# STORMWATER MANAGEMENT PROGRAM PLAN



Cranberry Lake - Hainesville, IL

# VILLAGE OF HAINESVILLE Lake County, Illinois

**April 2013** 

## SMPP

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## 1 Overview of the Stormwater Management Program Plan



## 1.1 Introduction

This Stormwater Management Program Plan (SMPP) was developed by the Village of Haineville 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 the Village of Hainesville 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 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.

## 1.2 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 NDPES program to the Illinois Environmental Protection Agency (IEPA). On December 20, 1999 the IEPA issued a general NPDES Phase II permit for all MS4s. The General Permit is included in **Appendix 4.4**.

Additionally, under the General ILR10 permit also administered IEPA, all construction projects that disturb greater than one (1) acre of total land area are required to obtain an NPDES permit from IEPA prior to the start of construction. Municipalities covered by the General ILR40 permit, are automatically covered under ILR10 30 days after the IEPA receives the Notice of Intent (NOI) from the municipality.

## 1.3 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. 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.

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.

SMC countywide services qualify for credit under four of the six Minimum Control Measures:

- 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.

## 1.4 Watersheds, Sub-Watersheds and Receiving Waters



**Fox River** 

The Village of Hainesville is located within the Fox River watershed and further drains in to the Squaw Creek subwatershed.

### Fox River Watershed

The Fox River originates about 15 miles northwest of Milwaukee, Wisconsin. The river enters the northwest corner of Lake County in the Chain O'Lakes area and then enters McHenry County, but reenters Lake County south of Fox River Valley Gardens. About 163 square miles of Lake County drains to the Fox River.

Along the Fox River from the state line to Algonquin, the terrain is flat and contains many lakes and low-lying wetlands. The upland areas of the watershed include gently sloping topography to steep hilly terrain.

Major tributaries to the Fox River in Lake County include the Chain O'Lakes, Sequoit Creek, Squaw Creek, Mutton Creek, Slocum Lake Drain, Tower Lake Drain and Flint Creek. The northern area around the Chain O'Lakes is substantially developed around the many lakes while the middle of the watershed is experiencing an increase in suburbanization. The same can be said for the southern area of the watershed, which includes existing and new development with estate and rural estate development.

The Fox River watershed includes all or portions of the communities of Antioch, Barrington, Barrington Hills, Deer Park, Fox Lake, Fox River Grove, Grayslake, Hainesville, Hawthorn Woods, Island Lake, Lake Barrington, Lake Villa, Lake Zurich, Lakemoor, Mundelein, North Barrington, Port Barrington, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake Park, Tower Lakes, Hainesville and Wauconda.

SMC has completed watershed management plans for the Fish Lake Drain, Flint, Sequoit and Squaw Creek subwatersheds.

## 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.

## 2.1 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 Phase II program and how to perform these tasks. Appendix 4.1 includes the related tracking form. This form 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 form should be filed 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.

## 2.2 Intra-Department Coordination

The Board of Trustees is the policy and budget setting authority for the Village of Hainesville. The selected Enforcement Office (E/O) (discussed below) has primary responsibility for managing the overall program.

## 2.2.A Enforcement Officer (E/O)

The Enforcement Officer is responsible for the oversight and implementation of this SMPP. The Enforcement Officer 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. He/she is also responsible for understanding the requirements of ILR40, ensures that the SMPP meets the requirements of the permit and that the Village effectively implements the SMPP.

## 2.2.B Engineering Consultant

The engineering consultant provides the Village of Hainesville with a capable E/O and supports the Village in obtaining and maintaining compliance with both the NDPES and WDO programs. The engineering consultant is also the Enforcement Officer with respect to the administration and enforcement of the Lake County Watershed Development Ordinance (WDO). The Enforcement Officer 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 3.4-3.5 for additional information on this process.

## 2.2.C Public Works

Infrastructure maintenance activities within the MS4 are carried out with in-house personnel.

## 2.3 Coordination with Lake County Stormwater Management Commission

Lake County Stormwater Management Commission (SMC) is the QLP for the Village of Hainesville. Coordination between the MS4 and the 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 Enforcement Officer is the lead contact for participation in the MAC forums and is responsible for enforcement of the WDO.

## 2.4 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 3.1. The Public Participation and Involvement Program of this SMPP is discussed in Chapter 3.2. The Public has the opportunity to comment on proposed preliminary and final plats through the Plan Commission and Village Board process established in the Municipal Code. Monthly Wetlands & Open Space Committee public meeting are also held.

## 2.5 Coordination with the IEPA

The Village of Hainesville is required to complete an annual report describing the status of compliance with the ILR40 permit conditions and other related information. 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. The IEPA has authority to require changes to the SMPP as needed order requirements of ILR40 in to satisfy the the permit (http://hainesville.org/departments/public-works/).

## 2.6 Coordination with the Development Community

The Village of Hainesville has a responsibility to assist the development community in understanding when an ILR10 permit is required and whether construction sites comply with the general ILR10 and WDO permit conditions.

## 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.



## 3.1 Public Education and Outreach

The Village of Hainesville, 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.

## **3.1.A** Distribution of Paper Materials

Village of Hainesville actively pursues the acquisition of educational materials prepared by the QLP, IEPA, USEPA, Center for Watershed Protection, Chicago Metropolitan Agency for Planning "CMAP", Solid Waste of Lake County (SWALCO) and other agencies and organizations.

The educational materials shall cover topics such as: 1) the impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff; and 2) green infrastructure strategies, the benefits and costs of such strategies and how to implement them. Educational materials are provided at a take-away rack located at the reception desk in Village Hall. Additional publications can be obtained at the Lake County Stormwater Management office.

## 3.1.B Web Site

The Village of Hainesville's web site has stormwater information posted on the Public Works page (<u>http://hainesville.org/departments/public-works/</u>). The stormwater information page includes contact information as well as copies of publications in digital format. The web-site is updated by Village staff on a regular basis. This SMPP, the NOI and Annual Report are posted on the Village's website.

## 3.1.C

## **3.1.D Outreach Events**

When possible, the Village of Hainesville attends outreach events and scheduled meetings with the general public. These events are attended or held on an as needed or as requested basis. Audiences may include the home owners associations, lake associations, businesses, and neighborhood groups. The Village will document date and audience of outreach events.

## **3.1.E** 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. Information regarding the time and place of these workshops can be obtained through the QLP website or by contacting the QLP directly. The Village will document attendance at all workshops.

## **3.1.F** SWALCO – Household Hazardous Wastes

The Village supports the initiatives of the Solid Waste Agency of Lake County (SWALCO) to employ a range of tools to improve resident participation. SWALCO provides solid waste management programs to Lake County (in both incorporated and unincorporated areas). There 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 yard waste. Their recycling programs are targeted at both commercial and residential markets in order to divert as much solid waste as possible from reaching landfills. SWALCO 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 Hainesville will coordinate with SWALCO to participate in collections. These collections encourage the proper disposal of hazardous materials. Typically there is a spring through summer clean-up event that facilitates proper disposal of electronic devices and a fall event for disposal of paint and solvents. At a minimum, the Village encourages participation in the event by publicizing these special collections on the Village web-site. The Village will document these events each year.

## 3.2 Public Participation and Involvement

The public participation and involvement aspect of the SMPP encourages input from citizens regarding the program plan. The plan will be revised regularly to incorporate desired changes and improvements. The Village will comply with State and local public notice requirements when implementing a public participation and involvement program. The plan is presented annually at the Public Works Committee meetings.

## **3.2.A** Complaints, Suggestions and Requests

Calls are screened and routed to the appropriate department for action. General program related calls are directed to the Village's Enforcement Officer, 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 Stormwater Coordinator, or designee. The Village website provides contact information and encourages public inquiry on these issues.

## **3.2.B** Watershed Planning and Stakeholders Meetings

Village of Hainesville participates in QLP or other sponsored watershed planning events. The Village will adopt Watershed Plans per the direction and in coordination with the QLP.

## **3.2.C** Illicit Discharge/Illegal Dumping Hotline

The Village of Hainesville will maintain an accessible webpage where message are delivered via RSS feed to the appropriate individual(s). Telephone calls received from residents, other internal Departments or other agencies are logged on the **Indirect Illicit Discharge Tracking Form** (**Appendix 4.2**).

## **3.2.D LCSMC** Municipal Advisory Committee (MAC)

The Village of Hainesville participates in MAC meetings and events hosted by the QLP. The Village will document attendance at meetings.

## 3.3 Illicit Discharge Detection and Elimination

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

## **3.3.A 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 the 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 MS4 jurisdiction.

## 3.3.A.1 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.

## 3.3.A.2 Illicit Discharge Ordinance

The Village of Hainesville created and adopted an Illicit Discharge Ordinance: Village Code – Title 13: Chapter 13.60. The Ordinance is the mechanism to allow for the execution and enforcement of the SMPP and is strictly enforced by the Village.

## **3.3.B** Understanding Outfalls, Receiving Waters and Illicit Discharges

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

## 3.3.B.1 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.

Outfall locations are labeled on the Village of Hainesville *Storm Sewer Outfall Priority Map.* The Storm Sewer Map is reviewed and updated annually to incorporate new permitted outfalls and existing unmapped outfalls. The search for new outfalls should be combined with the prescreening efforts.

## 3.3.B.2 Outfall Inspection Procedure

The identification of potential illicit discharge locations is primarily a two part process, prescreening and follow-up inspections. Once probable illicit discharges are found, identify the sources of illicit discharges and correct per the removal procedure of Chapter 3.3.B.2.d. Detailed description of the inspection & monitoring protocols are further provided in the Village of Hainesville *MS4 Illicit Discharge Detection and Elimination (IDDE)* and *Commercial/Industrial Inspection Program, Program Protocols & Procedures* documents, located in the Appendices of this document (Appendix 4.6).

### 3.3.B.2.a PRE-SCREENING

Pre-screening consists of a rapid inspection of outfalls during dry weather flow conditions. Inspections shall occur following a dry-weather period of at least 72 hours. Due to the high number of sump pump connections in the Village of Hainesville, dry weather discharge can be expected. Outfalls with questionable dry weather flows shall be scheduled for an outfall inspection. Outfalls shall be screened annually to detect illicit discharges.

### 3.3.B.2.b OUTFALL INSPECTION



An outfall inspection is required for outfalls determined to have dry weather flow, or with submerged outlets, based on the pre-screening efforts. The Village of Hainesville shall maintain assessment information for all inspected outfalls noting the date and results of the inspection. Outfalls identified as having questionable discharges shall be thoroughly investigated. An independent laboratory shall be contracted to test samples and determine if illicit discharges are present.

### 3.3.B.2.c SOURCE IDENTIFICATION

The Village shall proceed with source identification upon confirmation of an illicit discharge. For each outfall identified to have an illicit discharge, a large-scale working map should be obtained that includes the entire upstream storm sewer network and parcel boundary information. Land use data should be evaluated to determine the residential, commercial, or industrial areas that might contribute the type of pollution identified at the outfall. After conducting the mapping evaluation, a manhole-by-manhole inspection is conducted to pinpoint the location of the illicit discharge.

### 3.3.B.2.d REMOVAL OF ILLICIT DISCHARGES

The Village of Hainesville shall send a notification letter to the owner/operator of the property/site suspected of discharging a pollutant. The letter shall inform the site owner/operator of the problem and instruct them to take corrective measures. If the owner/operator does not voluntarily initiate corrective action, the Village of Hainesville shall prosecute the violation in accordance with the Municipal Code.

## 3.4 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 one (1) acre are also required to seek coverage under the statewide construction general permit by filing a Notice of Intent (NOI) with IEPA.

## **3.4.A Regulatory Program**

The Village of Hainesville has adopted the Lake County Watershed Development Ordinance (WDO) and is currently a Certified Community in charge of 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.

## **3.4.B** Site Plan Review

The Village provides applicants with the applicable municipal permit applications including the Watershed Development Permit (WDP) application. The Enforcement Officer 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 Enforcement Officer concurs that the applicable provisions of the WDO have been met, a permit may be issued. The permit lists any additional conditions that are applicable for the development. 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.

## **3.4.C** 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.

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.

### **3.4.D** Site Inspection Procedures

Representatives of the Village of Hainesville 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 then 0.5-inches of rainfall,
- 7. After final stabilization and landscaping, prior to removal of sediment controls.

## **3.4.E** Complaints and Suggestions from Public

The Village may receive 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, or designee. Site design comments are handled on a case by case basis. Construction related calls are typically addressed by performing a site inspection.

## **3.4.F** 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.

## **3.5 Post Construction Runoff Control**

The Village of Hainesville complies with NDPES permit requirements by incorporating Ordinance and BMP standards to minimize the discharge of pollutants from development projects. This chapter describes how compliance is achieved with long-term post-construction practices that protect water quality and control runoff flow.

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.

## **3.5.A 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.

## **3.5.B** 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 must ensure that the development plan addresses these provisions during the plan review process.

## **3.5.C** 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 ensure that the development plan incorporates 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.

## **3.5.D** Long Term Operation and Maintenance

The SMPP includes two long term maintenance plans. These sample maintenance plans are included in **Appendix 4.3**.

- 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, it 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.

## **3.5.E** Site Inspections

The Village regularly inspects all properties with existing stormwater management facilities to ensure proper operation and maintenance. Responsible parties are notified of the results of the inspections and given completion dates for identified deficiencies. The Village shall maintain records of all inspections.

## 3.6 Pollution Prevention and Good Housekeeping

The Village is responsible for the care and upkeep of municipal facilities and roads. Many maintenance activities are performed by contractors 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.

## **3.6.A** Inspection and Maintenance Program

The following section describes 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.

## 3.6.A.1 Street Sweeping

Street sweeping operations are contracted on an as needed basis to reduce potential illicit discharges and to provide a clean environment.

## 3.6.A.2 Drainage ways

Drainage ways 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 drainage way, in or into which surface or groundwater flows, either perennially or intermittently. Minor drainage ways include roadside and side yard swales, overland flow paths, pond outlets, etc.

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, 847-705-4401, is notified. Similarly, the County of Lake, 847-362-3950, is contacted for work within their right of way.

### 3.6.A.2.a POND OUTLETS

The **Storm Sewer Atlas** is used to determine pond outlet locations. Structures are added to the checklist after new developments are approved and accepted. Pond Outlets are inspected on an annual basis. Observed obstructions are cleared and debris hauled to the designated spoil waste area.

## 3.6.A.2.b CATCH BASINS

Catch basin locations are identified on the **Storm Sewer Atlas**. Visual inspections are made on a routine basis and maintenance is contracted on an as needed basis. Catch basins found to have structural deficiencies are reported to the Village's E/O. Necessary remedial actions are incorporated into a capital project if necessary. The locations of inspected and/or cleaned catch basins are tracked.

## 3.6.A.3 Landscape Maintenance

The Village maintains care and upkeep of its general facilities, municipal roads, and other public areas. The Village annually selects and contracts with a landscape contractor. The landscape contractor is responsible for adhering to the landscape maintenance program. 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.

## 3.6.A.4 Snow Removal and Ice Control



The Village of Hainesville contracts with outside vendors to perform snow removal and ice control on municipal streets.

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.

In conjunction with snow removal the contract vendor uses the minimal amount of de-icing chemicals and additives necessary for effective snow and ice control operations.

The Village utilizes liquid products for anti-icing and pre-wetting operations. The liquid materials used may be combination of salt brine, calcium chloride, and agricultural products such as beet juice. The liquid is applied as an anti-icing measure prior to predicted snow or ice events.

Steps are taken to ensure delivery, storage and distribution of salt does not pollute stormwater runoff from the road maintenance facilities. The floor of the salt dome and adjacent receiving/unloading areas are constructed of impermeable pavement. Delivered salt is unloaded at the road maintenance facilities and loaded into the dome using an end loader. The dome provides protection from rain and wind.

## *3.6.A.5 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. Currently, Village vehicles are fueled at public fuel stations and vehicle maintenance is performed by independent mechanic shops.

## **3.6.B** Employee Training

The Village strives to provide education and training to ensure their employees have the knowledge and skills necessary to perform their functions effectively. The purpose of employee training is to teach 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 nonstormwater discharges; and,
- How to use the SMPP and available guidance materials to select and implement best management practices.

Employees are encouraged to attend all relevant training sessions offered by the QLP and other entities on topics related to the goals/objectives of the SMPP.

# 4 Appendices

## 4.1 Task List

TASK LIST					
Location	Description	Map Number Location	Approximate Cost	Frequency	
Deerpoint Trails Phase 1&2 Outfalls	Clean Restrictor Debris, Hand-Dig Outfall to Drain	10	Use In-House Staff	Quarterly	
Misty Hill Outfall	Clean Restrictor Debris, Hand-Dig Outfall to Drain	11	Use In-House Staff	Quarterly	
Deerpoint Trails Phase 3&4 Outfalls	Clean Restrictor Debris, Hand-Dig Outfall to Drain	12	Use In-House Staff	Monthly	
Sanctuary/Settlement Outfalls	Clean Restrictor Debris, Hand-Dig Outfall to Drain	13	Use In-House Staff	Quarterly	
Union Square	Clean Restrictor Debris, Hand-Dig Outfall to Drain	14	Use In-House Staff	Annual	
Cranberry Lake Phase 1,2,3 Outfall	Clean Restrictor Debris, Hand-Dig Outfall to Drain	15	Use In-House Staff	Quarterly	
Cranberry Lake Phase 4 Outfall	Clean Restrictor Debris, Hand-Dig Outfall to Drain	16	Use In-House Staff	Quarterly	
Metra/Russo Structure Outfall Structure	Clean Debris From Grate	17	Use In-House Staff	Monthly	
30" Cranberry Lake Culvert @ Hainesville Road	Inspect and Alert LCDOT of Problems	18	Use In-House Staff	Annual	
36" Big Horn Drive Culvert	Clean Debris as needed	19	Use In-House Staff	Annual	
27" Washington Street Culvert	Inspect and Alert LCDOT of Problems	20	Use In-House Staff	Annual	
Update Storm Atlas	Improve Map Accuracy	N/A	\$7,500/year	Annual	
MS4 Annual Inspection and Reporting for IEPA	Outfall Inspections and Sampling	N/A	\$7,500/year	Annual	

## 4.2 Indirect Illicit Discharge Tracking Form

4.2 ILLICIT DISCHARGE TRACKING FORM

							TRACKING FORM
		licit ]	Discharge Inc	cident Tra	acking Form		
Incident II	):						
Responder I	nformation						
Call taken by	7:				Call date:		
Call time:					Precipitation (inch	es) in p	oast 24-48 hrs:
Reporter In	formation					_	
Incident time	:				Incident date:		
Caller contac	et information (option	al):					
Incident L	ocation (complete	one or i	more below)				
Latitude and	longitude:						
Stream addre	ess or outfall #:						
Closest stree	t address:						
Nearby land	nark:						
Primary Lo	cation Description	Secor	Secondary Location Description:				
Stream co	orridor			m flow		long banks	
( <i>In or adjace</i>	<i>ent to stream)</i> rea			her water source (storm water pon		er pond, wetland, etc.)	
(Land not ad	jacent to stream)	Near storm drain					<b>r r , , , , , , , , , ,</b>
Narrative des	scription of location:						
U-land D		<b>D</b>					
	roblem Indicator			1			
Wash wa	ter, suds, etc.		Other:				
Stream Co	brridor Problem	Indica	ator Description	n			
Odor	None None				Rancid/Sour		Petroleum (gas)
Odol	Sulfide (rotten e	rotten eggs); Other: Describe in "Narrat			ve" section		
	"Normal"	Oil sheen			Cloudy		Suds
Appearance	Other: Describe in "Narrative" section						
	 None:	Sewage (toilet paper, etc)			Algae		Dead fish
Floatables	Other: Describe	e in "Narrative" section					
Narrative des	scription of problem i	ndicato	rs:				
Suspected V	iolator (name person	al or ve	hicle description 1	icense nlate #	etc):		
Suspected V	relation (nume, person				,		

## 4.3 Sample Maintenance Plans

### 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 longterm 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.

## 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.

### General -

- 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.

### Storage Facilities (Detention, Retention and Water Quality Treatment Facilities)

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.

### Swales –

- \_\_\_\_\_ 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 sideyard 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 <u>Native Plant Guide for Streams and Stormwater</u> <u>Facilities in Northeastern Illinois</u>, or hire an environmental or landscape specialist, 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.

## 4.4 General Permit ILR40



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2107782-0610

February RI, 2016.

Re: General NPDES Permit TLR40 for Discharge from Suball Municipal Separate Storm Sever Systems (MS4)

Dear Permillee:

Enclosed with this letter is the reasoned General NPDES Permit FLR40 for the discharge of storm ware) from sound MS/Is. Significant changes have been made in the final permit based on comments received by the Agency. Please review the final permit and make may declarately monothest one to your storm water management program. The Agency has also pravided a list of permit multifications and a summory of responses to comments received by the Agency.

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

Should you lisve any questions or comments regarding this latter, please contact Melissa Parrote of Cathy Demeroukas of my sraft'or (217) 782-0618 or at the above address.

Sincerely, Alan Keller, P.E.

Maringer, Pering Spation Division of Water Poiluban Connel

5 місточецко закумая ман цазан

### General NPDES Permit No. ILR40

Ulinnis Environmental Protocilon Agency OMsion of Water Poliction Central 1621 Norff Grand Ecst P.C. Box 16276 Springficic, Time's 62764-9276

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit For Discharges from Bmall Nunicipal Separate Storm Sever Systems

Expiration Base: February 28, 2021

Insue Cate: Petrovey IR 2016.

Effective Date: March 1, 2018.

In complete with the provisions of the lithous Environmential Protocian Act, the fill was Parlation Control Bower Lithous and Regulations (36 III Artm. Code: Sublide C. Chapter Litions the Circon Water Act. the following diag: excess may be eathorized by the second presented as to the conditions herein:

Discharges of only storm vatientical small man blog separate storm seven systems (VSAs), we detreed end tentert terein. Storm vater means storm water runsifilishere met runoff, and surface runoff and dreinege.

Reactiving watcuss: Discharges may be authorized to any surface water of the States

To receive authorization to deacharge under this general service text by operator must submit a Podeo of MonthNO ) as deace teader Part If of the teaching the throat Environmental Proved on Agency (Throis EPA). Authorization, Pigranuss, All body (alley area) clude ecopy of this servic

Alan Keller, P.E. Manaçar, Perfek Section Disision of Water Pollution Commit-

NFUESTIC IC INFORMATION SAVES IN 1983-16 Care

### CONTENTS OF GENERAL PERMIT ILLING

PARTI.	COVERAGE UNDER CENTRAL PERMIT ILR40
PARTIL.	NOTICE OF INTENT (NOR) PROMENTS
PARTIII.	SPECIAL CONDITIONS
PARTIN	STORY WATER MANAGEMENT PROGRAMS
PART V	MONITORING DESCRIPTING, AND REPORTING.
PART V .	DEFINITIONS AND ACTIONYMYS
АТТАСНЬ	ENTH, STANDAUL LONG LONG

### PART I. COVERAGE UNDER GEVERAL VERWITTLAGS

### A. 👘 Permit Area

the permit covers at lareas of the Elate of Illinois.

### Digibility.

- This permit authorizes elseharges of stores water from Misteries delined in 40 CFR 122.86 (b)/18) as designated for permit
  authorizations pursuant to 40 CFR 122.92.
- This permit authorizes the following unvalue market representations have been determined in a to be conversity in computers of pollutories to a particular and i MSM applying for otverage uncon this permit.
  - Weier line and line hydrop) Bushing.
  - Landscapp Lingelion water,
  - Fix up ground eaters -
  - Scurd eder Hill alon,
  - Pauper ground water,
  - Elscharges i on potoble value sources, reacheing weste water discharges from water suppy freetment plentaj.
  - Foundal on drains,
  - Air conditioning conversely,
  - Imgation water, (exception wastewater Inigation).
  - Bofings,
  - Water here crawl space ournes.
  - Fealing drains.
  - Sigm sever cleaning work,
  - Melanimo novid al residential canvosning.
  - Fouline counter building waardown which thesing use detergents,
  - Howe from ripenan hapitals and weilands.
  - Zoe their each proceed proceed as the rest of the second se
  - Fesitual sincer wash water, -
  - Discretiges or times from the tighting activities.
  - Bootioninated water revenue distances, and
  - Vavament washvaters where splits or locks of tax contracements magning singlye not poourred (utilises all splitse material time been removed).
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C Initiations on Goverage

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- Storm value decharges (nellare mostliwith don stor): ealer or storm were responded with industrial activity unless most discriminges are
  - In compliance with a separate NPDEE point, or
  - kantiled by entire stop large eith Part (E.2 of dis perm).
- Biom realise disclosing softwar the Agency deformines are not appropriately reversed by the general point. This determination may include discharges identified in Part 1.3.2 or that introduce new or increased policitant loading that may be e significant contribution of pathcares to the receiving waters.
- Elsens weter deatherges mixing receiving value specified under 36 (h. Adm. (Sone A08, (05))) (5).
- 4. The following num-strum webs discharges are prohibited by this pennish concrete and wastewater from washout of currents to following an appropriate control, dryvall compound, weateween trum wethout and cleanout of studes, seen, form ratease use curing compounds and other construction materials. Late, not, in other pollutants used in varies and other construction materials. Late, not, in other pollutants used in varies and other construction materials. Late, not, in other pollutants used in varies and other construction materials. Late, not, in other pollutants used in varies and other construction materials. Late, not, in other pollutants used in varies and a still equipment approximate united and other construction materials. Late, not, in other pollutants used in varies and equipment approximate united and the pollutant that could raises or tend to cause water pollution.
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- Subsidie Nation minimized (NO ) in accordance with the requirements of Pert (Losing on NO) for in provided by the Agenty (or a photocopy thereb);
- 2. Submit enset NO. In accordance = In Pan II within 30 days nille change in the operator of the addition of a new operator.
- 2. Unders notified by the Agency to the Costnary, an WSA carrier scarniting a complete NCH in accordance with the requestered of the permitted by the Agency to the Costnary, and WSA carrier scarniting a complete NCH in accordance with the requestered of the permitted days after the date that the NCH is received. Author setum withe by letter and induced a copy of the permit withe Agency tray dary coverage under this permit and require scarnities of an application for an individual NPDES permit based on a review of the NCH or other into mation.

### PART & NUTRICE OF INTENT (NOD REGLADEMENTS)

- A. DeadStea for Amiltoning
  - If we MS4 was automatically designated all dev40 (3+11-127-03(a)(1) to obtain ptermit coverage, then you were required to submit an NCL or apply for an individue, permit, by Merch 10, 2003.
  - 8. If an MS4 has covarage under Depresence general partitifor stam water deathery as from small MS4s, you must renow you porm i payofage ta'dea the cent. Unless previously submitted for this general cert if, you must renow ADI within 90 days of the offective date of the original date of the relaxed general certricitor storm water user argue time emptities by for NPDE6 period cover argue time emptities and to oppy with any now provide a loss of the effective date of the opportunities and to oppy with any now provide and the upper time empty with any now provide an user argue time empty with a loss of the effective date of the period and the opportunities of the NPDE5 period.
  - If an WM is designated in writing by Lineia EFA once: 45 CHA 172 (32/2) (2) during the form of this general partic, then you are repured to submit an NOL within 180 days of such units;
  - WS4s are not provible all warrantemitting an MOI alter established deed uses for MAI with metrics. If a fait MOI & submitted, your abitrarization is unly fin instances that esturiation pormit coverage in granted. I tiltoits EPA reserves the right to take appropriate animatement actions against WE4s that have not submitted at mety NOI.
- Dements of Notice of Intern.

Discharce: Seaking coverage under his permit shall submit the line's MSA kabiters. The NOTestal be signed it essentence with Standard Countries 11 of this permit and shall include all of the following interstation:

The strept address, county, and the televiste and longitude of the municipal silication which the notification is submitted;

#### Fage 4

### General NPDES Permit No. ILR40

- 2 The name address, and telephone number of the quanturie) (any the MOI for permit doverage and the name, address, interformer, most, and email address of the parameter interpretation and compliance with the aSA Permit; and
- 3 The name and segment identification of the receiver constants), whether any segments(s) is a larger set inspersed on the maximum segments approved list pursuant to Ecclion 358(s) of the Clean Water Actionary currently approved list pursuant to Ecclion 358(s) of the Clean Water Actionary currently approved list pursuant to Ecclion 358(s) of the Clean Water Actionary currently approved list pursuant to Ecclion 358(s) of the Clean Water Actionary currently approved list pursuant to Ecclion 358(s) of the Clean Water Actionary currently approved list pursuant to Ecclion 358(s) of the Clean Water Actionary currently approved list pursuant to Ecclion 358(s) of the Clean Water Actionary currently approved list pursuant. The most recent structure water to the may be found at <u>pursuant water and structure</u> system water <u>in all herrory currently approved lists are your and the system unit</u> at <u>introdice and structure water and structure at a provide structure water and structure at a provide structure at a provide</u>
- The following shall be provided as an eligibility for the NOU.
  - A dwamption of the past management problems (BMPs) to be implemented and the measurable goals for each of the shum water minimum control measures in paragraph IV. B. of this period designed in reduce the discharge of pollutents to the measurement practicable;
  - b. The result and year in which you implemented any BMPs of diverse maximum control measures, and the monith and verin which you will start and U/Fy implement any new minimum control measures or indicate the frequency of the sector.
  - For easiling parmitiess, moving adequate into match or just least on on any hMRe from previous NOIs that could do the inclemented, and
  - Identification rise forst qualitying program, or any polote shall be unspress if you,
- For waiting parameters, certication that sides the permittee has instemented recessory BMPs of the size in must cannot investee.
- C. All required information for the KD) shall be submitted decodorcedy and manifold in the role energy addresses.

thusis Errammentel Protector Agency Division of Water Policy on Contro Pennil Section Post Office Roy 19975 Springlish, Illion A99761-8976

eperma <u>From permit X. Bingle (cov</u>

D. Sharad Lisepone billings.

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### PART IS SPECIAL CONDITIONS

- The Ferminee's discharges, along or in control relief or entrols, shall not coupp property but at a sintexer many applicable water que by standard out not in 25 III. Adv., Gode (112).
- 0 If there is existence indicating that the atom mater rischarges authorized by this planet cause, or new the respondble potential to cause or consider to a violation of wave que ity standards, you may be required to obtain an introductual permit or an alignmetic general for an alignmetic different limitations and decrements.
- C. If a TMCL electron or watershed managements at is approved to any watershed management (plan includes recurrence) part includes recurrence processors of a stand water classes program to encoming whether the TMCL or watershed management (plan includes recurrence) program to encoming the TMCL or watershed management (plan includes recurrence) program to encoming the TMCL or watershed management (plan water classified management) program to encoming the TMCL or watershed management (plan water classified management) program to encoming the TMCL or watershed in an approximation water classified management (plan with a standard recurrence) program to the Agency of the TMCL or watershed management (plan expressed). Where a TMCL or watershed management program to provide a program to the permittee music or watershed management (plan expressed). Where a TMCL or watershed management program, the permittee music
  - Defensive whether the approved TMDL is for a politizant feely to be from: in errors water discharges from your MSA.
  - A Setemane whether the TMDL includes a polynomial waste toad affectation (WLA) or other performance requirements, specifically for starts waste discharge from your 2004.
  - Determine whether the TMPU addresses a floe regime likely to occur turing periods of storm water discharge.
  - Alterite determinations above have been media with it is round that your MEA must implement operate W. A provisions of the TMPL, assess whether the Will As are being met through implementation of as sting storm water control measures of it additional control measures are necessary.

- Boournantal control resources convertely being implemented or blanted to be implemented to comply with TwDL was a text allocation(s). Also induce a solution of implementation for all planted controls. Document the calculations or other cylicates that shows that the rWL4 with texter.
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   WLAS or 7.6 or quality standards are being met.
- For additional individual second or eliminative general perchanges implementation of wells our spectra equilibrium general perchanges of the individual or atemative general perchanges of the provisions of the individual or atemative general perchanges and suppressed if a considerable of entities. I MEL intermetion may be found at <u>"http://www.coa.sect.it.or.we.coa.sect.it.or</u>
- D If the politicities performs any device institution can be use in contribute to a violation of an applicable State device measures when every sense of a state of the performance o
- E. <u>Authorization</u>. General or operators must error treatment NOUs accordance with the requirements of this parmit or an application, for an individual NEDES Parmit to be authorized to discharge under this General Form I. Authorization, if are the will be by tetter and includes a copy of this Permit. Upon review man M(3) the Unois EFA may convious powerage under this permit eral requires submitted or application for an individual NEDES.
  - <u>Automate Système</u>t un d'Expred Ge<u>neral Permi</u>: Occept as provided in IILE 2 Eclow, etcat dis Giverne Permit excises the conditions of the permit environment every non-invectorit the cartics) of the following.
    - 152 days after the new General Percifyie ressure;
    - The Pennitee summary Works of Tempetion (NOT) and that notice is approved by Tissue EPA;
    - The Permittee is subtraced for coverage under an IndMduci point, or the received or reissued Derend Permit;
    - d. The Parmitee's epsilosion for an individual permit for a discharge of NGLK/ coverage under the renewed on wagged. Canadal Permit e denies by the Those EPA or
    - Bit not 1: 49 earlies a formal permit decision not to rende or ressue this General Permit The Ference Permit shall be automatedly estimately by continued after such formal permit decisions.
  - <u>11 Indo Eespohn</u>
    - a If the permittee wishes to continue an optivity vigulated by this General formal, the permittee must apply for permit coverage before the depiration of the contributed way can index second spectric in [11]. [1] above,
    - b. If the point lice copplication decordance with the processors of UEC2 alabeve, the conditions of this General Parent strake continue in full kace and allocation the processors in 8, UCS 100/16-66 until the Uncle EPA matrices a final dataset runt must on the application or NOT.
    - Blanderd Constron 9 Al Altechment Hits rol applicable to this General Ferlin.
- F The Agency may require any terson as horized to else to ge by this plannit to apply to an indian elter an indiate any require any terson as horized below general beam in all interview of the NPDES general beam it. Any interview parson may used on the Agency may require any owner or operator authorized to discharge under the remittion apply to take well on the program. The Agency may require any owner or operator authorized to discharge under the remittion apply to take well on the individual or dearnative general beam without involving these permits opply to take well on the individual or dearnative general beam without involving these permits opply to take well on the individual or dearnative general beam without involving these permits opply to take well on the individual or dearnative dearnative involving these permits opply to take well on the individual or dearnative to the effective time of the individual individual permits and the effective time of the individual permits and the effective time of the application of the advice general permits the advice application applies to the individual permitse, noverage under this general permit shall automaticate the individual permitse, noverage under this general permit shall automaticate the individual permitse, noverage under this general permits that a species of the application application applies of the application application applies of the application of the application of
- Any water in operator subtraved by the permit may request to be excluded from the excernage of this permit by applying for an individual equivalence with the permit. The owner or operator shall submit all included equivalence with the requirements of 40 CFR 122.28. In the Agency. The request will be granted by so, log an individual permit or on allomative general polling in the feature classific equivalence of the request.

#### Poge 6

When an individual NPSES partial is issued to an owner or operator otherwise outpett to this permit, or the petter is approved for coverage under an diametry NPDES general permit, the spoil cability of this permit due individual NPSES permittee is automatically forminated on the issue data of the individual permit or the data of approval for coverage under the elemetry general permit or the data of the individual has been elemetry general permit or the data of approval for coverage under the elemetry general permit.

### PART IV. STORM WATER MANAGEMENT PROGRAMS

### A. Päigosementei

The particles must deverse, indement, and enforce a storm water (16/60eman) original developed to reduce the discharge of be latents from their MS4 in the maximum extent practicable. To protect water quality, and to setting the appropriate water quality requirements of the liten is limited in Control Board Pulos and Regulations (35-litt Aver, Conte, S4-thille C. Chapter 1) and the Coan Water Act. The parmittee solorm veter management program must include the maximum control measures described in act to Bio Water Act. The parmittee solorm veter management program must include the maximum control measures described in act to Bio this Period Board and the state of the count of the second maximum control measures described in act to Bio dist Period second participation of the count of the term of the term of the terms of the terms of the terms of the term of the term of the terms of the term of the terms of terms o

### Win must Curitral Measures.

The Binden an conscione reasons in the included in the permittee's story, well-consequent program any

Public Education and Consection Storm Water Indacis.

New permittees shall develop and indignent elements of their storm water stategyement rengram addressing the provisions tissu. Lature, Existing completes renewing overage under this pound shall maintain their strend programs addressing this Minimum Control Measure updeting and enhancing their storm water management programs as necessary to comply with the terms of the section

- a. Combute educational materials to the community or conduct equivalent nutreach activities about the impacts of atom water factors in each or example on each bodies and the saces that the audit clean take to reduce pollutance in storm water disclosure or example on the polarities and the saces that the polarities end effects on storm water disclosure or the polarities end effects or storm water disclosure or the polarities end effects or storm water disclosure or the polarities end effects or storm water disclosure or the polarities end effects or storm water disclosure or the polarities end effects or storm water disclosure or the polarities end effects or storm water disclosure or the polarities end effects or the polarities end effects. The polarities shall incomprise the to lowing into its education, insteaded, at a minimum.
  - Internation on effective polition prevention measures to minimize the discharge of polities its from prevent property and activities into the storm server system, on the following top to:
    - Storage and elspecial of fusion a brand similar materials used in the operation of on eaking from, vehicles and other equipment;
    - Use dispapoli selventa or detergentament in the buildoor washing of vohicles, für Sureares other property.
    - C. Paint and related discur-
    - D. Lawn and garder cere; and
    - E. Whith devicing meterial storage and , see
  - ii. Efformation etablic green introduct, reistrategies such as great reple, minigement, rein barreis, bioseales, permeable proing, dry wells, and permeable payornent that it mis reducet processes and check starm watch to erwast where it can be in itrated, evaporated or roused.
  - In information on the cenetits and costs of such strategies and provide guidance to the public on here to implement them.
- b Obline appropriate SMPs for the million measure and measurable goals for each SMP. These measures e goals must ensure the reduction of all of the millions of concern in the permittee's stand water discharges to the maximum extent practicable and
- Provide an elimentation of public education and cultrach BMF send researching rate. Report on this evaluation in the Annual Deport provident to Part V C 1.

### 2. Public Incluences/Perticipation

New countidees shall develop and implement distributes of drain storm water menagement program addressing the original index with a bited cellow. It staking permittees renewing coverage under the permittane timeintein current programs addressing the Kenim, m Control Measure, updating and collaboring their alconnexter menagement programs as notessary to comply with the terms of this section.

- At a minimum, comply with Sidle and local public oution requirements when implementing a public invariant's participation program.
- b. Define expropriate RML's torthysminimum control/measure and measureste greek integets UAP, which must ensure the resultant must of the policization of condom in the polimittee's story weiter destranges to the maximum extent precisedes.

- Encylog a minimum of one public moduling an quarky for the public to provide input as to indiadeducey of the permittee's MERI program. This requirement may be that a committee with ones part of a regular council or quark meeting;
- d. The permittee shall defilly environ transfit justice mean within its justicition and include operative patient inverses/participal on. Information or wronauments justice concerns may be found at <u>http://www.ech.gov/environmentaliumicu/</u>. The recomment may be met in conjunction with ones participal environmentalization.
- Envire an annual evolution of outple, involvements and recourable goals. Report on the even of ing in the Annual Report pursuant to Pan W.C.1.

#### Lie Leastware Detection and El mination.

New semidlees shall develop and implement elements of their storm water management program addressing the provisions taled televy. Exercing parmittees renewing obviolage under this countril shall maintain their or motip ograms addressing the Minim, m Countel Measure, undefing and enhancing their storm value management magnatus as necessary to comply with the sums of this section.

- Develops implement, and phicrosip ogram is detect and eliminete NichtschropSiphs or dischokass isto drepermittees, emell MS1;
- b. Develops in ot already completed, a storm sweer system map, showing include in of all outlets and the names and incestion of all waters that receive discharges incents is <u>Costing pormities</u>. One visual coverage uncertain permit shall posted being contracted by include any modifications to the sever system.
- It is the exert allowable understate original law, prehind, through ordinance, or other, equilately mechanism, non-start writer discharges into the permittee's such server system and implement appropriate a longerent procedures and extend. Including philorecable requirements for the prompt reporting to the MBA of all relevance, and a and other incompted discharges to the separate eleministics to system, and a program to vesperuite encourse reports in a firrely manner.
- d Develop and implement a plan to detect and attracts non-storm water disatral cas, ne using lengel dumping, to the system;
- merm public employees, busil tesses, and the general public of hexards accordates with hepatidest erges and improper disposal of waste and the requirements and mechanisms for recording ouch discharges;
- Address the categories of numerours water rischarges fisted in Social 15.2 only digan sterijty fram as significant com/build of politients to your small MS4 (discharges or flows from instituting activates are used from the cheatra pranibition against reasons were and need only be addressed where they are identified as a grifteent sources of politions to waters of the United Stategy;
- g. DoTre appropriate Bkille for the minimum control relation and measurable grade to each BMP. These measurable goals must an une the rest. strong of all of the pollulance of concernity your storm water closerarges to the maximum exerciprestreade;
- In Conduct period a respections of the storm saven custate in rity weather conditions for detection of non-atom water costranges and legal cumping. The period second water birth is prioritization planter inspection of order is planting provide on outside with the greatest patential for non-arrow water decharges. Majo /high priority outfails what he mapected at least annually, and
- Provide an extruel evaluation of their description and elimination BWPs and measurable goals. Recenter their evaluation in the Annual Pepert constant to Part V.C.1.
- 4 Construction Sile Struct Weter Supply Control

New remarkees shall develop and important elements of their starm value management program submaking the provisions listed helow. Existing permittees rendering cowarege under the permit shall maintain their current programs addressing this Minimum Control Measure, updating ond external generations welen management programs as renaresely to comply with the terms of this socion.

2. Develop, implement and enforce opposition is used on hiterije in any storm water uncil to the permittee elemet MS4. From construction potal es that restult in a lend memory of greater that or adjust to an environment of storm water discharges from construction ectivity distingting test that one acro must be included in your program in that construct on activity is part of a longer common plan of developments or sele that would statut one acro more or more or more or traction activity is permittee elements.

All a minimum, inc permittee must develop and upplement the following:

- An protrance or other regulatory mediatism to require ensure and vacaness controls as well as sanctions to ensure compliance, to the extent allowable these state or locatilew,
- I. Erasion and Bed mon. Controls The permittee shall assure that construction erast two wey treating the storm water program require the construction size control/parative to carry plant to any install, and membra the two endors being and sectional controls to minimize the electrologic of patients. At a minimum such controls method estimated, installed and matrixing to:
  - $\Lambda_{\rm e}$  . Control starm water values and velocity within the site to minimize each error  $m_{
    m e}$
  - B. Control storm vision discharges, ne using suit, paak flow relax and total storm easier volume, to minimize prostorial pullets and to minimize downstream channel and ensure hank error on;
  - Win miss the amount of soil exposed during consultation activity;
  - Unimize the disaubance of sleep slopes;
  - E Win mize sediment elseharges from the sits. The davige, instellation and mentaneous element ension and sediment controls must address leads is such as to amout 1, hequency, internative and controls precipitation, the nature of resulting storm water runoff, and solveitor acter stice, including the range of an transfer ease expected to be present on the site.
  - F. Provide and molification traversible for Six during submark since the end of the sequence during statement of the second methods and maximize score were continued on, unless interesting and
  - Whimize soll composition and pressive repselt, unless releasible.
- II. Requirements for occustuation site sparators to do that or prelativit consistent water discharges that would include consiste and wastewater from washout of controls a fundace manageous en appropriate random (, drywell compound, wastewater from washout and clean out of controls, or includes and wastewater from washout and clean out of controls, or includes and space of a space of the construction material washout and clean out of controls, or includes and equipment operation and manageous, so provide and equipment operations and mentary new strength or other construction materials, fuels, clist, or other policitations, see in the end equipment operation and mentary new strength or other construction and other generations, its or other policitation are split or other releases, meny cliner policitation (her could cause or torid to cause water policitan).
- M Require all regulated constructions take to have a stand exterper interpretation play interpretations of Part IV of MPDEB control. No. ILB10, including management: practices, reprint so and other provisions at least as protective as the regulatements of taking in the filmout Writern Menual, 2014. In as amended including green infrost upper least octable and practices e;
- Procedures for site plan reviews which incorporate comments in int potential water guality imports and site plan review of ind violations construction also plane by the permittee to ensure tons storing with food sectment and error of so that equivariants;
- Plocedures for receiptive disease densition of information with mitted by the public and
- vit. Statispattice and enforcement of ortheade provisions,
- L. Define appropriate BMPs for this minimum antitol measure and measurable goals for each BMP. These measure the goals must ensure the reduction of effort the poliutarity of concern in your court water discharges to the mean numerican estent practicals a
- c. Frovide an ormula evaluation of construction site strem easter control EMPs and recommanic goals in RobAnnual Report purchanges Part V.C.1.
- 5. Post-Guistifuldion Spirm Werer Management in New Sevelopment and Federalepment.

New combines a ball develop and implement elements of their storm webs, manage that programs addressing the antimeters taken is the antimeters in this Minimum. Control Measure, updating and enhancing their stalls, water transgement around its recovery, incomply, with the terms of this section.

### General NPDES Permit No. (LR40)

- a. Consider implement, and enforce a program to address error mominize the volume and pollute alload of since water mobilities increased for new development and receively ment that increases that an equal to crease projects less than the activities part of a larger common plan of development or sole or that have been easily the point of a larger common plan of development or sole or that have been easily and receively and receively ment or sole or that have been easily into the point of a larger common plan of development or sole or that have been easily ment in protect water quality, the sectoring into the point there's small kt64 when the MS1's jurisolational control. The permittee envoyed motion water receives water quality and reduce the deduce of polynamics is the maximum extent practicable. In addition, each permittee environment extent practicable, in addition, each permittee environment extent practicable. The permittee are taken to valid each of project, the mean moment extended by the public.
- 2. Develop and/or premises stategies which include a containation of structural and/or non-structural BM incorporate for all property and writer the permises's jurisdiction for all new covarianment and redevelopment that data big exterition or equal to the science of a minimum). That will reduce the discharge of online the and the volume and volume and volume the volume and volume to the discharge of online the and the volume and volume and volume to volume the volume of the discharge of online the volume and volume and volume to volume the volume and volume to the discharge of online the volume and volume and volume to volume the volume of the volume of the discharge of the discharge of online the volume and volume and volume to volume the volume of the discharge of the discharge of online the volume of the discharge of the volume of volume of the volume of volume of volume of volume of volume of the volume of the volume of volume of the volume of volume o
  - Presentation of the rat, ratio attracts of coveregoest sizes, including natural storage and information character place;
  - Prevaluation of easting natural streams, citizenesis, and divine teams;
  - iii. Minimizatim of new Impervicus surfaces;
  - is. Consequence of alorm water to open vegetabled downless,
  - Construction of structures that provide both quantity and quality control, with structures serving multiple sites bring preterable in those serving individual sites, and
  - Considuation of structures that provide only quentity control, with structures serving multiple stee heing preforable. To three serving ind violatistics.
- If a permittee requires now or additional approach of any development, redevaluation, mean project construction, replacement in retain on existing dave quest allow, in other land disturbing dativity covered under this Part, the permittee allow require the person responsible for the variation rever op a long form operation error mean tenence blan including the subspace of one or more of the subspace devalues in Part. V 5.6 b, of this permit.
- d Cevelop and implement a program to monose the volume of storm water runoit and policients from public highways, already matter parking tols, and skiewates (and nameds) through the use of Styles that element in combination result in physical, thermical, or biological of lutant material restriction. Increased infilmation, exeptimal spiratory, and resso of storm water. The program shall no use, but not negligible to the tolk wing claration.
  - c. Annual Training for all MS4 were represented on an age of are directly involved in (or who retain others who charage on are idirectly involved in the motive menterance repair, to represented by public surfaces in Convert green infrastructure online involved retaining techniques applicable to such projection and.
  - II. Annual Training for ell conjuctors retained to markage or each null routins maintanance, repair or septement of public surfaces in coursel green infrastructure or low impact design training to their antiployave in projects which no use green infrastructure or low impact cas yn fertnerses.
- Developend or plement all program to monoton the volume of storm watch runolitance not itente from existing privotaty maned developed property that constantial storm water to the MS4 within the MS4 juristicitional control. Such program must be documented and may content the tell owing elements.
  - U. Bourco identification Statistics en inventory of storm water and policitaria discharged to the MSA.
  - - Education on green inhostructure Birth;
    - Evaluation of existing load control techniques to determine the twentility of potiation control reliables,
    - Evaluation of extrang flood control techniques to determine paramiel imports and effects due to climate refranger.
    - D. Indemantation of enhanced controls for special events expected to generate sign figure polition (larve, pervalue, performances);
    - E. Implementation of appropriate membranes programs, (including maintenance expression, for studiural profile on control devices or systems);
    - F. Management of past skiller and tertilizers; and
    - G. Based deering in largeted areas

### General NPDEB Permit No. ILR40

- Initial prior practices should not be implemented in any of the following circumstances.
  - Areaselites where vehicle fushing antifar maintenance mean.
  - Areastative with shallow bod ock which allow in oversent of only lends into the groundware.
  - is. Assessment near Keral Reduces;
  - is. Assessing where contaminants in so i or groundeater could be motolized by initial on of storm water.
  - An exvites within a delineated source water protect or ereator is an electric King expension supply where the potential to enulradiction of pull, lights, that the groundwater Calabia. In known on an area to relate protection may be found es.

In pullwave approximation water and index and

vi. Analysis within 400 rest of a community water supply we fill there is not a well-bad protection definition area or within 200 rest of a private water supply well. Information we have material may be found as:

<u>. Michael en austateut us (estangiour exeterin (en him)</u>

- g. Develop and http://www.wricentimence.mr.other.regulatory mechanism to andrease pretomytorization runoff from new developmentance redevelopment projects, public surfaces, and existing developed property as set forth server to the ensure a levelop turder state or user two.
- b. Require diregulated construction retexts have post-construction management elements investor exceed the requirements of Part M.D.2.1 of MPCES permit No. 1. Bit0 including management practices, controls, and other provisions at least as protective as the requirements contained in the most recent version of the thomas (Atten Man, et. 2014).
- Ensuid adequate lang-term new show and maintenance of BidPa.
- Defite appropriate BMI to for this minimum control module and measurable graterine with BMP. These measurable gents must ensure the reduction, of either politicities of concent in your element water flattenges to the maximum estima predicable.
- k Within S years of the atlastive date of the permit, the permitted mast variable and implement a propess to assess the water quality influence in the design of all new and calsing flood menacurant projects that are associated with the permittee of the descharger of the design of all new and calsing flood menacurant projects that are associated with the permittee of the descharger of the descharger of all new and calsing flood menacurant projects that are associated with the permittee of the descharger of the descharger of all new and calsing flood menacurant projects that are associated with the permittee of the descharger of the
- Provide an onitivel evaluation of anal-construction storm water management Bibline and measureable goals in the Annual Report pursuant to Part VLD 1
- 5 Printion Prevention/Bood Housek-eping to Minispet Operations.

New permitizes shall down op and unplement elements of their storm water statiogeneent angrest actives ang the provisions lissed be two. Existing permittees net even ynownage under this permit shall montain their current programs addressing this Win must Control Meesure, Bodwing and anhancing their storm water management usugests as recessery to comply with the teams of this section.

- Develop and implement on operation and mainler encaping smithal induces on annual isology contracted to unmerget shell and contractors and is designed to prevent and reduce the discharge of podulants to the medimum event predicable.
- b. Follution Provention-The participation and the grupt install, implement, and maintal real factive pollution prevention measures to minimize the discharge of pollutents non-installed properties, infrastructure, and spendtons. At a minimum, such measures must be use great, meteried, implemented and momented to.
  - I Win mize the discrarge of pollutents from expiriment and verticle washing, wheel weak water, and night washing waters. Wash waters must be treated in a sectional basis of allochoice control that preventes equivalent on both treatment provide discharge;
  - ii Alternite the exposure of building materials, building analysis, construction wastes, trash, landscape meterole, forthater, pesificiaes, herbicides, chan issi storage tenks, delang material storage tasks, delangests, san tary waste, and other materials present on the site to precisive on and to storm water;
  - iii Measure the decirange of pollularits from spills and leader and implement or emical spill and leadepreciation and response procedures; and

- 14. Provide regular induced on all numerical atom water management BMPs. Bedde on assessment induces, the pomitice shall determine in equivalent regimerical interactor mass. Test an induced ry in order in error, regime structural integrity, proper function, and instanting thesite of structural standards water. Hereisan, end integrity is proven to measure the completed externel end to the bits allow to proven to measure the completed externel end to the bits allow to proven to mease the completed externel end to the bits allow to proven to mease the completed externel end to the bits allow to proven to mease the contract end to the standard end of the standard externel end to the standard externel end of the standard externel externel end of the standard externel externel end of the standard externel externe
- C Detoing material must be stored in a permeasent interrporary storage structure processing, terping members it leads the permittee, new permanent detoing material electronic times shall be constructed within two years of the effective detwol the permittee, new permanent detoing material electrony when structures shall be constructed within two years of the effective detwol the permit. Storage structures or stuckples shall be integrated by the Permittee, new permanent detoing material electrony when structures shall be constructed within two years of the effective detwol the permit. Storage structures or stuckples shall be integrated by the electrony integrated by the storage structures or stuckples and the whole prevent the stockples of odd og to dedug elevation the whole prevent from the stockples by provent carry elevation and the whole prevent the stockples by provent any elevation dedug elevation detoing to dedug elevations to material and the storest indoors to provent any disc to ge of such characters within the storest indoors to provent any disc to ge of such characters within the storest indoors to provent any disc to ge of such characters within the storest indoors to provent any disc to ge of such characters within the storest indoors to provent any disc to ge of such characters within the storest indoors to provent.
- Using training moterials inclusive eventable from USI 144, the State of Hindls, or other experiant use, the permittee's program must include an rual exployee training moment and reduce training water pollution from extinates with a permittee's and open space maintenance. There is the training moment and reduce training of storage yards, must observe, remaining material torage handling and use or reactives, new construction and land distributes, and storm water system material torage fracting and use or reactives, new construction and land distributes, and storm water system maintenance or accuracy for disposal of simpley debris and open being in realized in the permittee's provide the permittee's storage fractions. In the permittee's permittee's provide the permittee's permittee's provide the permittee's provide the permittee's per
- Define appropriate BMPs for this primiting measure and measures of peaks to goals to seen BMP. These measurable goals must ansure the recides on all stretche-primiting of conserning our state water discharges to the maximum system practicable.
- Provide an annual two dation of pollution unwant notigo of housekeeping for municipal quarkars and many register goals. In the Annual Report pursuent to Part 9.331.
- C. Guallying State, County, or Local Program.

If an existing qualifying local program requires a semiffee to implement oppion more of the minimum control measures of Part IV.B. above, the permission may follow that couldying emgram's requirements rather they dia requirements of Part IV.D. above. A qualifying-backprogram is a local, county, or state munimpel storm water management, program is a local, econy, or state munimpel storm water management, program is a local, county, or state munimpel storm water management, program is a local, econy que riverg local programs that permission interval to follow due to specified in the symplement of the specified in the specified in

- Sharing Responsibility.
  - mpicmentation of one or more minimum control measures may be shared with each energy on the entity may fully take over the control measure. A permittee may rely on another entry only if.
    - $\sim$  . The other waity implements the control measure; .
    - Ls The periodian control measure, or component of that measure is at level se stringent as the sol esponding period requirement;
- E. Paviewing and Opdating Storm Water Management Programs
  - Storn Water Management Program Rovbes. The planning used partner an annual review of its Brom Water Management Aregram in conjunction with preparation of the annual report required under Part V.S. The permittee visations are identified and report a plan for complying with any charges to new provelors in this point, or in any State or isdenet regulations. The pointline must also include to issue on the plan for complying with all applicable TMCL Hepping; or extension management of arks), information on MRUs may be found be.
    - <u>Hildwawy</u> opasiala<u>jiya watanin di</u>
  - Storm Wele: Varagement Program Update- The pseudosemety modify its Storm Water Management Program during the Net of the permit in accordance with the following procedures:
    - Musifications exting (but not subtracting of replacine) companients, retrients for requirements to the Brann Weier Metergement Program may be made all any time upon written notification to the Agency;

### **General NPDES Permit No. ILR40**

- b. Workitzations replacing on inelfective or infectible BMP specificant text in the Otom Water Stanagement Plog activity on Atematic BMP may be requested at only take. Unuser device the Agency modil cations proposed in accordance with the Clore to tests below shall be coorded approved and may be implemented 60 days from submitted of the unprest. If the request is deviced, with sector the participant tests are proposed for the permittee's modification requests must find device the following:
  - An energy is of why the BMP is ineffective or intervice (matricing root) options;
  - 0 Expectations on the billoodvances of the replacement 6xt<sup>(1)</sup> and
  - An enalysis of why the replacement BMP is expected to entreme the goals of the BMP to be replaced.
- Modification of any ordinances relative to the starm water memoryment program provided the updated entinance star wastine stringent as the provisions slipulated in this permit, and
- Mathlication requests or notifications must be made in writing and signed in accordance with Standard Condition (Left Altechnication) (L
- 2. Samm Valler Variagement Program Updates Required by the Aderby, "Valuational one requested by the Agency must be made in writing real forth the time schedule for permittees to dove by the modifications, and other permittees the appointity to propose allevative program motifications to most the abjective of the requested modification. All modifications required by the Permitting Authority will be reade in accordance with 40 CFR 124-64. All Child Larger as eporphiate 40 CFR 122-62. The Agency may require modifications to the Storm Water Management Program as respective:
  - Achirese impacts on receiving water cuality causes, or contributed to, hy destraines from the MS4;
  - Include more siningent requirements modespary to carry by with new federal or State statutory or regulatory regulatory regulatory and an environments;
  - Include such other conditions deemocraee/assary by the Agency is somply with the goals and requirements of the Clean Water Act

#### BARTY, MOMTORING, RECORDECEMIR, AND REPORTING.

#### Menitoring

The point it is investigated in planamic among ong and assessment program to avaluate the effectiveness of the GMPs being In promotive to end the planamic end when query impacts within 150 days of the effective date of the permit. The program should be taskeed to the size and chevatiensites of the MS4 and the wate should the permittee should permit the permit the formation of the MS4 and the taskeed to the size and chevatiensites of the MS4 and the wate should the permittee should permit the permit the MS4 being and exception and provide the MS4 and the WS4 and the wate should be permittee should be reader and the annual Report. By not later into 150 days after the effective date of the permit, the phone the should initiate an evaluation of its econe water program. The plan form to taking/system of the described in the Annual Report. Evaluation and/or mentioning reputies shall be provided in the Annual Report. The mentioning and assessment program may include evaluation of HMPs, and/or precision water quality monitoring as lobered:

- An evaluation of SMFs based on estimated effectiveness from publicities research accompanied by an inventory of the number and location of BMFs, implemented as given of the permittee's program, and an estimate of pollutoni radiation resulting from the BMFs, or
- Methoding the effectiveness of stunn water entities measures and progress lowerds the MB4's gualarus regions in more of the following.
  - a. MB4 permitases serving a population of less than 25,000 may conduct viscal asservations of the score eater declarge documenting color, odor, clarity, Poaling so les, satisfy subjected aside, team of shoen, or referent-viscal unitations of store water pollulian; or
  - b. MG4 permittees may evaluate storm water quely and impacts using one or more of the lobowing mailness;
    - I Instream monitoring to their ignored level hydrotopice) unit code segment in the MS4 ereat. Namitating environment to the MS4 of a minimum querierly monitoring of receiving values upstation and connectivem of the MS4 disc argument the designation the designation the designation the designation of the might.
    - Mensuing pallulant concentrations over disp.
    - IL Sedment metaling.
    - 4. Shur Hann extensive relivation monitoring. Short-form sampling at the patients of retiments, side image areas to intendity mater quality issues and potential storm water impacts, and may help in ranking areas for implementation of original so forces simultant early entropy the WSA to help characterize the geographical distribution of pollutant sources.

### **General NPDES Permit No. ILR40**

- 2. Steepert in monitoring igh value resources such as two mming beyones, shell's a bass, or ingreprioris includes could water specific monitoring to essees the statue of use support. Similarly, maker is greprioris publicant environs or impaired water bodies with contaminated equalits sed transis, or cooling steering characterized by an essees in particular to public or do not water bodies with a degraded to be population do not be monitored to essees imparted threatening property or a stream read with a degraded to be population does not be monitored to essees imparted to commit water decharges and/or to identify in powerments that result from the implementation of Blanks.
- vi Assessing mysical/tablet characteristica auch as streem henk eresten caused by storm water decharges.
- vi Oute Mirstherge moniforing,
- Summahart-Incused monitoring. Monitor to patients in atom water produced in different crass of the MS4. Environmental identity which politically are present to shown water from incussful croze, currence a areas, and the dential croze.
- ic EM \* permittence monitoring. Monitoring of individual EMP performance to provide a direct measure of the pollogical remotion efficiency of these key computents us e MSR program.
- 2. Collaborative vetershed-scalo monitoring. The permittee may procee to work collaboratively with other permittee any process to work collaboratively with other program that excesses the water quality of the exter outleest entitle sources of outlets. Such program a must include elements which assess into impoch of the permittee sources of scharges and/or the elements of the permittee sources of scharges and/or the elements of the permittee sources of scharges and/or the elements of the permittee sources of scharges and/or the elements of the permittee sources of scharges and/or the elements of the permittee sources of scharges and/or the elements of the permittee sources of scharges and/or the elements of the permittee sources of the permittee sources of the scharges and/or the elements of the permittee sources of the scharges and/or the elements of the permittee sources of the scharges and/or the elements of the permittee sources of the scharges and/or the elements of the permittee sources of the scharges and/or the elements of the permittee sources of the scharges and/or the elements of the scharges and/or the elements of the permittee sources of the scharges and/or the elements of the scharges of the sch
- 2. If entrent vale: grafty moniforing under 2: above is performed, the moniforing of storm water declarages and exclusive moniforing intendector gauge storm water inputs shall be performed within 45 hous of a precipitence event grafter loan or equal to one quarter induiting 24-hour period. As a minimum, analysis of electron water declarages or emblem water quality shall be base to a 24-hour period. As a minimum, analysis of electron water declarages or emblem water declarages or emblem water quality shall be base to electronic induiting 24-hour period. As a minimum, analysis of electron water declarages or emblem water declarages or emblem water declarages or emblem water quality shall be base in electronic provide states appended patient end of electronic provides and graves. In eddition, monitoring phase in patient provides any electronic phase in the state of electronic for end of electronic provides and electronic provide

### B. Réductiveping.

The period are many seed records required by this permit for diverse effective systemation of this permit. Records to selept under this Period use the permittee's NOL storm watch management plan, and reports, and monitoring data. All records are the kept braits or locally available and shall be made beecsable to the Agency for review at the time of an on-site inspection. Harapi as othere as prevated in this permit, permittees must submit records in the Agency only what specifically requested in do so. Permittees must post their NOL show watch management or grant plan, and annual reports on the permittee marks. The semittees must post their NOL show watch management or grant plan, and annual reports on the permittee marks. The semittees must make the records available to the public to measure in excertaines with the dop leable freedom of intermation. As requires a member of the public to provide advance coses in excertaines with the dop leable freedom of intermation. Act requirements. Show sever maps may be withely for excerts.

### December 2

The permittee must submit Annual Reports to the Agency by the first day of Julie for each year theil the permit is in effect. If the permittee maintains a website, a dupy of the Annual Report shall be posted on the website by the first day of June of each year. Each Report shall cover the period from Merch of the previous year, through Merch of the content year. Annual Reports shall be maintained on the permitteer tester to for elevities of a years. The Report must include:

- An essessment of the approximateness and effortiveness of the permittee endentities BMPs and progress the classifiering the status your of returning the classinge of politicants it the maximum extent practicable (MEP), and the permittee is denoted measurable group on the minimum control revenues;
- The status of compliance efficient it continues, inducing a description of each insidence of non-storp lance with the going, and the permittee's plan for ophi//ing compliance with a timetine of astions follow on to be taken.
- 3. Results of information collected end environd, including monitoring data, deary damagine reporting period: -
- A summary of the elements of the section of the contract plane to content the first type ling of the first reporting cycle, industing you implementation activitie;
- 5 A change in any identified BMPs or invasurable years (see apply to the program electronic)
- 6 Notice that the permitten is rely up on another government early to set aly some of the permit obligations of applicating.
- Provide an upper effective commany of any BMP or adaptive memory effective destructed or in premember provident to any approved IMDL or a femate valier quelty companient study. Use the results of your maximum program to assess whether the WLA or other performance requirements for storm water discharges from your MS4 we being met, and

### General NPDES Permit No. #LR40

0 If a qualifying local probability with expertise point for the signal of the second seco

The Annual Reports shall be submitted to the introducting office and ontail addresses.

Hindle Environmental Protection Agency Division of Water Pollation Cantrol Compliance Assurance Section Marie pol Annual Inspection Depart 1021 North Brand Avenue East F.O. Box 19275 Springlic d. Illinois (627/4-vente

### enametarn.ohtso@discis.gev

### PART VL. DEFINITIONS AND AGRONYES

Al definitions command in Section 312 of the Olean Water Act, 40 CFR 122, and 05 this farm. Code 306 shall apply to this bernit and are into policited horsen by reference. Encromyenience, simplified explanations of some regulatory/statulory definitions have develop or ideal. In the overtile is a conflict, the definition friend on the statute of regulation takes predictions.

Best Management Precifices (BMPs) means structural or numericalized softwise, schedules of activities, underskow of araphoes, the memory provedures, and other monogentian precises to prevent or reduce the pollution of values of the state. Thiles also include treatment requirements, operating procedures, and precises to control ranoth, splilege or leave, studge preventer repose, or crainage from the meterical alongs.

EMP is an acrohym for "Base Monegoment Investment".

OFFI is an actuary in for "Corts or Pederal Regulations."

Control Measure as used in this pain's relevante any Key, Menagement Practice or Citier method used in preven or reduce storm water runoit on the discharge of publicante to waters in the State.

GWA of The Actioneeus the Clean Weter Act (formerly referred to as the Federal Water Polition Connel Actor Federal Water Polition Control Act Amendments of 1972) Public 92:500. os arrended Publit 195-9(17, Public 96-976, Public 96-463 and Publit 197-117, 93-LISC, 1251 E Trang.

Discharge when used without a qualitie, refere to discharge rills apticiant as defined at 40 GPD (192.9).

Emitronmental Uneffice (5J) means the "a revealenced and meaningful involvement of all peoples yerdene mease, color institutal origin, or norme with respect to the development, or plementation, and enforcement of any reliminated teve, regulations, and policies

Emimoratental Justice And means a community with a low-income or discrementally population greater than twice it exterior assesses to the editional system and the community if the owner one of missing population relates that twice the statewest excerning the community if the owner one of missing population relates that twice the statewest excerning the community of the owner of the community of the community of the community of the community of the owner of the community of the community.

Rood wonageness project means any project which is intended to comput, reduce or mainteening stream hows and associate damage. This may also use whe projecte das great to mimic or interactive methods in the waterway.

General infrastructure means well weather management approaches and technologies treatilise rentence or mimis the palural hydrologies Gys o processes of infibilities, weather requirement and reuse. Green infrastructure expressions currently in use include green roublithese and tree boxes miningeneans, wegetelert evolves, podari wetanada, infibieter planteral parts and perfects o pavements, parture parting systems, due weak, vegetelert medien strips, referented on intragetelerum, rein harrest, contents, and projection and endoercement of non-tagetelerum buffers and theoryteme

that Connection means one mere made conveyance connecting an itfoli discharge directly in a minimpal separate starm sower.

llént blecharge e defined al 40 CFR 122.96(b)(2) and allere to any discharge to a municipal seconde storm server instan composed entre y di storm water, excelo discrieryes entrementioner en NPDES permit (aller than the XTRUS permitter discharges from the MSA) and discharges resulting from the lighting activities.

NEP is an acronym for . Maximum Extent Prediceline Trhe technology/based discharge standard for Monopel Separate Storn Seven Systems to reduce politikan an istrim materialecharges that was established by CMA (Action/103rp) - A elseussion of MEP estit appleastor small MSAs is found statted of H 172.31

WS4 is an actorym for Municipal Separate Sports Sever System Land is used to refer to a Urage. Mechany or Smoll Municipal Separate Storm Sever System (e.g. The Datas MS4"). The term is used to refer to other the system operated by a single entity of a group of systems within an area that are operated by multiple entities (e.g. the Poisson MS4 includes MS4s operated by the sty of Houston, the Texas Department of Transportation (in a Hame County Placed Control Statis), Hamis County, and others). Municipal Separate Blarm Semicris defined at 40 (2411122 %)(b)(5) and/means 0.000x0/a feely system intronveyances (including soads with divinage systems, municipal Streets, celeb heaving, celeb, gutters, divinage systems, municipal Streets, celeb heaving, celeb, divinage systems, municipal Streets, celeb, heaving, second by a State, city, lowing, borough, borough, celeb, divination, association, priorited budy (severed by on p. reveal to State, law) having an existence of the severe state state in the severe state of severes and solve state state state state state. The second celebrary celebrary state states are stated at a law such as a severed strict. Food control district or downed intervents, prism to celebrary and the severe and bonnest industrial argon systems, prism and celebrary and the severe and bonnest industrial argon systems. Second celebrary and the severe and bonnest industrial argon systems are set of celebrary and the severe state state severe state states are subsorted industrial argon system. Second celebrary and the CWA that State severes at the United States. (I) Designed or used for celebrary of celebrary states (A) Which is not a combined severe, and which is not a Publicity Gened Treatment Works (FGTW) as defined at AH 127.1.127.2.

MOHS on accordantion Multice of Intern To he covered by this point; and is the measurement used to register "for opvorage under a generalpoint).

MPDES is an econym for "National Poliutor" Electropy Electropy Electropy (Alexandre)

Cuffaillis defined at 40 CFR 122.29(4) (4) and means a point source as defined by 40 CFR 122.2 white nominaters a municipal separate starm sower discharges to material the United States and does not not dealed upon correspondence moneying two municipal separate pipes funnels of Other consequences which connect segments of the same shaam or other waters of the United States and o a used to convey waters of the Doubed States.

Owner or Operator is detrived at 10 CFR 132 2 and month if a verse or operator of any "facility gradifying" subject to regulation under the NEDES program.

Permitting Authority means the Lineis EPA.

Point Source is defined at 40.000 P178.3 and means only discomable, confined and discrete conveyance, including but not in texto, any pipe, duch obtained, turnel, condult well disorcio fissure, contenter, roking einste, concentrated animal fooding operation territitieed ejecollection system, weevel or other loading craft from efficit publicants are no may be discharged. This form dues not inducte return flows from migrated egns, thus or agricultural storm waters uncil.

Pollutants of Concern means pollutants identified at a TM-R, waste load allocation (WLA) or on the Section 303(c) list for the recoiving eater and any of the pollutants for which wells monitoring is required in Part VA, of the parter.

Gualifying Local Program is dented at 60 GRA 122.34(c) and means a local, state, in initiating objects form valor meneument, program that in powers, at a minimum, the relevant requirements of per-graph (b) of Section 182.84.

Small Bluncipal Separate Blank Bower Bystemia delinent et 40 (CFR 182.85/bit16) and releas to all separate atom severs that are owned or operated by the Linke States, a State bury, rely, frem, berough, county, por shudsing, according erother public body (prease by or pursuant to Brate (sig) item) deving prediction over deposal of sowage, industrial second in a mother public body (prease special districts under Blate law such as a seven deposal of sowage, industrial second in similar endy, or an indian urbe or an autorized indian libbal organization, or a device deposal of sovage menagement egency under Sext or 208 of the GWX that discharges to waters of the Linic States, but is not detered and approved menagement egency under Sext or 208 of the GWX that discharges to waters of the Linic States, but is not detered as "angle" or "medium" multicipal separate atom water systems in the use systems similar to separate states even any time or sound pablies, such as systems at making target large hospital or origin to indiana, and highways and other theory giftered is the term cross not include separate states are not by discrete areas, such as indianal neu-

Storm Water is defined at 40 CFR 132.26(b) (13) and means do in weter functil snownell runoff, Area surface numblend drainage.

Blarm Water Mitnegeneent Program (SIMMP) refers to a comprehensive suggest in manage the quality of storm water discharges from S'é name qual repersive storm sever system

BWMP is an ecosymillar. Strem Weter Management Program."

TMDL is an excuryer for Trive Meetinger Daily Load."

Waters (also released to as waters of the state of received water) is defined at Section 301,440 of Table 25. Subside C. Cherter Lat (he Binnix Policiton Control Board Regulations and means all economistions of water, surface and underground demost, and other a public and private for parts thereof, which a C Abelly or period y within, flow through, or bords, upon the State of Finders escept that soverals of d treatment works are not no used excess as greated yment oneo: provided, that nothing terration and without the use of nature or cinerwise protected waters as any and in maintening works provided, that nothing terration when shell authorize the use of nature or cinerwise protected waters as any and in the impair works provided in the stream earst on under Agency permit is a lowable.

"You "and "Your" as used in this point is intended to refer in the permittee the operator, on the discharger as the context indicatos and their party's responsibilities (e.g., the only, the contrast free food control district, the u.S. An Force, etc.).

#### Atlactment H

#### Standard Conditions

#### Delinione

Actions and the Units Environmental Protocilon Actions (Lister an American

Agency means the Illinois Environmental Protection Agency.

Board means the Iflice's Pointion Connel Beard.

Green Weiter Act Cormerty roferred to 25 the Federal Weiter Pott) on Comm\*Act Teans Public S0-500, as amended, 00 H S C (201 pb sets

NPDES (National Pollutie ) Declarge Himmyton System) means the national program for second, modifying, revolding and reliasona, lettrinaling, manifulning and errorting permits, and trapsling and philorolog previously and requirements, under Socilors 357, 452, 3na and 455 of the Steen Weter Ad

IREPA means the United States Environmental Protection Agency,

Delly Discharge moons disclose targe nile an internet sured during a calendar day a any Select period that reasonably represents the coloridal day for purposes of ventaling. For pollutants with imbaliants or pressed in units of masses the stally discharge" is calculated as the total mass of the pollutant discharges over the day. For pollutants with limitation's expressed in other units of measurements, the rule ly also a get is de caleted as the everyge measurement of the pollutant available day.

Meximum Delly Discharge Umkallon (daily measurar) means the Ingresi elimentie daily discharge.

Average Menthly Differing a Limitation (All stay everage) means the highest alrevable even (set in typic scharges over a calence mean), calculated as the scan of will stay discharges measured calendar mental scientist by the number of dat y discharges measured during the meaning.

Average Weekhy Discharge Limitation (7 day average) means the highest allowable average of daily it excerges over a calendar work, to outsted as the stantish with why it echarges measured during a calendar weak divided by the number of daily discharges measured during the weak.

**East Management Problems (BWPs) means achievings of adjuttes,** prohibitions of practices, meanternance procedures, and other management practices to prevention reduce the polition of waters of Pto Blate. BWPs also include (resument requirements, operating problems), and previous to controliptori site runoil, spillage or testo, studye or waters respond, or chanage from raw meaning storage.

Alique) means a sample of specific environmensed to make op a rotal. composite semple.

Grab Sample means an includual seconds of at least 100 m III fors solicited at a randomly-subscript time over a period not exceeding taminutes.

24-Flour Composite Securite neeres a nombination of all case S securite efforces on et less: ICD millions, collected et pendito intervale during the operating routs of effacting routes 24-hourpened. 8-Rour Composite Sample means a containation of all least 8 sample related of all least 100 millions, reflected at periodic mismails furing the operating focus of a facility over an 0-hour period.

Flow Proportional Composite Sample means a complication of sample aliquits of at lease 100 millitiers oblicated appared of tensils such that divier the lime means between path a loud of the whome of each oliquit is proportioned in a thereby stream Low at the tension sampling of the lotal stream time since the collection of the previous aliquit.

- 10 Duty to comply. The permitted must comply with all considers of this permit. Any permitted must complete example, the analysis of the permitted of the pe
- (P) Duly to recipply. If the permittee weights to portifice on activity regulated by this point after the expiration data of the permit the participant weights for and obtain a new permit. If the permitted statistics a concern application as required by the Agency no later than 140 mays once to the expiration data, the permit shall continue in 0.1 know and effect until the final Agency decision on the evaluation have been made.
- (2) Need to half or reduce oblivity not a defense. If shall not see a release to: a permittee in an extraorderic paget multiple we been necessary to help to welfure the permitted advely interfer to the near completion with the constituting of this second.
- (i) Only to mitigate. The planning shall take all reasonable steps to minimize an ensuremy customing in violation of this plannin which has a reasonable isolatory of adversely affecting numartipath or the environment.
- (S) Proper specific n and maintanance. The particles are tay all times imperty operate and maintain attractives and systems of treatment and control (and related apparamented) which are used left or used by the permittee to estimate compliance with contributes of or the permittee to estimate compliance with contributes of other permittees, exemplate compliance with contributes of other permittees, exemplate compliance with contributes of other permittees, exemplate contributes and contributes of other permittees, exemplate contributes and process controls, including compliance (as thy assumption procedures. This procession requires the operation of back-up, or auditory facilities, or some experiments only when necessary to achieve compliance with the conditions of the permit.
- (8) Parmit actions. This permit may be modified, revoked and re-ssued, or ferminated to balance by the Agency pursuant to 40 DER 182.05 and 40 CFR 192.00. The ming of a request by the permittee for a permit modification, revocation endroissuence, or termination, or a nucli second of planned stranges or anticipated noncompliance, does not every any point consilient.
- (7) Property rights. This occur it share not convey any property rights of any cont, or any exclusion privates.
- (8) Duty to provide information. The pointized shall a week to the Agency within a reasonable dine, any name atom which the Agency may request to descript a reliable manage extension monthing, revolving the reasonable informating this point; a redetermine compliance, with the name). The complete shall a sefurnish to the Agency upon request, applies of records required in the kept by the period.
- (8) Inspection and antry. The permittee shall allow an authorized receivents) velocitie Agency & USEPA (archeorgan authorized contractor acting as a representative miller Agency at USEPA). Upon the presentation of credentatis and other accuracies as may be required by type, to:
  - (a) Enter querrities permittee's premises where a regulaterit

Applies of addivity is located or conducted, to where reports must be kept uncoughed conditions of this permit;

- (b) Have bacess to and copy, at researching firmer, any reports that must be kept under the conditions of july permit;
- (5) Inspecificili cocorrelate three environment equipment (no using mentioning and concert equipment), prestness or operations (equipment) and and in the permit; and
- (d) Sample or manifor at reasonable times, for the surgery of assuring pormit compliance, or as otherwise estimated by the Asi, any substances or parenteless of each end on the for.
- (10) Moniforing and records.
  - (a) Samples and measurements when for the country of monitoring shall be represented as a fire membrower activity.
  - (b) The permittee shall retain records of all menutaring information including all calibration and mentarianty reports, and all originalist pictual reports require the monitoring instrumentation, explain and reports required by this permit, and records of all data used to complete the application for this permit, for a second of all word 7 years from the date of table benchit, measurement report or application. Records material to the permittee's report or application. Records material to the permittee's report or application. Records material to the permittee's report of a period of all easilies are an extended to the period of all easilies (or an generation provide) of the Agency or USEPA at any time.
  - 16) Records of monitoring, information area tractantee.
    - (\*) The date, exact place, and time of gamping or measu emony.
    - (2) The individuality are parlorment the complete or measurements.
    - (8) The date(a) Analysise were permitten;
    - (4) The late is a state of the sector of the
    - (6) The original fact request or methods, seet, and
    - (6) The results of south analyses.
  - (5) Monitoring riski be executed according to test procedures approved under 40 CPF: Net 106, indees other test procedures care carectering in the servit. Where no less procedures and an 40 CPF? Part 136 has been approved, the Service and an 40 CPF? Part 136 has been approved, the Service carecteristic shall calibrate and provedures that calibrate and proform theorem and analytics of all monitoring and analytics instruments to all monitoring and analytics instruments.
- (11) Signalory requirement. All explications records on manufact submitted to the Agency shall be signed and contrivid.
  - (a) Application, All permit applications shall be signed and follows:
    - (1) For a corporation, by a principal executive offster of all loast the facel of view president or wrenten or position liabling events heapens help for the commental matters for the corporation.
    - (2) Fur a partnership or sole proprietorship: by a general partner in the preprietor, respectively, or
    - (b) For a municipality, State, Foce al. or other public agency: by other a principal associative officer municipal ranking elected official.
  - (b) Reports. All records prepared by permits, or other minimetion requested by the Agency shall be signed by a person described in ballagraph (of eruly a cuty anthorized representative of dist person waithout any yaphonzed op-csentative only 1;
    - (f) The entropy at a made in writing by a paracel recorded in paragraph (a); and

- (2) The Authorization assessment when an includual or a solution responsible for the overall operation of the lactify, from which the decharge originates, such as a stantic energy appendiculant or person of equivalent responsibility, and
- (3) The written authorization is submitted to the Agency.
- (c) Changes of Authorization. For authorization under the not imagen accurate bootase or different individue or present has response ify for the overal operation of the lattice, a new subtorization satisfying the requirements of (c) must be submitted to the Agency prior to or Agence with any reports, information, or applications to be signed by an authorized representative.
- (d) Certification. Any poisal signing a assument meter paragraph (a) Cr(b) of this section shall make the rollowing certification:

I definity under partiality of level to the noncoment and all attachments, were prepared under my direction of supervision in occurs area into a noncomercial to assure that qualified personnel propeny getter and evaluate the information submitted. Seven reimying, try of the person or persons are memory the rejetter, or these persons directly responsible for pertaining the intermetion. The information submittee as to the case of my indeviction and belief, the descention and complete. Large ways that there to a significant penaltice for submitting table information, necessing the presenting of the and interface the second penaltice for submitting table

- (12) Reporting requirements -
  - (\*) Pintoned bioinges. The permittee such type not certainly. Agency as soon as possible of any planned physical alterations of odditions to the permitted techty. Notice is required where.
    - The Electric or addition to a permitted toolity may most one of the outers in determining whether a fockity is a new source pervision in KOCER (25,28 (b) o)
    - 12) The abaration or arts then obtaining it can by change the nature or increases the quantity of pollutants discovery and the militation apples to pollutants which are subject refiner to affluent limitations in the period, norm orbitation requirements oursuant to 40 GFB 122 / S (5)(1).
    - (3) the electron or addition results in a significant change in the permittee's slategal use or deposed prectices, and such alteration addition, or thenge may [, sife the application of permit constitutes [by] grediffection of advance in the east represent, inducing notification of advanced use or rispresel sites not recorred curring the permit application process or not recorred curring the permit application.
  - (b) Anticipated noncompliance. The parmittee anel give advance notice to the Agency of any planned stanges in the permitted facility or articuly which may result in concernities as with permittenguinements.
  - (c) Transfers, This permit is not handleredie to any person except allot notice to the Agency.
  - (d) Compliance achedules. Peparis of compliance un noncompliance with only progress reporter on, interest and final requirements contented in any compliance cohocute of the planet shell be anticitied to tyter that 14 days following each extremule date.
  - Monitoring reports. Monitoring visual velocities reported at the intervals apacities in exchanging the permit.
    - (1) Kumimusyowaula musi be reparted on a Discharge -Wamtening Report (DMR).

- 12) If the permittee monitors any pollutant more treatmently than required by the point, using test provedures approved under 40 GFR 1.28 as eaepermetted to the permit, the moulta of this monitoring effective included in the calculation and reparsing at the risk submitted in the CMR.
- (3) Securations for all limitations which require avayaging of measurements shall tailize an arithmetic mean unless all online specified by the Agency in two permit.
- (!) Twenty-four hour reporting. The parenties shall report any noncompliance, which may exchange insight on the environment. Any information shall be provided orally within 24 hours from the time the parentiles becomes avera of the charmonics. A written submitted becomes avera of the charmonics. A written submitted becomes avera of the charmonics. A written submitted becomes avera of the charmonics are the complete becomes avera of the charmonics of the interaction of the contained becomes avera of the charmonic case. The written extends becomes avera of the charmonic case. The written extends on the parentic becomes avera of the charmonic case. The written extends on the parent is parent of the contained writting exact dates and the contained of noncompliance, including exact dates and the contained becomes averaged, the anticipated the first avalated to contained writting taken or planted to induce, allowing what he includes a information writting to be information with the report of the information of the following what he includes a information when the provided as information when the information when the provide as information when the model becomes when the provide acting the information when the provide acting t
  - Any Unantic put at traceous which exceeds any efficient limitation is the permit.
  - (2) Ary upper while assault any ettinent initiation in the permit.
  - (3) Molation of a measurum daily rischarge limitation for any of the pollutania constiny the Agency in the particle any pollutani which may endarger health on the Covingment.

The Agency may we verifie whilen report on a case by case basis. If the kinel report has been reported within 24-, ourse

- (4) Other concompliance. The permitted shall report all instances of concompliance correported toder paragraphic (17) 10(17); or 11), at the time monitoring reports even submitted. The reports shall contain the information twist to paragraph (12) (7).
- (\*) Other Information. Where its parmittee records aware that it failed to submit any relevant facts in a permit application to automated incorrect information in a permit application cross environment to the Agency, it shall promptly submit such facts or information.

### (12) — Вурана,

iai Delinitoria.

- Bypass means the interface diversion of wealgh shearts from any ponion of a treatment text by,
- (2) Severe properly carriage means subsigned offysical demace to purpletry carriage to the accument leaders which carriage them to become observable, in entertained and permanent less of result rearrance which can reasonably be expected uncount if the spectre of a cypose. Beyone properly demage does not mean excitence loss caused by charge in production.
- (5) Bypass not exceeding finite one. The permittee may allow any bypass to use or entropy to be an exceeded by the prime fill allow to estimate the exceeded by the provision of the two exceeded compensations are not subject to the provisions of personables (1816) and (18)(d).
- (al Partice,
  - (1) Afficialized by asso. If the complete knows in advance of the next for a bypass. I shall submit promotion i possible at easilized days before the cate of the bypass.
  - Unantic parec bypass. The permittee shall submit unlike of en moent operation bypass as required to

paragraph (12)(h (24-hair mitte)).

- Prohibition of Lypson.
- Bypass is problem in end the Agency may take of proceeduation against a permittee for type gaunicss.
  - Bypicas was uneventitable to prevent loss of title, paramet inputy, or severe property contage,
  - II.) There over no beauties allow strong to the bypess, or draw the row of encodary maying in facilities, whether all universaries werea, or mail variance strong normal periods of equipment developed inter-contribution, go equipment developed backware equipment should have been established in the ensures of exercised engineering, organish to prevent a hyperscalight operating developed periods of equipment downling increasing managements; and
  - T.10 permittee extensived mitrage ga required under personaph (10)(a).
- (2) The Agency stay agarbaic an articlipatent hypege, after considering its subscree alterns, in the Agency determines, that it will owned the three constitions issed association samagraph (12)(rt)(1).
- (14) Upset,

igt.

- (2) Defaultary. It peet means an exceptional insident in which there is content on electrony noncompliance with hadroxizgy haved permit effuent limitations because of hadroxizgy haved permit effuent limitations because of hadroxize heyrard the resource/o control of the pointitiae. An upper: cheen rt, no upe hendering lance to the optimitate. An upper: cheen rt, no upe hendering lance to the optimitate. An upper: cheen rt, no upe hendering lance to the optimitate. An upper: cheen rt, no upe hendering lance to the optimitate. An upper: cheen rt, no upe hendering lance to the optimitate ity operational error, improperty designed, traditional hadrows method up to the improper optimitate. An up method result of optimitate in a method of the optimitate is a method result of optimitate in a method of the optimitate.
- (L) Ethert of an oppert. An upper constitutes on all masked determs is an action prought for nonsolarpliance with each technology reason provid. offluent limitations if the requirements of paragraph (14(1c)) and mat. Non determination made during administrative review of claims instrumentation made during administrative review of claims instruments for mode during administrative review of claims instruments for noncompliance. Is Shat administrative without for noncompliance. Is Shat administrative action without to judicid review.
- (v) Conditions needssam for a demonstration of mass. A complete who wishes to establish the effirmative neterage of upset shall demonstrate, surrigh property signed confort portfoods upsetting logs, in other relevant cylicate that:
  - All oddet occurrent end that the permittee can identify the cause(a) of the uppet;
  - (2) The permitted tast by was as the time being property operated and
  - (a) The complete submitted routed of the upper available in paragraph (12)(5(2) (24-but mutice)
  - (4) The permittee complied with any remettymeasures metrics under paragraph (4).
- (d) Burden et orapit, to any entertainent proceeding the permittee sweekee to extent while catumence of an upper has the burden of proof.
- (15) Transfer of permits Pormits may be transferred by monthcallon of automatic upriate as described testas.
  - (a) T ansions by modificence. Except as provided in paragraph (b), a paint i may be bandlered by the parameter to a new source or operator only if the permit has been modified or revoked and related parameter. An GFN 192,62 (b) (2), or a minor modification neets parameter in 40 GFR 122,63 (d), to a minor modification neets parameter and into polational of an experimental as may be needed any index the Chern Watter Art.
  - (.4) Automatic transfers. As an alternative to the stera under paragraph (a), any APDES permit may be automatically heristened to a new permittee (;)

- The current permittee notifies the figurary all occurs S0 days in ecvence of the proposed transfer data;
- (2) The nature nutrices a written agreement between the eventing and new perturbers containing a specifice date for transfer or permit responsibility, procease and foldility between the easting and new permittees, and
- (2) The Agency does not notify the existing pointnee. And the processed new permittee of its international in the second receiver the permit. If this notice is not received, the transitions effective on the date specified in the agreement.
- (15) All menule/luring, commental mining and silveralized dischargers must outly the Agency as soon as they know an rave reason to terferee:
  - (1) That any existivit tent arctured in twif occur which would result in the discharge of any issis pollular; identified under Section 302 of the Clean Weter Ant which is not limited in the politik, it is a discussive will exceed the highest of the following restriction inverse.
    - Designation mempring periter (100.193);
    - (2) Two builders incompressive: Net (200 up/) for actions and accylonithin they builded micrograms per little (500 up/) int 2 4-distrophenol and for 5 metrik-4,6 distrophenol; and one of ligram per liter (1 mg/) for entities y.
    - (3) Five (a) times the maximum concentration value equated for their patiolant in the NFDES pomitequivation or
    - (4) The level exists lated by the Agency in this point is.
  - (b) This, Jusy have here in or superit to begin to use an inequivatione as an intermediate or final product or systematic any inserption between the was not reported in a su-MPCES permit application.
- (17) All Fusikely Dwnerd Treatment Works (PCTWs) must provide adaptate notice to the Agency of the following:
  - (a) Any new introduction of pollutable into their FCTW from an incided declarage which would be subject to Sections sum or SUS of the Count Water Act Millwore directly discharging drase and Janje; and
  - (b) Any substantial change in the volume or character miproblem is being introduced into the POTW Ly a source unmolecing policitans, me the POTW at the time miuscience of the permit.
  - Inv Tor purposes of this paragraph, adequate noise energy induce information on () the cushing and guaranty of entropy introduced months POTVs, and is) ary anticipated impact of the phange of the cushing in good is milet used to obscharged from the POTVs.
- (19) If the permit is issued to a particulty reveal or publicly regulated. I Columnit works, the permittee shall require any industrial user of such means and early to comply with federal requirements concerning:
  - (a) Lawr changes pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing matricinal 3%
  - (?) Fools pollularit officient: standards and prefragment standards pursuant to Section 307 of the Lagen Wigher Act, and
  - (0) Dependent, manifering and antry porecentre Section 388 clthe Olean Weiter Art

- (19) If an applicable standard of limitation' is prenatigated under Section 70116/(2005) and (D), 204/b)(2), or 302/a)(2) and that without standard of imitation is mark stringer. There ary efficient limitations in the permit, or contraits a politiciant antihument in the permit, the permit shall be promptly modified or nerokard, exclure secent is somermite that efficient standard or instation.
- (A4) Any authorization to construct issued to the permittee purement in 25 80 Acrt. Code SDS.154 is terwise recorporated by relevance as a condition of this points.
- (21) the permittee shall not (10):2 any laber elements, representation or pertitionion in any opplication, report performinendo survent submitted to the Agency or the 1525 We upper driving the maintained under this permit.
- (22) It is tower Wyter Act provides that any parsion or a violateet a permit randition (violementing Boations 301, 202, 308, 007, 308, 010, or 405 of the Clean Water Act is subject to a creat permit with the exceed \$25,000 per day of such variation. Any peremitting the exceed \$25,000 per day of such variations. Any peremitting Sections 901, 302, 308, 307, 308, 313 or 415 m the Clean Weter Act is subject to a find of not less than \$2,910 user more than \$25,000 per day of violation, or be impressioned for not mare than one year, or both. Additional periods for violating these sections of the Clean

Weise Clean Water Act provides for mounting mode sectors of the Determination Weise Private Identified in 40 CPR 122,41 (a)(2) and (2). The Disar Water Act provides for 20 a recommended to the teacher

- (22) The Disen Water Act provides that any person who telefore temperativity, or knowingly renders inaccurate any monitoring denote or method required to be manualed under the sermiterial, upon contraction, be outlaned by a free of retimering \$20,000, or by mprisonment for its normalized by a free of retimering temperative energy in temperative energy is a consistent of a person is for a subletant committee energy involves that convertion of a person is for a subletant committee energy involves of not more than \$20,000 per day of variation, or by mprisonment of not more than \$20,000 per day of variation, or by mprisonment of not more than \$4 seeing or task.
- 124) The Clean Water Act provides that any period why knowingly makes any folse steament, representation, or certification in any scend or other continent autompted or required to be maintained under the permit, including monitoring reports or replate of complement in non-compliance abait, upon conviction, be parameter by a line of not more than S10,000 per violation, or by incomment to not more than 6 monitor per violation, or by seen.
- [23] Collected charing sinces, studge, and other solids shall be disposed of it such a memory as to prevent entry of these wastes (church) from the wastes) into waters of the State. The proper sufficience on tervinith disposal shall be obtained iter time. Adartey and is incorporated as part hereoi by reference.
- [26] O case of combins helpigen these stands disordations and any other constitution individed in this permit, the other constituting street govern.
- (27) The permittee shall compty with, an orderson to the requirements of the permit, all applicative conversions of 25 H. Acro. Code. Subitio C. Bubble D. Subitive P, and all applicable orders of the Beard Sciency count with printstep on.
- (39) The provisions of the permit are severable, and if any provision of the permit on the application of any provision of the port of a help investo, the remaining provisions of this permit shell continue in the force and clicpt.

(Rev. 7-4 2010 Edr) -

## 4.5.A STORM SEWER SYSTEM MAP



## 4.5.B STORM SEWER OUTFALL PRIORITY MAP



## 4.5C COMMERCIAL/INDUSTRIAL PRIORITIES OUTFALL PRIORITY MAP



4.6A IDDE Program Protocols & Proceedures



Civil Engineers Surveyors Water Resources Engineers Water & Wastewater Engineers Construction Managers Environmental Scientists Landscape Architects Planners

Village of Hainesville MS4 Illicit Discharge Detection and Elimination (IDDE) Program Protocols & Procedures

### Task 1: MS4 Outfall Dry Weather Screenings & Source Tracking

The Village of Hainesville needs to have performed Dry Weather Screening events performed at specific outfalls by the end of March 2014 to meet the MS4 permit deadline. Manhard staff will conduct these outfall inspections during dry weather conditions. Dry weather conditions are defined as having a rainfall of less than 0.1 inches per day for at least 72 hours. Prior to any sampling visit, local rain gages will be checked to ensure that the conditions are appropriate for screening.

The field team will be responsible for the following screening, sampling, and data collection activities in the field:

- Making field observations (odor, color, record "no flow" if appropriate, etc.),
- Performing field screening at each of the outfall where potential illicit discharge is observed,
- Collecting grab samples of any suspected illicit discharge for lab analysis, and
- Source tracking to identify the source of the flow (if applicable).

### Task 1.1 – Outfall Inspections

Manhard staff will visit each of the Village's identified "priority" outfalls and will complete an inspection report detailing the results of the field visit. A physical photo will be taken that best represents the visual component of the outfall.

If no flow is observed during the outfall screening, the result will be recorded as "observed no dry weather flow."

If dry weather flow IS observed, visual observations will be recorded for the following:

- Flow depth
- Sheen
- Color

- Floatables
- Surfactant-type bubbling
- Turbidity

Odors

If flow is observed, but no illicit discharge is suspected, based on obvious field conditions (i.e. neighborhood sprinklers, slow draining detention pond, etc.), the result will be recorded on the detailing observed conditions and will be noted as "no illicit discharge".

Manhard Consulting, Ltd. 900 Woodlands Parkway • Vernon Hills, Illinois 60061 tel: (847) 634-5550 • fax: (847) 634-0095 • www.manhard.com ARIZONA • CALIFORNIA • COLORADO • GEORGIA • ILLINOIS • INDIANA • NEVADA tel: (770) 803-6300 • fax: (770) 803-0668 • www.manhard.com ARIZONA • CALIFORNIA • COLORADO • GEORGIA • ILLINOIS • INDIANA • NEVADA • VIRGINIA Ms. Barbara Seal January 20, 2010 Page 2 of 2

A running summary of inspections completed will be reported to The Village on a monthly basis.

### Task 1.2 – Field Testing & Source Tracking

If dry weather flow is observed, field equipment and/or portable test kits will be used to identify any suspicious constituents in the water. Portable meters such as the LaMotte SMART 3 Colorimeter Water Quality Analyzer will be utilized. The manufacturer's instructions will be followed when using these test kits and meters.

If the results from the field tests meet any of the below criteria, then an additional sample will be collected for lab analysis, and source tracking procedures will be undertaken:

- 1. pH less than 5.5 or greater than 8.5
- 2. Temperature dissimilar to ambient
- 3. Conductivity greater than 300 Φmho/cm
- 4. Any presence of fluoride or surfactants in the stormwater

If flow is observed, but no illicit discharge is suspected based on the parameters tested, the result will be recorded on the inspection form as "no illicit discharge".

Lab analysis will be requested for Fluoride or Surfactant if any presence is detected, on location, using the field kit. Fecal Coliform analysis will be recommended if 1) Conductivity >  $300 \Phi$ mho/cm, 2) surfactant detergent are detected, or 3) classic sewage odor.

All lab samples will be collected via grab samples, and samples will be delivered to McHenry Analytical Water Laboratory on the day of collection (within 6 hours of collection, due to fecal coliform having a 6-hour holding time) or frozen within that same time period.

Additionally, when suspicious illicit discharge it suspected, the flow will be followed from the location where it is first observed in an upstream direction along the conveyance system. For belowground systems, flow will be followed upstream from the outfall to the next manhole with a junction. The upstream assessment will be performed as far as possible to reasonably minimize the potential sources.

If the source cannot be directly traced (e.g. it disappears between manholes; the pipe, network, or channel terminates, etc.), field staff will inspect the contributing area draining to the last outfall observed with dry weather flow and record land use, type of operation, and/or any relevant information. Specific areas to include in the upstream inspection include:

- Gutters, catch-basins, and streets Check gutters between manholes for evidence of flows such as runoff from steam-cleaning operations, car washing, irrigation runoff, etc.
- Parking lots, garages, and behind buildings and warehouses Inspect these areas for evidence of dumping such as wet or stained pavement.

If initially unable to locate the source of the flow through field inspection, alternate sources will be considered, such as Illegal Industrial connections or new illicit connections to the system. Any potential enforcement actions will be reported to the Village for follow-up. The results of all source tracking will be immediately reported to the Village. Any outfalls requiring maintenance actions will be so noted, photographed, and reported to the Village with the monthly report. Outfalls chosen for monitoring are indicated on the Village's *Storm Sewer Outfall Priority Map* that is included as part of the Village's Stormwater Management Program Plan for the Village of Hainesville NPDES Permit.

4.6B Commercial/Industrial Inspection Program



Civil Engineers Surveyors Water Resources Engineers Water & Wastewater Engineers Construction Managers Environmental Scientists Landscape Architects Planners

Village of Hainesville Commercial/Industrial Inspection Program Program Protocols & Procedures

### **Task 1: Annual Inspections**

The Village of Hainesville is required to perform an annual inspection of commercial and industrial properties connecting to the Village's MS4. Manhard staff will conduct these outfall and connection inspections during dry and wet weather conditions as necessary to make appropriate determinations on illicit discharges or inappropriate connection(s). Dry weather conditions are defined as having a rainfall of less than 0.1 inches per day for at least 72 hours. For the basis of this report, wet weather screening will be considered any event not falling under dry weather screening. Prior to any sampling visit, staff will check local rain gages to verify which conditions govern. Manhard staff will conduct these business inspections during normal operating hours at each establishment.

The field team will be responsible for the following screening, sampling, and data collection activities in the field:

- Making field observations (odor, color, record "no flow" if appropriate, etc.),
- Performing field screening at each of the outfall where potential illicit discharge is observed,
- Collecting grab samples of any suspected illicit discharge for lab analysis (if necessary), and
- Source tracking to identify the source of the flow.

The following additional information will be detailed in regards to these locations:

The field team will be responsible for the following inspection and data collection activities in the field:

- Making field observations of type of business, materials stored, and storage practices
- Identifying potential sources of stormwater contamination, and
- Noting any BMP practices currently in place.

### Task 1.1 – Outfall & Pipe Connection Inspections

Manhard staff will visit individual points of connection to the Village's MS4 or pertinent outfalls and complete an inspection report detailing the results of the field visit. In addition, Manhard will complete an annual summary report of the locations inspected and documented violations (if any).

If no flow is observed during the outfall or connection screening, the result will be recorded as "no flow observed."

Manhard Consulting, Ltd. 900 Woodlands Parkway • Vernon Hills, Illinois 60061 tel: (847) 634-5550 • fax: (847) 634-0095 • www.manhard.com ARIZONA • CALIFORNIA • COLORADO • GEORGIA • ILLINOIS • INDIANA • NEVADA ARIZONA • CALIFORNIA • COLORADO • GEORGIA • ILLINOIS • INDIANA • NEVADA If dry weather flow IS observed, visual observations will be recorded for the following:

- Flow depth
- Sheen
- Color
- Odors

- Floatables
- Surfactant-type bubbling
- Turbidity
- If flow is observed, but no illicit discharge is suspected, based on obvious field conditions (i.e. neighborhood sprinklers, slow draining detention pond, etc.), the result will be recorded on the detailing observed conditions and will be noted as "no illicit discharge".

Manhard staff will visit each of the Village's identified businesses. The inspection will encompass:

- Business activities:
  - Animal Hospital
  - o Car Wash
  - o Concrete Plant
  - Auto Parts
  - o Pet Care
  - Septic Tank Pumper or Installer
  - o Tire Dealer

- Stone Product Manufacturer
- Hazardous Material Storage
- Asphalt Plant
- Recycler
- Printer
- o Sara Title III businesses
- Identification of existing permits and any past problems or violations,
- Storage materials and practices (Chemicals, oils, batteries, pesticides, fertilizers, etc.)
- Cleaning procedures,
- Spill cleanup procedures,
- Waste disposal procedures (solid and hazardous wastes), and
- Any BMP practices currently employed.

Site inspections will consist of a facility walk through and an interview with facility personnel where necessary. Materials storage areas will be identified, as well as potential areas of stormwater pollution and BMPs in place. Pictures may be used to document important aspects of a site inspection.

### Task 1.2 – Field Testing & Source Tracking

If flow is observed, field equipment and/or portable test kits will be used to identify any suspicious constituents in the water. Portable meters such as the LaMotte SMART 3 Colorimeter Water Quality Analyzer will be utilized. The manufacturer's instructions will be followed when using these test kits and meters.

If the results from the field tests meet any of the below criteria, then an additional sample will be collected for lab analysis, and source tracking procedures will be undertaken:

- 1. pH less than 5.5 or greater than 8.5
- 2. Temperature dissimilar to ambient
- 3. Conductivity greater than 300 Φmho/cm
- 4. Any presence of fluoride or surfactants in the stormwater

If flow is observed, but no illicit discharge is suspected based on the parameters tested, the result will be recorded on the inspection form as "no illicit discharge".

Lab analysis will be requested for Fluoride or Surfactant if any presence is detected, on location, using the field kit. Fecal Coliform analysis will be recommended if 1) Conductivity >  $300 \Phi$ mho/cm, 2) surfactant detergent are detected, or 3) classic sewage odor.

All lab samples will be collected via grab samples, and samples will be delivered to McHenry Analytical Water Laboratory on the day of collection (within 6 hours of collection, due to fecal coliform having a 6-hour holding time).

Additionally, when suspicious illicit discharge it suspected, the flow will be followed from the location where it is first observed in an upstream direction along the conveyance system. For belowground systems, flow will be followed upstream from the outfall (or connection point) to the next manhole with a junction. The upstream assessment will be performed as far as possible to reasonably minimize the potential sources. GPS will be used to maximum extent possible to document any key blind connections or illicit discharge locations.

If the source cannot be directly traced (e.g. it disappears between manholes; the pipe, network, or channel terminates, etc.), field staff will inspect the contributing area draining to the last outfall observed with dry weather flow and record land use, type of operation, and/or any relevant information. Specific areas to include in the upstream inspection include:

- Gutters, catch-basins, and streets Check gutters between manholes for evidence of flows such as runoff from steam-cleaning operations, car washing, irrigation runoff, etc.
- Parking lots, garages, and behind buildings and warehouses Inspect these areas for evidence of dumping such as wet or stained pavement.

After an inspection is complete, Manhard staff will translate the completed field notes and field inspection forms into electronic report documents for the Village's files. Any sketches will be scanned into jpg format. Both schematics and site photographs will be incorporated into the final report documents. The municipal and industrial connections and outfall locations for testing are indicated on the Village of Hainesville *Commercial/Industrial Connection and Outfall Location Map* that is included as part of the Village's Stormwater Management Program Plan for the Village of Hainesville NPDES Permit.

Reports will be entered digitally. Following completion of the reports, the final documents will be delivered both digitally, and in hardcopy, to the Village of Hainesville. All tasks will be fully completed by April 15, 2014.