stormwater Control

As part of its pollution prevention/good housekeeping efforts, the Village of Vernon Hills has identified municipal activities and operations with the potential to cause stormwater pollution or result in a non-stormwater discharge (e.g., vehicle maintenance, winter roadway maintenance). Through its employee training and operation and maintenance programs, the Village of Vernon Hills works to incorporate pollution prevention and good housekeeping practices into these activities and operations.

Measurable Goal(s): Continue to incorporate pollution prevention and good housekeeping practices into day-to-day activities and operations.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

F.4 Municipal Operations Waste Disposal

Waste management consists of implementing non-structural (i.e., procedural) and structural pollution prevention and good housekeeping practices for handling, storing, and disposing of wastes generated by municipal activities and operations. Through its employee training and operation and maintenance programs, the Village of Vernon Hills works to incorporate these waste management

practices into its day-to-day activities and operations to prevent the release of waste into the storm sewer system.

Measurable Goal(s): Continue to incorporate waste management practices into day-to-day activities and operations.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

F.6 Other Municipal Operations Controls

The Village of Vernon Hills has developed spill prevention, control, and cleanup procedures to prevent and respond to spills that result from municipal activities and operations. Through its employee training and operation and maintenance programs, the Village of Vernon Hills works to incorporate these spill prevention, control, and cleanup procedures into its day-to-day activities and operations to prevent the release of spills into the storm sewer system.

Measurable Goal(s): Continue to incorporate spill prevention, control, and cleanup procedures into day-to-day activities and operations.

Milestone(s): The Village of Vernon Hills began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

ATTACHMENT A
SUMMARY OF PROPOSED QLP STORMWATER MANAGEMENT ACTIVITIES

The Lake County Stormwater Management Commission (SMC) serves as a Qualifying Local Program (QLP) for Municipal Separate Storm Sewer Systems (MS4s) in Lake County. As a QLP, SMC has been working since the early 2000's, when the Illinois Environmental Protection Agency (IEPA) began the process of expanding its NPDES Stormwater Program to include small MS4s, to assist Lake County MS4s in developing and implementing efficient and effective stormwater management programs.

Although SMC is not itself an MS4, as it does not own or operate a separate storm sewer system, it does perform activities related to each of the six minimum control measures (MCMs) described in IEPA's General NPDES Permit No. ILR40. Please note that the current version of IEPA's General NPDES Permit No. ILR40 (Permit) is scheduled to expire on March 31, 2014, and that the new version of the Permit, under which coverage is currently being sought through the submittal of this Notice of Intent (NOI), has not yet been released to the public. Although it is difficult to predict the changes that IEPA will make to the new version of the Permit, SMC remains committed to performing activities related to the six MCMs described in the current version of the Permit. Following the expiration of the current version of the Permit on March 31, 2014, SMC plans to continue to perform a variety of stormwater management activities, as described in more detail below.

A. Public Education and Outreach

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Public Education and Outreach MCM, as described below.

A.1 Distributed Paper Material

SMC compiles, develops, and distributes throughout Lake County a variety of materials related to stormwater management. SMC has produced a number of pamphlets and brochures related to stormwater management and prepares a quarterly newsletter, "Mainstream," as well as an Annual Report, which highlight successful stormwater management activities conducted throughout Lake County. SMC also prepares project fact sheets that provide information about ongoing and recently completed stormwater management projects. In addition, SMC has developed or collaborated on a number of manuals related to stormwater management, such as "Riparian Areas Management: A Citizen's Guide," "A Citizen's Guide to Maintaining Stormwater Best Management Practices," and the "Streambank Stabilization Manual," and will continue to develop or collaborate on such manuals or manual updates on an as-needed basis.

Measurable Goal(s): *Distribute informational materials from "take away" rack at SMC. Upon request, distribute informational materials directly to Lake County MS4s for local distribution.*

Milestone(s): *SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.*

A.2 Speaking Engagement

SMC provides educational presentations related to IEPA's NPDES Stormwater Program on a regular basis at Municipal Advisory Committee (MAC) meetings. Upon request, SMC will provide educational presentations related to IEPA's NPDES Stormwater Program to Lake County MS4s.

Notice of Intent for New or Renewal of General Permit for Discharges from Small MS4s
Summary of Proposed QLP Stormwater Management Activities

*Measurable Goal(s): Provide educational presentations related to IEPA's NPDES Stormwater Program at MAC meetings.
Upon request, provide educational presentations related to IEPA's NPDES Stormwater Program (e.g., "The Big Picture: Water Quality, Regulations & NPDES") to Lake County MS4s.*

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

A.3 Public Service Announcement

A public service announcement related to IEPA's NPDES Stormwater Program will be included in SMC's quarterly newsletter, "Mainstream," at least once each year. SMC will coordinate with the Lake County Department of Transportation (LCDOT) to post watershed identification signage in watersheds where watershed planning or project implementation efforts have occurred or are occurring.

Measurable Goal(s): Include public service announcement related to IEPA's NPDES Stormwater Program in its quarterly newsletter, "Mainstream," at least once each year. Post watershed identification signage in cooperation and collaboration with LCDOT.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

A.4 Community Event

SMC regularly sponsors and co-sponsors educational and technical training workshops on a variety of stormwater management-related topics. Each year, SMC will sponsor or co-sponsor at least one workshop on a topic related to IEPA's NPDES Stormwater Program, such as soil erosion and sediment control, illicit discharge detection and elimination, or stormwater best management practices (BMPs) that can be used to protect and improve water quality.

Measurable Goal(s): Sponsor or co-sponsor workshop on a topic related to IEPA's NPDES Stormwater Program.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

A.5 Classroom Education Material

Upon request, SMC will contribute to the development and compilation of materials for inclusion in a stormwater education kit that can be distributed to local students and teachers and/or other local stakeholders. Additionally, upon request, SMC will provide information, materials, and training to local students and teachers and/or other local stakeholders interested in conducting storm drain stenciling.

Notice of Intent for New or Renewal of General Permit for Discharges from Small MS4s
Summary of Proposed QLP Stormwater Management Activities

Measurable Goal(s): Upon request, develop and compile materials for inclusion in a stormwater education kit.
Upon request, provide information, materials, and training to local students teachers and/or stakeholders interested in conducting storm drain stenciling.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

A.6 Other Public Education

SMC maintains a website that contains a variety of materials and resources related to stormwater management. The website includes webpages such as "National Pollutant Discharge Elimination System Stormwater Program," "Best Management Practices," "Projects," "Publications," "Watershed Management Plans," "Partnerships," and "Advisory Committees." These webpages provide information about IEPA's NPDES Stormwater Program, provide information about stormwater best management practices (BMPs), allow for download of stormwater management-related publications and documents, provide notices of upcoming meetings and ongoing projects, and provide links to a number of other stormwater management-related resources.

Measurable Goal(s): Maintain and update the portion of the SMC website dedicated to IEPA's NPDES Stormwater Program with resources such as model ordinances, case studies, brochures, and links.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

B. Public Participation/Involvement

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Public Participation/Involvement MCM, as described below.

B.3 Stakeholder Meeting

SMC is actively involved in watershed planning throughout Lake County. SMC believes that the watershed planning process cannot happen and will not be successful without the input, interest, and commitment of the watershed stakeholders. Watershed stakeholders may include municipalities, townships, drainage districts, homeowner associations, lakes management associations, developers, landowners, and local, county, state, and federal agencies.

Measurable Goal(s): Provide notice of stakeholder meetings on SMC website.
Track number of watershed committee meetings conducted.
Establish watershed planning committees for each new watershed planning effort.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

B.4 Public Hearing

SMC coordinates and conducts public meetings as well as committee meetings that are open to the public. A monthly Stormwater Management Commission meeting is open to the public and involves the SMC Board of Commissioners, which includes six municipal representatives and six county board members.

The Technical Advisory Committee (TAC) was created in 1992 to assist in the development, review, and revision of the Watershed Development Ordinance (WDO) and the associated administrative policies and procedures. TAC is made up of representatives from the development, environmental, municipal, and consulting engineering fields. TAC meetings are held monthly or on an as-needed basis.

The Municipal Advisory Committee (MAC) is made up of municipal, township, drainage district, consulting firm, and county representatives. MAC has worked to discuss, coordinate, and collaborate on the implementation of IEPA's NPDES Stormwater Program. MAC will continue to meet quarterly or as needed to assist Lake County MS4s with the implementation of IEPA's NPDES Stormwater Program.

The Watershed Management Board (WMB) meets annually to make recommendations on stormwater BMP project funding. WMB members include chief municipal elected officials, township supervisors, drainage district chairs, and county board members from each district within each of Lake County's four major watersheds.

*Measurable Goal(s): Provide notice of public meetings on SMC website.
Track number of meetings conducted.*

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

B.6 Program Involvement

Consistent with Lake County's comprehensive, countywide approach to stormwater management, SMC serves as a Qualifying Local Program (QLP) for all Lake County MS4s. In this role, in 2002, SMC proactively formed the Municipal Advisory Committee (MAC) to provide a forum for representatives of local MS4s, which include municipalities, townships, and drainage districts, to discuss, among other topics, the implementation of IEPA's NPDES Stormwater Program. SMC will continue to facilitate quarterly MAC meetings and will continue to provide general support to Lake County MS4s as they continue to develop and implement their stormwater management programs. SMC will prepare an annual report on its stormwater management activities and will provide guidance to Lake County MS4s in preparing their own annual reports.

*Measurable Goal(s): Track number of MAC meetings conducted.
Prepare annual report on Qualifying Local Program stormwater management activities.
Prepare template for use by Lake County MS4s in creating their own annual reports.*

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C. Illicit Discharge Detection and Elimination

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Illicit Discharge Detection and Elimination MCM, as described below. Note, however, that the primary responsibility for the implementation of the Illicit Discharge Detection and Elimination MCM lies with the MS4.

C.2 Regulatory Control Program

SMC provides local MS4s with model and example illicit discharge ordinances that prohibit all non-stormwater discharges, including illegal dumping, to the storm sewer system. Additionally, the WDO includes provisions that prohibit illicit discharges to the storm sewer system during construction (i.e., prior to final site stabilization) on development sites.

Measurable Goal(s): Provide model and example illicit discharge ordinances to Lake County MS4s. Continue to administer and enforce the WDO.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

C.10 Other Illicit Discharge Controls

SMC regularly sponsors and co-sponsors educational and technical training workshops on a variety of stormwater management-related topics. Each year, SMC will sponsor or co-sponsor an illicit discharge detection and elimination workshop or other training workshop related to IEPA's NPDES Stormwater Program and track the number of attendees that attend the workshop.

Additionally, as part of its public education and outreach efforts, SMC distributes informational materials throughout Lake County about the hazards associated with illegal discharges and the improper disposal of waste.

Measurable Goal(s): Sponsor or co-sponsor and track the number of attendees at an Illicit Discharge Detection and Elimination workshop or other training workshop related to IEPA's NPDES Stormwater Program. Distribute informational materials about the hazards of illicit discharges and illegal dumping from "take away" rack at SMC and SMC website.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D. Construction Site Runoff Control

Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County, including requirements for construction site runoff control. SMC will continue to support Lake County MS4s in the implementation of the Construction Site Runoff Control MCM by administering and enforcing the WDO and performing other stormwater management activities, as described below. Note, however, that the primary responsibility for the implementation of the Construction Site Runoff

Control MCM in certified communities (i.e., communities certified by SMC to administer and enforce the provisions of the WDO) lies with the MS4.

D.1 Regulatory Control Program

The WDO is the regulatory mechanism that requires the use of soil erosion and sediment controls on development sites throughout Lake County. The soil erosion and sediment control provisions of the WDO are included in Article IV, Section B.1.j. of the ordinance. At a minimum, these standards apply to any development project that hydrologically disturbs 5,000 square feet of land or more.

SMC has also created a Designated Erosion Control Inspector (DECI) program. The purpose of the program is to facilitate positive communication between the permit issuing agency, whether such agency be SMC or a certified community, and the permit holder, by creating a single point of contact for the discussion and resolution of site soil erosion and sediment control issues and concerns. Furthermore, the program is intended to improve site conditions, minimize environmental impacts, and educate contractors, developers, and inspectors about the use of soil erosion and sediment control BMPs. It is worth noting that the DECI program was designed to closely mirror the inspection requirements of IEPA's General NPDES Permit No. ILR10.

Measurable Goal(s): *Continue to administer and enforce the WDO.
Continue to administer the Designated Erosion Control Inspector (DECI)
program outlined by the WDO.*

Milestone(s): *SMC began implementation of this BMP in March 2003 and will continue to
implement it on an annual basis.*

D.2 Erosion and Sediment Control BMPs

Article IV, Section B.1.j of the WDO specifies the soil erosion and sediment control measures that must be used in conjunction with any land disturbing activities conducted on a development site. It specifies the use of a variety of soil erosion and sediment control BMPs including: minimize soil disturbance; protect adjoining properties from erosion and sedimentation; 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 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; and utilize statewide standards and specifications as guidance for soil erosion and sediment control.

SMC has also prepared a Technical Reference Manual (TRM) to accompany the WDO. The TRM is used to guide the creation of development plans that are in compliance with the provisions of the WDO and provides detailed information on the use of soil erosion and sediment control BMPs. It is currently being updated by the Technical Advisory Committee (TAC).

Measurable Goal(s): *Continue to administer and enforce the WDO.
Continue to work on updates to the Technical Reference Manual (TRM) and
toward publication of the updated document.*

Milestone(s): *SMC began implementation of this BMP in March 2003 and will continue to
implement it on an annual basis.*

D.3 Other Waste Control Program

Article IV, Section B.1.j of the WDO includes provisions related to the control of waste and debris during construction on development sites.

Measurable Goal(s): Continue to administer and enforce the provisions of the WDO related to the control of waste and debris during construction on development sites.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.4 Site Plan Review Procedures

A community's designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO. Within certified communities (i.e., communities certified by SMC to administer and enforce the provisions of the WDO), responsibility for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO lies with the MS4; within non-certified communities, the designated enforcement officer is SMC's chief engineer. All designated enforcement officers must pass an exam in order to qualify to act as such. SMC administers this enforcement officer program, providing training on an as-needed basis to all enforcement officers to assist them in passing the exam, and maintains an up-to-date list identifying each community's designated enforcement officer. In addition to administering the enforcement officer program, SMC periodically reviews each community's WDO administration and enforcement records, using the results of such review to evaluate the performance of certified communities and designated enforcement officers.

SMC has also prepared a Technical Reference Manual (TRM) to accompany the WDO. The TRM is used to guide the creation of development plans that are in compliance with the provisions of the WDO and provides additional guidance on the administration and enforcement of the ordinance. It is currently being updated by the Technical Advisory Committee (TAC).

Measurable Goal(s): Administer the Enforcement Officer (EO) program outlined by the WDO. Maintain an up-to-date list identifying each community's designated enforcement officer. Periodically review each community's WDO administration and enforcement records. Continue to work on updates to the Technical Reference Manual (TRM) and toward publication of the updated document.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.5 Public Information Handling Procedures

SMC provides a number of opportunities for the receipt and consideration of information submitted by the public. SMC's Citizen Inquiry Response System (CIRS) documents and tracks the resolution of problems and complaints reported by the public. SMC's website provides information on "who to call" for various stormwater-related problems and concerns. An Interagency Coordination Agreement between SMC, the US Army Corps of Engineers, and the National Resources Conservation Service specifies that if any of these agencies receive a report of a soil erosion and

sediment control issue, they will relay such report to SMC. SMC will then investigate the report and prescribe appropriate corrective actions, sharing the results of such investigation with the property owner and any applicable local, state, or federal agencies. Within certified communities, such investigations are coordinated with the community's designated enforcement officer.

Measurable Goal(s): Document and track the number of soil erosion and sediment control-related complaints received and processed by SMC.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

D.6 Site Inspection/Enforcement Procedures

Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Within certified communities, the community's designated enforcement officer is responsible for conducting these inspections; within non-certified communities, SMC's chief engineer is responsible for conducting these inspections. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls.

Article VII of the WDO specifies the legal actions that may be taken and the penalties that may be imposed if the provisions of the WDO are violated. If development activities on a development site are not in compliance with the requirements of the WDO, the enforcement officer may issue a stop work order on all development activity on the development site or on the development activities that are in direct violation of the WDO. In addition, failure to comply with any of the requirements of the WDO constitutes a violation of the WDO, and any person convicted of violating the WDO may be fined.

Measurable Goal(s): Document and track the number of site inspections conducted by SMC.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E. Post-Construction Runoff Control

As described above, Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County, including requirements for post-construction runoff control. SMC will continue to support Lake County MS4s in the implementation of the Post-Construction Runoff Control MCM by administering and enforcing the WDO and performing other stormwater management activities, as described below. Note, however, that the primary responsibility for the implementation of the Post-Construction Runoff Control MCM in certified communities (i.e., communities certified by SMC to administer and enforce the provisions of the WDO) lies with the MS4.

E.2 Regulatory Control Program

The WDO requires all applicants to adopt stormwater management strategies for controlling post-construction stormwater runoff on development sites. As outlined in Article IV, Section B.1 of the

WDO, all applicants must adopt 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 described in Article IV, Section B.1.d of the WDO and must include appropriate stormwater BMPs to address the other applicable post-construction runoff control requirements of the WDO.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.3 Long Term O&M Procedures

The WDO requires that maintenance plans be developed for all stormwater management systems designed to serve major developments, as defined by the WDO. Such maintenance plans must include: a description of all maintenance tasks; an identification of the party or parties responsible for performing such maintenance tasks; a description of all permanent maintenance easements or access agreements, overland flow paths, and compensatory storage areas; and a description of dedicated sources of funding for the required maintenance. The WDO also requires that all stormwater management systems be located within a deed or plat restriction (e.g., easement) to ensure that the system remains in place in perpetuity and that access to the system is maintained in perpetuity for inspection and maintenance purposes.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.4 Pre-Construction Review of BMP Designs

As described above, a community's designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO. This includes a review of the stormwater BMPs that will be used to meet the post-construction runoff control requirements of the WDO.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.5 Site Inspections During Construction

As described above, Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.6 Post-Construction Inspections

As described above, Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process, including after final stabilization and landscaping, after the removal of soil erosion and sediment controls. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls.

Measurable Goal(s): Continue to administer and enforce the WDO.

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

E.7 Other Post-Construction Runoff Controls

Through the Watershed Management Board (WMB), SMC provides partial funding for flood damage reduction and surface water quality improvement projects. The WMB, which includes representatives from the Lake Michigan, North Branch of the Chicago River, Fox River, and Des Plaines River watersheds, meets annually to review potential projects and to make recommendations on stormwater BMP project funding. Members of the WMB include chief municipal elected officials, township supervisors, drainage district chairmen, and county board members from each district found within each of Lake County's four major watersheds. The goal of the WMB program is to maximize opportunities for local units of government and other groups to have input and influence on the solutions used to address local stormwater management problems. Previous WMB-funded projects have reduced flooding, improved surface water quality, and enhanced existing stormwater management facilities throughout Lake County.

*Measurable Goal(s): Conduct annual WMB meeting.
Contribute funding to flood damage reduction and water quality improvement projects through the WMB.*

Milestone(s): SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.

F. Pollution Prevention/Good Housekeeping

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Pollution Prevention/Good Housekeeping MCM, as described below. Note, however, that the primary responsibility for the implementation of the Pollution Prevention/Good Housekeeping MCM lies with the MS4.

F.1 Employee Training Program

SMC will assist Lake County MS4s with the development and implementation of their employee training programs by maintaining a list of known employee training resources and opportunities, making available a software-based employee training program, and providing, upon request, technical assistance to local MS4s in developing and implementing their employee training programs. In addition, each year, SMC will sponsor or co-sponsor a training workshop related to pollution prevention/good housekeeping or another workshop related to IEPA's NPDES Stormwater Program.

Measurable Goal(s): *Maintain a list of known employee training resources and opportunities. Make available the Excal Visual Storm Watch: Municipal Storm Water Pollution Prevention software-based employee training program. Sponsor or co-sponsor a training workshop related to pollution prevention/good housekeeping or another training workshop related to IEPA's NPDES Stormwater Program.*

Milestone(s): *SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.*

F.5 Flood Management/Assess Guidelines

In working toward meeting its primary goals of flood damage reduction and surface water quality improvement, SMC follows a set of stormwater management policies that were created to define its roles and responsibilities for stormwater management in Lake County. One of these policies is to integrate multi-objective opportunities (e.g., flood damage reduction, surface water quality improvement, environmental enhancement) into SMC-sponsored projects. In accordance with this policy, SMC will evaluate all SMC-sponsored projects for multi-objective opportunities.

Measurable Goal(s): *Track number of SMC-sponsored projects that are reviewed for multi-objective opportunities.*

Milestone(s): *SMC began implementation of this BMP in March 2003 and will continue to implement it on an annual basis.*