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June 1, 2023

Ms. Terri LeMasters
Illinois Environmental Protection Agency, DWPC
Compliance Assurance Section #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Re: Village of Carpentersville, NPDES Phase II Annual Update (2022/2023)
IEPA Permit No. ILR40-0309
HR Green Job No. 2202392

Dear Ms. LeMasters:

Enclosed please find the NPDES Phase II Year 20 (2022/2023) Annual Update for the Village of Carpentersville in Kane County. As the representative of the Village of Carpentersville, HR Green, Inc. coordinated with the Village in the completion of the enclosed Annual Facility Inspection Report for continued coverage under the General Permit ILR40, issued by the Illinois EPA.

If you have any questions, please contact me at 815-759-8370.

Sincerely,

HR GREEN, INC.

A handwritten signature in black ink, appearing to read 'Logan Gilbertsen'.

Logan Gilbertsen, P.E., CFM
Project manager - Water Resources

Jg/lg

Enclosure: Annual update – Village of Carpentersville

cc: Mr. Edward J. Szydlowski, Village of Carpentersville
Mr. Kevin Gray, Village of Carpentersville
Mr. Ajay Jain, HR Green, Inc.



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

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, 2022 To March, 2023

Permit No. ILR40 0309

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: 221-293-1613
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 ☐ | 4. Construction Site Runoff Control ☐ |
| 2. Public Participation/Involvement ☐ | 5. Post-Construction Runoff Control ☐ |
| 3. Illicit Discharge Detection & Elimination ☐ | 6. Pollution Prevention/Good Housekeeping ☐ |

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

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

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

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

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

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



Owner Signature:

Kevin Gray, P.E., CFM

Printed Name:

5/25/23

Date:

Director of Public Works / Village Engineer

Title:

EMAIL COMPLETED FORM TO: epa.ms4annualinsp@illinois.gov

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 20 (March 2022- March 2023) Annual Update
Village of Carpentersville, Kane County
IEPA Permit No. ILR40-0309

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Part A. Changes to Best Management Practices

There were no changes in Year 20 to the Best Management Practices (BMPs) that were outlined in the NOI submitted to the IEPA on May 28th, 2021.

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 evaluated BMPs based on the estimated effectiveness from published research.

Village has completed monitoring of the pollutant reductions from 49 detention basins within the MS4 service area. These calculations were performed using the MS4 Non-Point Source Control Measure Tracking Tool spreadsheet provided by the Fox River Study Group. The Village has also implemented approximately 9,000 linear feet of stream bank stabilization along Carpenter Creek which has been accounted for in the spreadsheet as constructed wetlands and grassed waterways. The total load removed from the 49 detention basins and Carpenter Creek streambank stabilization has been calculated to be approximately 731 pounds per year. The results from the monitoring have been provided to the Fox River Study Group which aims to reduce the pollutant loading to the Fox River.

In Year 17, the Village completed a stream stabilization project through Keith Andres Park. The project's resulting load reductions were recently obtained in Year 19 and are shown below:

- Nitrogen Reduction: 121 pounds per year
- Phosphorus Reduction: 46.6 pounds per year
- BOD Reduction: 242 pounds per year
- Sediment Reduction: 65.8 tons per year

These data will be reported to the Fox River Study Group as well to contribute to the phosphorus and BOD reduction study along the Fox River.

The Village completed restoration of a portion of Sleepy Creek and has continued to monitor and maintain this portion of the stream in Year 19. Additionally, the Village completed the Wakefield-Bristol drainage improvement project in Year 19, which included installation of a drywell. The drywell is considered a BMP which will promote infiltration.

In Year 20, maintenance of the Village's restored stream reaches continued. The Village also continued cleaning of storm sewer catch basins and maintaining the many dry wells it owns.

Part B. Status of Compliance with Permit Conditions

The status of BMPs and measurable goals performed in Year 20 (2022/2023) are described below.

1. Public Education and Outreach

A.1 Distributed Paper and Educational Materials

Measurable Goals: Include NPDES Phase II information on the Village's social media accounts on a semi-annual basis and post informational brochures to the Village website. This information will be tailored to reach out to Environmental Justice areas and will include information regarding climate change.

Status: The Village has three educational brochures on their website on the "Stormwater Management page". One of the brochures is a "How-To Manual For Homeowners" on Rain Gardens, which provides step-by-step instructions on how to size, site, build, plant, and maintain a rain garden. There is another brochure on rain gardens which offers information on what a rain garden is, their benefits, and recommended plant types for sun and shade. The final brochure is an IEPA pollution brochure which offers information on "healthy household habits for clean water."

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 has located a video in Spanish about Illicit Discharge Education and Elimination, which has been posted onto their website under "Stormwater Management." This video is also offered in English.

The Village has posted information on climate change on their website under "Stormwater Management." The site can be found under "Quick Links" under "Information on Climate Change." The climate change website that has been posted is the following: <http://www.globalchange.gov/climate-change>. Other links provided are to the IEPA's website (<https://www2.illinois.gov/epa/Pages/default.aspx>) and the IEPA's Stormwater Requirements Page (<https://www2.illinois.gov/epa/topics/forms/water-permits/storm-water/Pages/default.aspx>).

The Village has also been regularly posting information on their social media accounts regarding stormwater. Examples of Facebook posts include:

March 31, 2022: "This Spring, help keep drainage easements on your property clear. Blocked drainage easements on your property can cause flooding. You may also want to check your home insurance policy to see if you have flood coverage."

April 22, 2022: "Help protect natural floodplain functions. Do not dump into streams, ravines, and rivers. This can cause flooding and damage property. Thanks for helping to keep our waterways clean!"

May 6, 2022: "According to the Water Environment Federation, stormwater in the only growing source of water pollution in many watersheds across the country – and it happens way too often here in Kane County, IL."

May 25, 2022: "Help protect your basement from flooding by making sure your downspouts drain away from your home's foundation. Check your insurance policy to see if you are protected against flooding. Flood insurance sometimes take 30 days to become active."

July 27, 2022: "Helping protect your basement from flooding by making sure your downspouts drain away from your home's foundation. Check your insurance policy to see if you are protected against flooding. Flood insurance sometimes take 30 days to become active."

November 30, 2022: "Concerned about flooding in your home? Check your insurance policy for flood insurance. There is a 30 day waiting period on most policies."

December 28, 2022: "Protect your home against winter flood / water damage. Clear window wells and gutters of debris, and be sure downspouts extend at least two to three feet away from the house. This will prevent water from pooling near foundation walls and basement windows."

January 11, 2023: "Protect your property against flooding. Keep drains clear of ice and snow in the streets."

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. Maintain the Adopt-A-Highway program.

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 20. The Adopt-A-Highway program is still at maximum capacity and there is a waiting list. The Village also has an Adopt-A-Park program. As a part of this program, Carpenter Park is still the only park that has been adopted and is regularly cleaned, especially along Carpenter Creek within the park limits. The Village is still in the process of developing an Adopt-A-Stream program as time permits. Overall, the "Adopt-A" programs have been well received by the public and has been successful from the Village's point of view.

The Village also has a tree planting program where new trees are installed in parkways and parks throughout the community. In Year 20, the Village planted 76 new trees which help to reduce and slow stormwater runoff and absorb pollutants. The trees were planted within the roadway parkways and parks.

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 project has also been awarded the Project of the Year in the Environmental category by the Fox Valley Branch of the American Public Works Association (APWA) and the Merit Award by the American Council of Engineering Companies (ACEC) of Illinois. The project area and signs have been maintained. The Village continues to maintain this site.

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. Twenty-nine (29) signs have been posted to date and all streams still have a sign posted. The Jelkes Creek-Fox River Action Group has stopped meeting since the start of the pandemic. The Village has also added a "Protect Your Water" informational sign with the Fox River Ecosystem Partnership (FREPP) website for subwatersheds so residents can learn more about watersheds. These signs have been maintained.

In Year 20, the Village has partnered with the Friends of the Fox River (FOTFR) group to assist in educational and public involvement efforts. The FOTFR group will collect and analyze water quality data with local high school students, assist with school sponsored events, provide residents and students with opportunities to participate in natural area restorations including tree planting. The group will also work with the Village's staff to publish watershed educational material through print and electronic media.

Public Education and Outreach Evaluation

The Village feels that the new partnership with FOTFR will greatly enhance the public education and outreach of the program. The website is a good tool for residents looking for specific information related to stormwater, illicit discharges, and climate change. The Adopt-A-Highway has been a great success and the program continues to be at maximum capacity with a waiting list. The Village's Adopt-A-Park program has also been successful. Additionally, the Village feels that the Facebook posts about stormwater are effective. For example, if river cleanups are promoted on Facebook, the events are well attended by residents. Additionally, the Village's efforts to promote restoration projects in the community sparks the public's interest into water quality and these projects are used as example projects for surrounding communities.

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 regularly attends the Fox River Study Group meetings and reviews the meeting minutes as they are emailed out to members. Members of the Village's wastewater staff have attended the meetings for the Fox River Study Group in Year 20.

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 on YouTube.

On November 1, 2022, the village accepted public comments for the proposed Carpentersville Logistics Park at Binnie and Randall Roads. Comments were regarding the impact of development on stormwater, groundwater, wildlife and traffic.

On January 4th 2022, Mr. Kevin Gray, the Director of Public Works and Engineering discussed the importance of street sweeping to meet the measurable goals for the Village's IEPA NPDES Phase II permit regulations. It was recommended for the Village Board to approve the extension of the 2021 street sweeping contract with Lakeshore Recycling Systems to the year 2022.

Public Participation/Involvement Evaluation

The Village feels that the new partnership with FOTFR will increase the reach of the public participation and involvement aspect of the program. Part of the partnership with FOTFR includes assistance with promoting connecting with nature through canoeing the Carpentersville portion of the Fox River, guided nature hikes, promotion of the Its Our Fox River Day event which includes annual river clean up within Carpentersville. The group will also promote National Canoe Day on June 26th to help residents connect with the River. Presentations at board meetings will continue as they serve as an effective tool for getting information to the public as well.

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: Before Year 15, the Village had an AutoCAD based digital map of their storm sewer system. The map included approximately 39 miles of mainline storm sewer, over 2,400 catch basins and inlets, and approximately 30 outfall locations. The map was updated annually as new storm sewers were discovered or constructed. In Year 14, four new drywells were added to the MS4, these have been added to the Village's AutoCAD atlas.

The Village contracted HR Green to utilize the existing AutoCAD based digital map of their storm sewer system to create a GIS format Outfall Map. An Outfall Map has been created which now has approximately 299 outfalls identified within the Village boundaries. Adjustments to the Outfall Map will be made as necessary during HR Green and Village coordination and during outfall inspections. An outfall labeling system has been developed for the Outfall Map; each outfall is labeled based on its location within the Public Land Survey

System (PLSS) grid. The outfall labeling assists with identifying each outfall location based on its Quarter and Section. The Outfall Maps are serving as an effective tool to quickly locate outfalls and to more efficiently track potential illicit discharges. The outfall map and sewer atlas are now maintained in a GIS format.

In Year 20, the Village contracted HR Green to continue updating the Outfall Map as outfall inspections are completed. The Village has recently improved approximately 7 of the storm sewer systems outfalls along North Lincoln Avenue. HR Green visited these outfalls in 2022 and updated the database with the improved outfall information.

The outfall labeling system and maps have been very effective for locating and inspecting outfalls. Kane County has been in the process of mapping all storm sewers within the County. The Village is providing data to assist with this effort.

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: The Village contracted with HR Green to develop and implement an inspection program for all outfalls on a scheduled basis. In Year 16, HR Green conducted outfall inspections for high priority outfalls and 20% of the remaining mapped storm sewer outfalls. High priority outfalls were determined through discussions between HR Green and the Village. Five (5) outfalls are high priority.

In Year 17, 18 and 19, HR Green continued to conduct outfall inspections for high priority outfalls and returned to outfalls which were marked as “investigate/watch further” in the previous year. No signs of illicit discharges were identified. Outfall inspections were also completed for 20% of remaining mapped storm sewer outfalls.

In Year 20, HR Green conducted outfall inspections for high priority outfalls and returned to outfalls which were marked as “investigate/watch” in previous years. No signs of illicit discharges were identified. Outfall inspections were completed for 79 outfalls.

Currently, 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. Additionally, the Village Engineer has developed 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 and update/modify as 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. The new GIS Outfall Map is better assisting the Village staff 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 and update/modify as necessary.

Status: Currently, the Village works with property owners to help with any required permitting for 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 no illicit discharges were located.

In Year 20, the Carpentersville Fire Department responded to hazardous materials incident. A truck was leaking diesel fuel after it struck a utility pole and the Village worked with the Fire Department along with a hired consultant to address the spill. The spill was able to be contained and was reported to the Illinois Emergency Management Agency.

C.7 Visual Dry Weather Screening

Measurable Goals: The Village will continue their 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 once every five years.

Status: The Village has identified 299 individual outfalls within the Village limits. The Village has contracted HR Green to develop and implement an inspection program for all outfalls on a scheduled basis. HR Green conducted outfall inspections for high priority outfalls and 20% of the remaining mapped storm sewer outfalls. High priority outfalls were determined through discussions between HR Green and the Village. An outfall visit included a photo of the outfall, marking of the outfall with a paint-pen or equivalent and completion of an outfall reconnaissance inspection (ORI) form. The results of the ORI forms were input into an Excel table for record keeping.

In Year 20, HR Green continued to conduct outfall inspections and a total of 79 outfalls were visited. HR Green returned to outfalls which were marked as "investigate/watch" in previous years. No illicit discharges were identified, and no additional outfalls were identified as outfalls to watch/investigate. The goal to visit 20% of the outfalls was met.

Illicit Discharge Detection and Elimination Evaluation

The Village feels that the creation of the GIS Outfall Map and outfall inspection program is very effective and has significantly enhanced the Village's ability to track outfalls within Village boundaries. The Village is satisfied with their new GIS Outfall Maps, as they are better assisting the Village staff to more efficiently search for potential illicit discharges. The outfall inspection program has been very successful. In Year 20, 79 outfalls were visited, and no illicit discharges were found.

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 (QRS). 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: The Village will continue to implement 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 efforts to control construction site runoff are 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 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. In year 16, the Carpenter Creek corridor went through a controlled burn to enhance the native vegetation population along the waterway. A controlled burn was again completed for Carpenter Creek in Year 19. In Year 20 the site was monitored and spot herbicide treatments applied where necessary by a licensed applicator. Whenever the Village implements a restoration project, a long-term monitoring & maintenance period is required to help establish the native vegetation. Monitoring and maintenance efforts have been ongoing for recently completed restoration projects, such as along Carpenter Creek, Sleepy Creek and in Keith Andres Park.

E.5 Site Inspections During Construction

Measurable Goals: Conduct unannounced inspections by Village staff with relevant certifications.

Status: The Village performs unannounced 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 who manage or are directly involved in the routine maintenance, repair, or replacement of public surfaces in current green infrastructure techniques or to implement or utilize stormwater BMPs.

Status: The Village will continue to train employees in relevant public works positions to implement or utilize stormwater BMPs annually. Key Village staff (the Village Engineer and Public Works Director) attend the Illinois Association for Floodplain Managers (IAFSM) Annual Conference each year. The conference has several useful presentations about stormwater, water quality, and green infrastructure.

In Year 18, all of the roadway staff had attended the Sensible Salting course provided by Kane County and other local agencies.

In Year 19, the Village furnished each snowplow with a binder from the Sensible Salting course to keep staff educated on best practices for salting. The binder includes information on the recommended salt application rates.

In Year 20, The Village's Senior staff continued to complete in-house staff training for salting annually.

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 through a contract with Lakeshore Recycling Systems. 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. The Village has completed a riverbank 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.

The Village also regularly uses a Vactor Truck for catch basin cleaning and storm sewer cleaning.

The Village improved the Public Works Facility property by planting a portion of the Village's storage yard with native vegetation, which is regularly maintained. Additionally, as part of the Carpenter Creek project completed in the spring of 2016, the Village constructed a 30' riparian buffer along Carpenter Creek in the park as a best management practice. This site was maintained in Year 20.

Additionally, native vegetation has been added along Carpenter Creek near the crossings of Washington Street and Spring Street. These areas are being maintained by the Village and their consultants.

The Village completed a major stream restoration project in Keith Andres Park in Year 17. This site has been added to the Village's maintenance program. The Village has also completed the Sleepy Creek restoration project in Year 18 which is also in its monitoring and maintenance period.

In Year 19, the Village completed the Wakefield-Bristol drainage improvement project, which included the installation of a drywell. This drywell will offer water quality benefits by promoting infiltration and will be maintained by the Village so that it continues to function as designed in the future.

In Year 20, the Village continued to maintain all the above BMPs.

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.

Additionally, the Village has regularly posted educational information on its social media accounts about what can and cannot be recycled. These posts stress that plastic bags, clothing, cords, and shredded paper cannot be

recycled. Educating residents is a critical component for proper sorting of municipal operations waste.

Pollution Prevention/Good Housekeeping Evaluation –

The Village feels that pollution prevention and good housekeeping 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; no illicit discharges were reported in Year 20.

In previous years, the Village has completed monitoring of the pollutant reductions from 49 detention basins within the MS4 service area. These calculations were performed using the MS4 Non-Point Source Control Measure Tracking Tool spreadsheet provided by the Fox River Study Group. The Village has also implemented approximately 9,000 linear feet of stream bank stabilization along Carpenter Creek which has been accounted for in the spreadsheet as constructed wetlands and grassed waterways. The total load removed from the 49 detention basins and Carpenter Creek streambank stabilization has been calculated to be approximately 731 pounds per year. The results from the monitoring have been provided to the Fox River Study Group which aims to reduce the pollutant loading to the Fox River.

In Year 17, the stream through Lake Marian Creek through Keith Andres Park was restored. The project's resulting load reductions were recently obtained in Year 19 and are shown below:

- Nitrogen Reduction: 121 pounds per year
- Phosphorus Reduction: 46.6 pounds per year
- BOD Reduction: 242 pounds per year
- Sediment Reduction: 65.8 tons per year

In Year 19, the Village completed the Wakefield-Bristol drainage improvement project which included installation of a drywell. This drywell will offer water quality benefits by promoting infiltration.

No new data results were produced by the Village in Year 20. The Village is an active member of the Fox River Study Group which regularly collects and tests water samples along the Fox River.

Part D. Summary of Proposed Year 21 Stormwater Activities

The Village of Carpentersville submitted a new NOI for coverage under the General NPDES Permit No.: ILR40 which became effective in 2021. This NOI was submitted to the IEPA in May of 2021.

Below are listed the various BMPs which have milestones to be completed in Year 21, as outlined in the NOI as part of the current NPDES permit that expires February 28, 2026. The specific milestone to be completed for each BMP is shown.

- A.1 – Include NPDES Phase II information on the Village's social media accounts on a semi-annual basis and post informational brochures to the Village website. 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. Maintain the Adopt-A-Highway program.
- 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.
- 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 – Implement the prioritization plan and update/modify, as needed
- C.4 – Continue to implement Tracing Procedures and update/modify as necessary.
- C.5 – Continue to implement the Source Removal Procedures and update/modify as necessary.
- C.7 – Visit all high priority outfalls and 20% of remaining outfalls. Maintain a record of outfall inspection forms.
- 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 – The Village will continue to implement site inspection and enforcement procedures.
- E.1&E.2 – 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 in current green infrastructure techniques or to implement or utilize stormwater BMPs.
- 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. The Village is a member of the Fox River Study Group which completes sampling along the Fox River and the Village has also started a new partnership with the Friends of the Fox River to assist in public education and public involvement aspects of the permit.

Part F: Construction Projects Conducted During Year 20

In Year 20 the Village did not complete any projects that were greater than one acre in disturbance. No projects required a NOI under the ILR10 General Permit.

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