



# Illinois Environmental Protection Agency

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

## Division of Water Pollution Control ANNUAL FACILITY INSPECTION REPORT

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### for NPDES Permit for Storm Water Discharges from Separate Storm Sewer Systems (MS4)

*This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. Complete each section of this report.*

Report Period: From March, 2016 To March, 2017

Permit No. ILR40

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

Name: Village of Carpentersville Mailing Address 1: 1200 L. W. Besinger Drive

Mailing Address 2: \_\_\_\_\_ County: Kane

City: Carpentersville State: IL Zip: 60110 Telephone: 224-293-1613

Contact Person: Kevin Gray, P.E., CFM Email Address: kgray@cville.org  
(Person responsible for Annual Report)

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

Village of Carpentersville

#### THE FOLLOWING ITEMS MUST BE ADDRESSED.

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

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

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

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

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

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

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

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

Kevin R Gray  
Owner Signature:

MAY 31, 2017  
Date:

Kevin Gray, P.E., CFM

Asst. Director of Public Works/Village

Printed Name:

Title:

EMAIL COMPLETED FORM TO:

or Mail to: ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
WATER POLLUTION CONTROL  
COMPLIANCE ASSURANCE SECTION #19  
1021 NORTH GRAND AVENUE EAST  
POST OFFICE BOX 19276  
SPRINGFIELD, ILLINOIS 62794-9276

**NPDES Phase II – Year 14 (March 2016- March 2017) Annual Update  
Village of Carpentersville, Kane County**

**Table of Contents**

**Part A. Changes to Best Management Practices..... A-1**

**Part B. Status of Compliance with Permit Conditions ..... B-1**

**Part C. Information and Data Collection Results..... C-1**

**Part D. Summary of Proposed Year 15 Stormwater Activities ..... D-1**

**Part E. Notice of Qualifying Local Program ..... E-1**

**Part F. Construction Projects Conducted During Year 14..... F-1**

## **Part A. Changes to Best Management Practices**

There were no changes in Year 14 to the Best Management Practices (BMPs) that were outlined in the NOI submitted to the IEPA on May 26<sup>th</sup>, 2016.

The Village has reviewed the Illinois Environmental Protection Agency's (IEPA) website for information regarding approved or ongoing Total Maximum Daily Load (TMDL) limits on Upper Fox River watershed and the tributary streams which the Municipal Separate Storm Sewer System (MS4) is tributary to. There are currently no TMDLs approved or ongoing, therefore no changes to the existing BMP's will be required to comply with a TMDL at this time.

The Village has reviewed Part V. Monitoring, Recordkeeping and Reporting of the General NPDES Permit ILR-40 and has begun an evaluation of BMPs based on the estimated effectiveness from published research. The Village will begin monitoring the pollutant reduction from the ongoing street sweeping program as well as the pollutant reductions from the detention basins and rain gardens within the MS4 service area. These calculations are being performed using the FOXRIP-SpreadsheetTool-MS4.xlsm provided by the Fox River Study Group. The Village also implemented approximately 9,000 linear feet of stream bank stabilization along Carpenter Creek that will be accounted for. The results from the monitoring will be provided to the Fox River Study Group which aims to reduce the pollutant loading to the Fox River.

## Part B. Status of Compliance with Permit Conditions

The status of BMPs and measurable goals performed in Year 14 are described below.

### 1. Public Education and Outreach

#### A.1 Distributed Paper Material

**Measurable Goals:** Include NPDES Phase II information in a Village wide newsletter and distribute it on an annual basis or provide educational pamphlets at the Village application counter.

**Status:** The Village has continued to publish and distribute newsletters with articles informing residents on stormwater related topics. In the Summer 2016 newsletter an update about the Carpenter Creek project was published, this project is a stream restoration that is highly visible to residents. Additionally, information about "Ways You Can Help Protect Our Water from Pollution" was included in this newsletter.

The Village has researched the existence of EJ areas within the MS4 using the <https://ejscreen.epa.gov/mapper/> tool and has determined that there are EJ areas within the MS4. According to the EPA mapper, portions of the Village are considered to be predominantly minority populations, low income areas and linguistically isolated. The Village is in the process of determining the best way to convey NPDES related information to these areas. The Village is researching options to reach a larger portion of the MS4 population.

The Village is currently in the process of locating a source of information regarding climate change. Some sources that are being considered are <http://www.globalchange.gov/climate-change> and <https://climate.nasa.gov/evidence/>. The link to the EPA's climate change section is currently unavailable; once it is available again a link to that site will be placed on the Villages webpage in Year 15.

#### A.6 Other Public Education

**Measurable Goals:** Village will continue to maintain and update Engineering Standards, details and development codes on the Village's website.

**Status:** The Village Municipal Code, Engineering Standards and details are available on Village's website. This will continue to increase developer and contractor awareness of stormwater protection requirements and BMPs and will be updated on an as-needed basis. Many construction projects have included the installation of drainage structures with "Dump no waste, drains to river" imprinted in the structure. Inclusion of this imprint in castings will be considered in a future standards update.

The Village also hosts in the Adopt-A-Highway program which has been maintained through Year 14 and new signs were installed around the Village promoting the program. The Village is also in the process of researching the creation of an Adopt-A-Stream program.

The Village constructed eight rain gardens in Carpenter Park and a 30' riparian buffer along Carpenter Creek in the park as a best management practice. These rain gardens and riparian buffer are highly visible to the public. Educational signs have been installed in Carpenter Park explaining the

purpose of the riparian buffer and native plantings that have been installed along the creek. This project was completed in the spring of 2016 and was awarded the Sustainable Project of the Year award by the Illinois Association for Floodplain and Stormwater Management (IAFSM).

The Village has also printed signs to put along roadways at stream crossings identifying the Stream names. This informs the public about nearby waterways and has been completed in coordination with the Jelkes Creek-Fox River Action Group.

### **Public Education and Outreach Evaluation**

The Village feels that the newsletter is very effective and the Adopt-A-Highway has been a great success. The website is a good tool for residents looking for specific information.

## **2. Public Participation/Involvement**

### **B.3 Stakeholder Meeting**

**Measurable Goals:** Village will participate in or host a local watershed group meeting in a municipal facility.

**Status:** The Village has been involved in the Jelkes Creek-Fox River Action Group. The Village has contributed to the group by making signs identifying stream crossings along roadways. The Village will coordinate with the group to host a meeting this upcoming year. The Village has also been an active participant in the Fox River Study Group. Village staff and Village representatives have attended a Fox River Study Group meeting within the past year. The meeting was hosted in the Kane County municipal center and was concerning NPDES monitoring and reporting requirements.

### **B.7 Village Board Meetings**

**Measurable Goals:** Village will conduct a public meeting or public hearing and devote time to discussing its stormwater management plan. The Village will meet its own requirements for conducting public meetings or hearings.

**Status:** The Village currently holds bi-weekly meetings that are open to the public. During a public comment period the residents have the opportunity to address the Board on issues relating to stormwater pollution and management. These meetings are televised on cable television. Trustee Don Burroway regularly discusses stormwater pollution and local watershed groups during his committee reports. On October 3<sup>rd</sup> he discussed the installation of stream crossing signs, retention pond improvements in Kimball Farms and maintenance along Tyler Creek.

### **Public Participation/Involvement Evaluation**

Trustee Don Burroway regularly discusses stormwater pollution, watershed group events and other related topics in public meetings. The Village feels that there is a good amount of information being presented to the public at these meetings.

### 3. Illicit Discharge Detection and Elimination

#### C.1 Storm Sewer Map Preparation

**Measurable Goals:** The Village will continue to maintain and update their digital storm sewer map. The map will be converted to a GIS based platform when funds/personnel become available.

**Status:** The Village currently has an AutoCAD based digital map of their storm sewer system. The map includes approximately 39 miles of mainline storm sewer, over 2,400 catch basins and inlets, and approximately 30 outfall locations. The map is updated annually as new storm sewers are discovered or constructed. The Village is looking for funding sources to convert the map into a GIS format. Until funding becomes available the Village plans on utilizing Google Earth to develop outfall data. In Year 14, four new drywells were added to the MS4, these have been added to the Village's AutoCAD atlas.

#### C.2 Regulatory Control Program

**Measurable Goals:** The Village will enforce an Illicit Discharge Detection and Elimination ordinance or similar code to prohibit non-storm water discharges into the MS4.

**Status:** The Village currently maintains and enforces Municipal Code, Section 13.04.300 which prohibits non-storm water discharges into the MS4. The Village also has a section of their Municipal Code (Section 13.20.100) which discusses penalties for violators. The Municipal Code will be updated on an as-needed basis.

#### C.3 Detection/Elimination Prioritization Plan

**Measurable Goals:** Implement the prioritization plan and update/modify, as needed.

**Status:** An implementation and prioritization plan has not yet been developed and the Village will make an effort to develop this in year thirteen. However, the Village Fire Department annually inspects all industrial, commercial, and retail business for chemical storage and required spill containment and protection. Certain businesses which deal with large amounts of chemicals are visited on a monthly basis. The Village requires permits for the storage and handling of hazardous materials. The Village will continue to inspect these high priority facilities for improper handling and disposal of hazardous materials and will update relevant municipal codes on an as-needed basis. Also, the Village has completed a 4-year sanitary sewer televising program to prioritize areas of sanitary sewer in need of lining. The Village will continue to line sewers as budget becomes available. A master plan is currently in being developed for the Old Town portion of Carpentersville. The plan will include more sanitary sewer lining.

Additionally, the Village Engineer has been developing a Standard Operating Procedure (SOP) for Drainage Maintenance. This SOP was completed in Year 13. High priority outfalls are identified in the SOP.

#### C.4 Illicit Discharge Tracing Procedures

**Measurable Goals:** Implement the Village's Tracing Procedures if necessary.

**Status:** Currently, the Village's Tracing Procedures include a member of Village staff responding to notification of a potential discharge. If a potential illicit discharge is found, the flow is followed upstream within the system until the source is located. Village staff may potentially use the Village's digital storm sewer map to more efficiently search for the source. The Village will continue to implement

the Tracing Procedures and will continue to update/modify the Procedures, as needed. In addition, the Village initiated a stream screening program in October 2011.

#### **C.5 Illicit Source Removal Procedures**

Measurable Goals: The Village will continue to implement the Source Removal Procedures.

Status: Currently, the Village works with property owners to help with any required permitting required in getting the illicit connection removed as quickly as possible. If the property owner is not willing to work with the Village to remove the source then the Village has Section 13.20.100 of their Municipal Code which allows for the violating parties to be fined. The Village has been and will continue to inspect the Removal Procedures. In the past year one illicit discharge of what appeared to be paint in a catch basin was reported. The Village responded and was able to vacuum out the catch basin before any contaminants entered any waterways. Door hangers were placed on nearby residents notifying them that an illicit discharge was found near their home.

#### **C.7 Visual Dry Weather Screening**

Measurable Goals: The Village will develop a scheduled program to periodically inspect all outfalls on a routine basis. All high priority outfalls will be visited annually and 20% of the remaining outfalls will be visited at least one time every five years.

Status: The Village has an informal inspection program where outfalls are visited and inspected periodically. The Village will make an effort in year 15 to develop and implement an inspection program for all outfalls on a scheduled basis in conjunction with item C-3 above. Currently the Village visits the high priority sites on an as needed basis and maintains a record of outfall inspection forms. The Village is planning on utilizing Google Earth to assist in this process.

#### **Illicit Discharge Detection and Elimination Evaluation**

The Village feels that the current program is very effective and has been very helpful in identifying maintenance needs.

### **4. Construction Site Runoff Control**

#### **D.1 & D.2 Development Ordinances / Erosion and Sediment Control BMPs**

Measurable Goals: The Village will update and enforce the Ordinance 05-13 "*Ordinance Adopting by Reference the Regulations of the Kane County Stormwater Management Ordinance*".

Status: The Village's Engineering Division will continue enforcing Ordinance 05-13. The Kane County SMO addresses all the requirements of the Construction Site Runoff Control Measure. The Village will continue to enforce the Ordinance and update it on an as-needed basis. The Village is a participating community in the National Flood Insurance Program (NFIP).

#### **D.4 Site Plan Review Procedures**

Measurable Goals: The Village will utilize and update the plan review checklists as required.

Status: The Village has developed standard forms for plan reviews consisting of check boxes, one of which is erosion control. For construction sites meeting the ILR10 threshold, a SWPPP is required during the plan review process. The SWPPP shall then be maintained and kept onsite by the contractor including

inspection forms. The plans are reviewed by multiple Village staff including consultant staff who are Kane County Qualified Review Specialist to ensure all requirements are met. The Village will continue to review site plans and will update their procedures as needed. In addition, plans are reviewed for conformance with the Kane County Stormwater Management Ordinance by qualified review specialist. For projects which require an Army Corps of Engineers permit, the Kane-DuPage Soil and Water Conservation District also completes a review of the soil erosion and sediment control plan as well as completing on-site inspections during construction.

#### **D.6 Site Inspection / Enforcement Procedures**

**Measurable Goals:** Develop and implement a set of standard site inspection and enforcement procedures.

**Status:** The Village conducts an initial erosion control inspection after the contractor has completed the installation of site erosion control measures. This inspection is required before the start of general construction; once the inspector is satisfied work may begin. If work has begun prior to these inspections a stop work order can be issued until compliance is achieved. The Village will continue to perform these site inspections and enforce proper site runoff control. For projects which require an Army Corps of Engineers permit, the Kane-DuPage Soil and Water Conservation District also completes a review of the soil erosion and sediment control plan as well as completing on-site inspections during construction.

#### **Construction Site Runoff Evaluation –**

The Village feels that this program is effective and does not plan on making any changes to the program at this time.

### **5. Post-Construction Runoff Control**

#### **E.1/E.2 Community Control Strategy / Regulatory Control Program**

**Measurable Goals:** The Village will enforce the Ordinance 05-13 “*Ordinance Adopting by Reference the Regulations of the Kane County Stormwater Management Ordinance*”.

**Status:** The Village’s Engineering Division will continue enforcing Ordinance 05-13’s stormwater program within the municipal limits. The Kane County SMO addresses all the requirements of the Post-Construction Site Runoff Control Measure. The Village will continue to enforce the Ordinance and update it on an as-needed basis.

#### **E.3 Long Term O&M Procedures**

**Measurable Goals:** Continue to enforce the required long term O&M procedures regarding post-construction runoff control.

**Status:** The Village requires a 15 month maintenance period after acceptance of public improvements for new developments. The developer is required to post bonds with the Village to ensure that the Village is satisfied with the work. During this 15 month period the Village inspects newly constructed storm sewers and detention/retention basins and holds the developer responsible for any corrections that are required. O&M plans have been incorporated into Covenants, Codes, and Regulations (CCR’s) documents which hold property owners accountable for corrective and/or maintenance work. The Village also requires the establishment of Dormant Special Service Areas (SSA’s) for all



sited which require stormwater detention facilities. The Village will continue to enforce and update their O&M procedure requirements as needed.

The Village has developed and is implementing a 10-year O&M plan for the recently constructed Carpenter Creek improvements. The Village has teamed with an ecological restoration firm to maintain the site and is considering expanding the maintenance contract to other native vegetation sites within the MS4.

#### **E.5 Site Inspections During Construction**

**Measurable Goals:** Conduct un-announced inspections by Village staff with relevant certifications.

**Status:** The Village performs un-announced site inspections to ensure that all the proper construction runoff control mechanisms are in place and functional. These inspections are performed by CISEC certified employees. If a site is found to be non-complaint the Village reserves the right to stop construction until deficiencies are corrected. The Village will continue to perform periodic un-announced inspections. For larger developments, the Village also holds weekly or bi-weekly onsite meetings with the developer/contractor to discuss all issues related to erosion control. On periodic occasions, the Village also verifies that the contractor is maintaining a copy of their SWPPP onsite including a record of inspections binder.

For projects which require an Army Corps of Engineers permit, the Kane-DuPage Soil and Water Conservation District also completes a review of the soil erosion and sediment control plan as well as completing on-site inspections during construction.

#### **E.6 Post-Construction Inspections**

**Measurable Goals:** Conduct final acceptance and end of 15 month maintenance period inspections.

**Status:** The Village requires a 15 month maintenance period after acceptance of public improvements for new developments. The developer is required to post bonds with the Village to ensure that the Village is satisfied with the work. During this 15 month period the Village inspects newly constructed storm sewers and detention/retention basins and holds the developer responsible for any corrections that are required. The developer is required to provide recordings proving that the system is functional, that there are no illicit discharges, and that the system is free from sediment. The Village will continue to inspect developments for the fore mentioned requirements.

#### **Post-Construction Runoff Control Evaluation**

The Village feels that this program is effective and does not plan on making any changes to the program at this time.

## **6. Pollution Prevention/Good Housekeeping**

#### **F.1 Employee Training Program**

**Measurable Goals:** Provide training to Village staff in relevant positions annually.

**Status:** The Village will continue to train employees in relevant public works positions to implement or utilize stormwater BMPs annually. In the past year, Village staff attended training for NPDES monitoring and reporting hosted by the Fox River Study Group. Additional training is planned for Year 15.

### **F.2/F.3 Municipal Properties Operation, Inspection, and Maintenance Program**

**Measurable Goals:** Continue the Storm Sewer System Cleaning Program (SSSCP) and maintain well-kept facilities to reduce the possibility of an illicit discharge source from a municipal facility.

**Status:** Public works has continued to perform street sweeping throughout the year to reduce the amount of sediment and debris entering the MS4. Snow and ice control has been geared to use less salt by focusing salt applications to main roads, intersections, and curves. The Village has also been using storm grates with imprinting stating that water drains to the River. Lastly, the Village has completed a river bank improvement project along the Fox River which included stabilizing the toe of slope with natural stone and incorporating native vegetation to reduce erosion. This was completed in two Village owned parks located along the Fox River. These projects are currently being maintained as part of the Village's O&M work.

Within the past year, the Village improved the Public Works Facility property by planting a portion of the Village's storage yard with native vegetation.

### **F.4 Municipal Operations Waste Disposal**

**Measurable Goals:** Provide proper disposal methods for municipal operations waste.

**Status:** The Public Works Department utilizes approved recycling programs to dispose of fluids, batteries, tires, and other byproducts of vehicle maintenance. Materials collected from catch basins are disposed of in proper landfills. If the material is mostly organic (leaf, grass, etc.) it is composted. Any large wood material collected is sent to a local chipping facility and used as mulch. The Village will continue these practices and implement new ways of responsible operations waste disposal as they become available.

### **Pollution Prevention/Good Housekeeping Evaluation –**

The Village feels that this program is effective and does not plan on making any changes to the program at this time.

## **Part C. Information and Data Collection Results**

The protocol established in the permit was followed; one Illicit discharge was reported and the Village addressed the issue before any contamination reached the stream. No testing was completed.

## Part D. Summary of Proposed Year 15 Stormwater Activities

The Village of Carpentersville submitted a new NOI for coverage under the General NPDES Permit No.: ILR40 which became effective on March 1, 2016. This NOI was submitted to the IEPA in May of 2016.

Below are listed the various BMPs which have milestones to be completed in Year 15, as outlined in the NOI as part of the current NPDES permit that expires February 28, 2021. The specific milestone to be completed for each BMP is shown.

- A.1 – Include NPDES Phase II information in a Village wide newsletter and distribute it on a semi-annual basis or provide educational pamphlets at the Village application counter. This information will be tailored to reach out to Environmental Justice areas and will include information regarding climate change.
- A.6 – Continue to maintain and update Engineering Standards, details and development codes on the Village's website.
- B.3 - Participate in a local watershed group meeting or host a local watershed group meeting in a municipal facility.
- B.7 – Conduct a public meeting or public hearing on its proposed stormwater management plan. The Village will meet its own requirements for conducting public meetings or hearings.
- C.1 – Continue to maintain and update their digital storm sewer map. The map will be converted to a GIS based platform when funds/personnel become available.
- C.2 – Continue to Enforce an Illicit Discharge Detection and Elimination ordinance or similar code to prohibit non-storm water discharges into the MS4.
- C.3 – Develop and Implement the prioritization plan and update/modify, as needed
- C.4 – Continue to implement and update/modify Tracing Procedures
- C.5 – Continue to implement the Source Removal Procedures.
- C.7 – Develop a scheduled program to periodically inspect all outfalls on a routine basis.
- D.1&D.2 – Update and enforce the Ordinance 05-13 as required
- D.4 – Utilize and update plan review checklists as required.
- D.6 – Develop and implement a set of standard site inspection and enforcement procedures
- E.1&E2 – Enforce the Ordinance 05-13
- E.3 – Continue to enforce the required long term O&M procedures regarding post-construction runoff control.
- E.5 – Conduct un-announced inspections by Village staff with relevant certifications.
- E.6 - Conduct final acceptance and end of 15 month maintenance period inspections.
- F.1 – Provide training to Village staff who manage or are directly involved in the routine maintenance, repair or replacement of public surfaces.
- F.2-F.3 – Continue the Storm Sewer System Cleaning Program (SSSCP) and maintain well-kept facilities to reduce the possibility of an illicit discharge source from a municipal facility.
- F.4 – Provide proper disposal methods for municipal operations waste.

## **Part E. Notice of Qualifying Local Program**

There are currently no Qualifying Local Programs that the Village wishes to rely on to meet the NPDES Phase II requirements.

## Part F: Construction Projects Conducted During Year 14

In year 14 the Village was in the process of constructing one project that required a Notice of Intent and completing another project that disturbed over one acre:

Facility:	Carpenter Park Phase 1 Renovation Carpentersville, IL
County:	Kane
NPDES Permit No:	ILR10U659
Status:	CONSTRUCTION IN PROCESS

Facility:	Carpenter Creek Stream Restoration Carpentersville, IL
County:	Kane
NPDES Permit No:	ILR10V438
Status:	COMPLETED IN THE SPRING OF 2016

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