ANNUAL REPORT

Calendar Year 2024

CITY OF ROCKFORD, ILLINOIS

MUNICIPAL SEPARATE STORM SEWER SYSTEM

NPDES Permit No. ILS000001

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INTRODUCTION

This report is prepared in compliance with the City of Rockford's NPDES Stormwater Permit No. ILS000001. The report contains information for calendar year 2024. The NPDES permit Part V.B (2021 Permit) requires a system-wide report containing the following sections:

Required Information	**See Herein**
1. Status of SWMP	Chapter 2
2. SWMP Modifications	Chapter 3
3. Revisions to the Assessments of Controls and Fiscal Analysis	Chapter 3
4. Overall Summary of Data	Appendices B & C
5. Annual Expenditures	Chapter 3
6. Summary of Enforcement Actions, Inspections and Public Education Programs	Chapters 2 & 3
7. Identification of Water Quality Improvements or Degradation	Appendices B & C
8. Locations of Monitoring Outfalls	Appendix A
9. Summary of SWMP Experiences	Chapter 3
10. Summary of Effectiveness and Accuracy of Monitoring Program	Chapter 3

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Thomas P. McNamara
Mayor, City of Rockford

Date: 3-20-2025

Timothy Hinkens
Interim Public Works Director

Date: 3-20-2025

STATUS OF SWMP

Part III in the 2021 permit, Schedules for Implementation and Compliance, requires the City to provide summaries of implementation components of the Stormwater Management Program (SWMP):

- Structural Controls
- Erosion & Sedimentation Controls, Construction Site Runoff and Post-Construction Stormwater Management Program
- Roadways
- Flood Control
- Pesticide, Herbicide and Fertilizer Application
- Illicit Discharge and Improper Disposal
- Industrial and High-Risk Runoff
- Public Education, Pollution Prevention and Good Housekeeping

The activities undertaken in these areas and status of compliance with permit conditions are described in this chapter of the report. The City began operating under its current Municipal Separate Storm Sewer System (MS4) permit on May 1, 2021.

During 2024, the City's Stormwater Management Program accomplished many objectives, which are detailed within this report.

2.1 STRUCTURAL CONTROLS

This section addresses Part II.A.1. and Part III.A of the permit.

The City continues to inspect and maintain data on several features of the stormwater system. The City regularly updates its spatial and tabular databases that record inspections, complaints and maintenance items, master planning, and compliance with NPDES permit conditions. Details from a January 2025 overview of the most important databases for structural controls are located in Table 1.

TABLE 1 CITY OF ROCKFORD STORM SEWER INFORMATION SYSTEM

Theme	Database Fields / Features	Comment
Detention Basin Structure	Detention structure No., location, date, last rainfall, sediment present, floatables present, water present, ID link to inspections	518 detention structures all but 24 of which are privately owned (see Appendix C)
Culvert	Location, material type, ID, shape, length, upstream and downstream invert elevations, size, other	872 records
Storm Sewer	Location, ID, shape, size	34,733 records (3,650 Private)
Manholes	Installation date, diameter, frame material, condition, inspection date, inspector	11,0075 records (1,469 Private)
Inlets	Installation date, type, inspection date, inspector	24,090 records (2,029 Private)
Outfalls	Size, material, end structure, drainageway	1,306 records
Storm Camera CCTV	Preventative Maintenance, Condition of Pipe	33 pipes Televised (5,878 Ln. Ft.)

The City purchased a CCTV Camera System from CUES, Inc. in March 2017 and implemented it in June 2017. The GraniteNet software used with the TV Camera in combination with Geographic Information System (GIS) mapping allows the Stormwater team to identify problematic areas, view videos and create reports based on the operator's inspections.

Per the permit, the City must operate and maintain any stormwater structural controls for which they are the owner or operator in a manner to reduce the discharge of pollutant loading to the maximum extent practicable. In compliance with the permit, the City of Rockford continually maintains their stormwater system, including basin improvements. Appendix D contains information about City-owned or City-operated stormwater control basins and structures including an update of recent maintenance activities and improvements:

The City regularly evaluates the storm sewer system for opportunities to improve water quality and quantity concerns of the system. Table 2 shows the number of stormwater service requests generated through the Street Division and the Hansen system. The requests are broken out to show the number of requests generated by citizens (reactive) and City staff (proactive) as they are in the area for other duties or as part of the regularly scheduled maintenance.

TABLE 2: YEARLY STORMWATER REQUESTS FOR SERVICE

Year	# Requests Generated	Generated Proactively	Generated Reactively	Inspected per SOP Requirements
2016	479	319	160	100%
2017	513	304	209	100%
2018	346	66	280	100%
2019	349	137	212	100%
2020	222	52	170	100%
2021	247	41	206	100%
2022	178	33	145	100%
2023	154	24	130	100%
2024	236	17	219	100%

The service requests include inlet and pipe cleaning or repairs, missing manhole covers, trash rack cleaning, detention basin maintenance and a variety of other storm system maintenance items. Table 3 shows a yearly summary of inlet maintenance and repairs. Capital Improvement Program (CIP) inlet maintenance is not included in the service requests listed in Table 2, but are completed through proactive inspections as the City completes its annual CIP projects.

TABLE 3: ANNUAL INLET & MANHOLE MAINTENANCE

Year	Inlets & Manholes Deducted	Inlets/Manholes/ Pipes Repaired	Feet of Storm Drains Cleaned	Quantity (Tons) of Debris Removed	Inlets & Manholes Installed & Repaired Through CIP
2015	220	150	7,070	8	579
2016	156	166	8,532	56	275
2017	159	112	6,927	2.25	630
2018	162	82	6,087	1.3	325
2019	283	134	11,569	1.7	250
2020	211	108	11,952	22.4	241
2021	273	130	13,969	47.7	258
2022	165	110	4,400	35.25	230
2023	111	194	4,460	42.75	191*
2024	119	192	9,308	291.4	197

* Installed 232 linear feet of storm sewer

- In 2016, IDOT completed reconstruction of South Main Street including storm sewer system.
- In 2018, the City of Rockford finished a complete reconstruction on Harrison Avenue, including the storm sewer system and repairs to concrete channel.
- In 2019, IDOT completed reconstruction of North Main Street, including storm sewer system.

- The construction of Mercy Way was completed in 2019 and provides easier access to the new Mercy Hospital Campus. This construction includes installation of 8,121 feet of new storm sewer, 97 inlets, 2 box culverts over Keith Creek and 3 detention basins.
- During the 2020 season, Strathmoor Drive was extended to provide easier access to St. Anthony Hospital. The extension included an additional 1,420 feet of stormsewer and 14 inlets. This project was completed in 2021.
- During the 2021 season, 9th Street from Charles to E. State Street was reconstructed including new stormsewer, curb and gutter.
- Sandy Hollow Road from Kishwaukee Street to Brooke Road was reconstructed with new stormsewer, curb and gutter in 2021.
- The City of Rockford completed construction of the Logistics Drive Extension from Blackhawk Road to Samuelson Road which included new stormsewer and widening of an existing drainageway to relieve area flooding.
- In 2023, reconstructed Charles Street from 28th Street to Parkside Drive including installation of new stormsewer.
- In 2024, reconstruction of Whitman Street from North Main to Underwood Street began with completion expected in 2025. This reconstruction included installation of utilities including new storm sewer, curb and gutter.

Per Permit Parts II.A.1.a-b and Part II.A.2.b.iii-iv, the City must establish and implement a program to monitor basins on a periodic basis to assess maintenance efforts. This program is detailed in the Detention Basin Standard Operating Procedures located in Part D-1 of the City's Stormwater Master Plan. The City initiated detention basin inspection and maintenance program in 2011 and completed inspections for all known basins. See Table 4 for a comparison of basin inspections from 2011-2023 (odd years). Per the Standard Operating Procedures, all privately owned detention basins are inspected during odd years, and all publicly owned and private basins that are high priorities are inspected annually as well as following a specified rain event (6" in 24 hours or greater). Rain amounts are based on the Rockford Airport rain gauge. Basins are inspected to ensure they are operating as close to design specifications as possible and to determine any maintenance needs. Owners are then notified of the maintenance requirements, and follow-ups are completed to ensure it was done.

Permit part II,A,1,a states: basin inspection data shall be compiled in a database for analysis of different basin configurations and types of outlet structures to determine if certain design elements should be used for future basins or used to improve existing basin configurations. In Rockford, it is the property owner's/engineering firm's discretion how detention basins are designed provided they comply with City of Rockford design requirements. Though the information from basin inspections are available to consultant engineers to review for future design considerations none have ever requested to see them during the past ten plus years. It is our determination there are better resources available to engineers for detention basin designs and this information is not necessary. We recommend this requirement be stricken from future permit requirements.

TABLE 4 YEARLY DETENTION BASIN INSPECTION AND MAINTENANCE RATINGS

Year	# of Detention Basins Inspected	No Maintenance	Minor Maintenance	Intermediate Maintenance	Major Maintenance
2011	223	34 (15.2%)	110 (49.3%)	68 (30.5%)	11 (5%)
2013	383	166 (43.4%)	94 (24.5%)	105 (27.4%)	18 (4.7%)
2015	463	75 (18.2%)	170 (41.2%)	167 (40.5%)	1 (0.1%)
2017	439	214 (48.8%)	159 (36.2%)	66 (15%)	0
2019	472	162 (34.4%)	175 (37.2%)	133 (28.3%)	2 (0.1%)
2021	479	176 (36.74%)	254 (53.03%)	48 (10.02%)	1 (0.21%)
2023	501	174 (34.83%)	258 (51.63)	66 (13.53)	3 (.01)

In 2024, the City completed inspections on all public and priority basins as indicated in the standard operating procedures. Aside from one basin, whom we were already working with regarding repairs, there were minimal concerns.

The City approved its revised Stormwater Ordinance (Ord. No. 2015-093-O) in 2015. This is in response to revisions to IEPA's General Construction Permit (ILR10) as well as the State and Federal post construction management requirements. This Ordinance approval also gave the City the ability to require property owners to maintain detention and drainage easements on their properties as well as submit them to code enforcement, if necessary. The floodplain section of the ordinance was updated in 2021 in order to comply with the City of Rockford's enrollment into FEMA's Community Rating System. The City also updated its Stormwater Technical Guidance Manual, which is a guide to assist developers and applicants in complying with the City's Stormwater Ordinance as well as the technical requirements of the stormwater permit application. Copies of both of these documents can be found at the following link: https://rockfordil.gov/274/Stormwater-Environmental-Team.

In 2023, the City hired HR Green to review and update the City's stormwater ordinance. These revisions remain ongoing and is scheduled for completion and adoption in 2025.

Table 5 indicates improvements to detention basins resulting from inspections. Appendix E shows previous year's improvements to detention basins.

TABLE 5: DETENTION BASIN MAINTENANCE PROJECTS

Year	Site Location	Cooperating Agency/Company	Project Type
2024	District 1 Police Station (Basin #483)	City of Rockford/TR Equipment	Repair undercutting channel & backfill
2024	1218 Esmond (Basin #547)	City of Rockford/TR Equipment	Gully repair on slope
2024	Basin #224, NW Rote & Perryville)	City of Rockford/TR Equipment	Pipe Repair
2024	Gressridge Basin Repair (Basin #147)	City of Rockford/TR Equipment	Seal pipe, backfill, install check dam (20 ton of sediment removed)
2024	Laurel Cherry (Basin #138)	City of Rockford/DPI	Replacement of outlet pipe
2024	5117 Carter Ct. (Basin #548)	City of Rockford/TR Equipment	Sediment removal from low flow channel (15 ton removed)
2024	Harrison Park Basin (Basin #225)	Harrison Park Homeowners Ass.	Repairs to basin's berm at discharge point.

Part II.A.1.d of the permit requires the City to identify eroding stream channels in its jurisdiction and remediate them. Per the City's Standard Operating Procedures, creek walks were completed in 2024 along with outfall inspections. See Table 12 for a list of flood, drainage and creek stabilization projects from 2024 as well as Appendix E for maintenance in years past.

Table 6 shows a summary of creek inspection findings including number of miles in each maintenance category. During the creek walks one beaver dams was observed and it was removed by City staff.

TABLE 6 CREEK INSPECTION MAINTENANCE RATINGS						
		Maintenance Categories (Miles)				
Year	Total Miles	None	Minor	Intermediate	Major	Life Safety
2016	69.7	65.0	3.0	1.7	0	.01
2018	69.7	67.47	1.8	0.49	0	0.03
2020	69.7	69.4	0.2	0.1	0	0
2022	69.7	69.3	0.1	0.3	0	0
2024	69.7	69.2	0.3	0.2	0	0

Table 7 shows a breakdown of creek inspection findings.

TABLE 7 CREEK INSPECTION FINDINGS			
	Finding Types (Miles)		
Year	Sediment	Erosion	Other
2016	1.7	0.6	0.6
2018	1.10	1.08	0.06
2020	0.02	0.2	0.08
2022	0.06	0.4	0
2024	0.08	.27	0

The 13.5 miles of the Rock River outfalls were inspected by either drone or from shore. There were no significant issues noted from those inspections.

2.2 EROSION & SEDIMENTATION CONTROL, CONSTRUCTION SITE RUNOFF AND POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

This section addresses Part II.A.2 and III.A of the permit. This program is detailed in the Erosion and Sediment Control Plan review and Regulatory Inspections Standard Operating Procedures located in Part D-2 of the City's Stormwater Master Plan.

Nearly all projects that occur within Rockford City limits require site development permits which are reviewed by Department of Public Works staff to insure they comply with technical requirements including proper construction site erosion controls. Most projects did not require Stormwater Pollution Prevention Plans (SWPPP), but erosion and sedimentation control plans are reviewed by staff for compliance with the ordinance. The City closely monitors IEPA's permitting page (https://permitsearch.epa.gov/epermit-search/ui/search) to make sure all projects requiring IEPA permitting receive proper City permitting as well. In addition, since IEPA does not review SWPPP's and Erosion Control Plans, the City does as a part of their review process. Appendix F lists the number of approved IEPA permits from their website, as well as their status and inspection frequencies.

The City completes three types of erosion and sediment control inspections depending on site conditions and contractor compliance. These are Pre-Grading, Drive-through and Full Inspections. Drive-thru inspections are visual assessments of a construction site and considers site cleanliness and condition of in-place BMP's. An erosion and sediment control inspection is a review of the SWPPP, erosion and sediment control plan, inspection records, as well as site conditions.

Table 8 gives a yearly review of plan reviews and inspections. These inspections are performed in compliance with Permit Parts II.A.3.a.iii. All inspection goals were met in 2024.

TABLE 8 PLAN REVIEW AND EROSION & SEDIMENT CONTROL YEARLY COMPARISON

Year	# Plans Reviewed	# Complaints	Pre-Grading Inspection	# Drive Through Inspections	# Full ESC Inspections	# Requiring Follow Up Inspections	# Stop work Orders /Code Enforcement
2015	150	5	5	129	130	116	1
2016	153	5	5	235	122	80	3
2017	137	2	1	78	126	53	0
2018	117	3	6	135	149	86	2
2019	177	1	3	101	145	96	2
2020	167	1	5	129	187	71	1
2021	211	0	1	66	135	84	1
2022	209	0	1	102	91	39	0
2023	186	0	0	124	82	33	0
2024	217	0	0	132	144	55	0

The City also adopted its Stormwater Master Plan on September 21, 2015. This plan details the City of Rockford's entire Stormwater Program including goals and strategies for watershed improvement. A copy of the City's Stormwater Master Plan can be found at the following link: https://rockfordil.gov/274/Stormwater-Environmental-Team. The City of Rockford hired HR Green to update the Stormwater Master Plan which has been taking place throughout the year. Completion and adoption is expected in 2025.

Permit Parts II.A.2.a.vi and a.vii requires the City to adopt field guides for inspection of construction site BMPs and to establish minimum requirements for regulatory inspections. The City references the Illinois Urban Manual as well as IDOT's Erosion and Sediment Control Field Guide for Construction Inspections, as their primary field guides for doing inspections.

The City hosted its annual water pre-con training session via a Zoom webinar on April 4. This meeting was for contractors, consultants and City staff which included City of Rockford requirements when working in the Right-of-Way as well as reviewing erosion and sediment control requirements. There were approximately 84 participants in the webinar.

City staff participated in a limited number of stormwater related training opportunities. This demonstrates the City's compliance with Permit Part II.A.2.a.viii. Appendix G includes training activities and other aspects of stormwater management for conciseness.

The City is also required by the permit to respond to citizen complaints which are tracked in Table 8 and our inspection logs. We had no complaints related to construction sites in 2024.

Permit Part II.A.2.b requires the City to use a comprehensive master planning approach to minimize the discharge of pollutants from areas of development and redevelopment after construction is completed. Further, paragraph (i) of this section specifically requires the City to use the master planning approach to identify stormwater management issues on a watershed scale. While several watershed studies, assessments and analysis have been completed, see past annual reports for list, during the SWMP update HR Green completed a city-wide analysis using GIS and LIDAR technology to locate areas of wetness and to determine potential projects. These projects will be prioritized and listed in the Stormwater Master Plan. The City also provided funding towards an IEPA grant at Ken Rock park where stormwater was diverted from a concrete channel to a bioswale to improve stormwater runoff.

In 2016, preliminary sub watershed assessments were completed for Spring Lake by the neighborhood association and for Levings Lake by the Rockford Park District. A 319 Grant from IEPA was received for the Kent Creek watershed which encompasses Levings Lake. A green infrastructure project was installed in late 2022 to improve stormwater runoff from area agriculture fields. In addition, an IEPA grant was received for the Keith Creek watershed by Zion Development to complete a water quality analysis which the City partnered in.

Permit Part II.A.2.b.iv requests that the City monitor facilities during dry weather, conduct field surveys, as well as work with private owners of existing facilities and neighborhood organizations to assess performance. As referenced in Section 2.1, the City inspects all known detention basins during odd years and those with deficiencies are given notifications to make repairs (see Table 3). The City feels this section of the permit is addressed in section Part II.A.1.a-b and is not needed in future permits.

2.3 ROADWAYS

This addresses Parts II.A.3 and III.A of the Permit. This program is detailed in the Street Sweeping Standard Operating Procedures located in Part D-5 of the City's Stormwater Master Plan.

The City of Rockford began outsourcing street sweeping in 2011 and continues to do so. By doing this the City was able to save significantly on equipment costs and were able to utilize staff in other sections of the street department to be more efficient. The current street sweeping SOP details our current practices which have evolved over the years. Baseline miles vary from year to year due to roadway construction projects, new developments, annexations and intergovernmental agreements. In 2017, the City implemented an Automatic Vehicle Location (AVL) system in the contractor's streets sweepers to provide a more accurate mileage count.

Street sweeping records are tabulated in Table 9, and a yearly comparison is shown in Table 10. All street sweeping goals were met.

TABLE 9 CITY OF ROCKFORD 2024 STREET SWEEPING PROGRAM

Month	Quantity (tons)*	Street Sweeping Miles (Outside Central Business District)*	Central Business District Miles	Parking Lots (# Lots Swept)	Special Events/Bridge Decks
January	---	---	---	---	---
February	---	---	---	---	---
March	---	---	---	---	---
April	11	217 Avg	57 Avg	62	8
May	672	217 Avg	57 Avg	62	8
June	256	217 Avg	57 Avg	62	8
July	82	217 Avg	57 Avg	62	9
August	---	---	57 Avg	62	---
September	253	217 Avg	57 Avg	62	9
October	285	217 Avg	57 Avg	62	9
November	---	---	9	---	10
December	---	---	---	---	---
Total	**1,559**	**1,302**	**408**		

TABLE 10 YEARLY COMPARISON OF STREET SWEEPING OPERATIONS			
Year	**Quantity(tons)**	**Miles (Outside CBD)**	**Miles (CBD)**
2014	2597	1877	432
2015	1997	1513	344
2016	1813	1346	432
2017	2050	1490	442
2018	1660	1298	408
2019	2635	1453	408
2020	2051	1440	408
2021	2248	1551	432
2022	1,864	1,503	408
2023	2024	1,503	408
2024	1,559	1,302	408

Each year, prior to and through the winter season, the City analyzes its salt supply and the rate it is being applied during the operations. If needed, the amount of salt ordered, used and applied is adjusted. The City chooses to use salt for de-icing operations since using sand is harsh on the street sweepers and spreaders. Since the City is responsible for keeping the gutters, storm structures and ditches clean, using sand for de-icing operations puts undue burden on the City staff, budget and equipment as well as is counter-productive to stormwater management. Salt shortages may force the City to use sand but this is a last resort option. Table 11 provides details for the City's deicing program for the last ten years.

TABLE 11 CITY OF ROCKFORD DEICING PROGRAM						
Year	**Snow Accumulation**	**Salt Used**	**Salt/Snow**	**Brine Mix**	**Sand Used**	**Salt & Sand Mix**
2014	47.5 Inches	17,808 tons	378 tons/in.	60,000 gal.	0	0
2015	43.6 Inches	12,091 tons	277 tons/in.	40,000 gal.	0	0
2016	28.8 Inches	12,105 tons	420 tons/in.	61,600 gal.	0	0
2017	12.3 Inches	8,064 tons	656 tons/in.	35,861 gal.	0	0
2018	43.8 Inches	12,423 tons	283 tons/in.	50,635 gal.	0	0
2019	46.8 Inches	12,726 tons	272 tons//in.	38,704 gal.	376 tons	0
2020	24.7 Inches	10,659 tons	432 tons/in.	27,664 gal.	0	0
2021	30.1 Inches	10,799 tons	359 tons/in.	41,651 gal.	0	0
2022	24.1 Inches	11,021 tons	457 tons/in.	33,798 gal.	0	0
2023	30.6 Inches	8,179 tons	267 tons/in.	15,197 gal.	0	0
2024	26.4 Inches	7,263 tons	276 tons/in.	19,986 gal.	0	0

The City did purchase a new brine tank and relocated it to a position farther away from existing inlets. The City is also reviewing options for upgrades at the City Yards which will include relocation of the spoil pile to a more suitable location and better protection for salt storage.

FLOOD CONTROL

This section addresses Parts II.A.1.d and II.A.5 III.A of the Permit.

2.4.1 NARRATIVE EVALUATION

In the aftermath of flooding events in recent years, the City has planned and began building multi-stage flood control structures in the Harmon Park neighborhood. The City has acquired and demolished several properties in the Harmon Park area and has begun building a series of detention basins. A regional detention basin was built in Harmon Park (3.54 ac.) in 2016, and the next two upstream basins were constructed in 2018. In 2022, the City installed four additional basins in the next phase of this project. These basins were installed between Colorado and Sexton Avenues (see Appendix D, Harmon Park Exhibit). Additional phases will be installed in future years. The City has completed studies for other drainage concerns as well and intends to implement those projects as funding becomes available.

The City has an ongoing drainage improvement program as part of its Capital Improvement Program (CIP). The City incorporates stormwater requirements within its Subdivision Ordinance and Stormwater Management Ordinance. Table 12 shows projects completed under CIP and Table 13 shows small projects completed with CIP funds.

TABLE 12 FLOOD CONTROL, DRAINAGE PROJECTS and BANK STABILIZATION COMPLETED IN 2024

Watershed	Project	Tonnage Removed	Description
Buckbee	Buckbee Channel Repair	NA	Repaired approximately 500’ of concrete channel damaged by severe storms in mid-July.
Spring	Applewood Lane Box Culvert	NA	Installed gabion baskets to prevent erosion

See Appendix E for a list of past years Flood Control, Drainage and Streambank Stabilization Projects.

In 2019, the City stabilized approximately 1,600 feet of eroding streambank along Keith Creek. This project included the removal of two bridges and because of space issues a combination of pilings, rip rap and vegetative stabilization with geogrids. City staff have continued to monitor this area to ensure vegetation is established and no washouts have occurred. Additional studies are in progress for future projects along the Keith Creek corridor.

2019 Keith Creek Bank Stabilization

In 2022, the City stabilized approximately 1,000 feet of the Buckbee Channel south of Yale Drive which included relocation of sanitary, phone and electrical lines.


Buckbee Channel Bank Stabilization

In 2020, the City of Rockford Public Works, Engineering Division started Phase 1 of the Alpine Dam Rehabilitation Project. A new gate actuator was installed on the intake tower as well as a radar water level gage, a doppler radar moisture sensor, Phase 1 of this project also consisted of the removal of graffiti from the existing concrete spillway as well as from the access bridge and intake tower. Also, multiple repairs were made to the concrete joints in the overflow spillway and chute and the stilling basin was completely cleaned out. Electrical upgrades, CCTV cameras, and a software package to control and capture data from all of the new equipment. With the addition of this new equipment the Engineering Division can now monitor the dam and activate the flood gate remotely if needed. Phase 2 of this project was approved by IDNR in 2023 and the City was able to get a grant to partially fund the project. This project went out to bid in December of 2023 and was completed in 2024. Phase 2 improvements included: bolstering structural integrity of the existing spillway by installing one foot of concrete over the entire spillway floor and walls as well as the chute and stilling basin, modernization of the current stilling basin by reconstructing velocity dissipation structures, replacing the original collapsed clay drain pipe and construction of an auxiliary earthen spillway adjacent to the existing concrete spillway in order to meet modern engineering standards and allow the dam to maintain structural integrity by creating a secondary release point for flood waters.


Alpine Dam Upgrades before Phase 2 Upgrades *Alpine Dam Upgrades after Phase 2 Upgrades*

In 2022, the City of Rockford began installation of a weather station and a radar level sensor at the Page Park Dam. These upgrades to the dam will allow city staff members to remotely monitor the water levels at the dam as well as receive and collect live streaming weather data. This install, including cameras, were completed in 2023 along with maintenance on the Page Park Dam structure which was recommended from IDNR and ACOE inspection reports.

The City also continued utilizing staff and resources to improve local drainage by clearing channels of debris and accumulated silt that were known to restrict conveyance. Table 13 tabulates these projects completed by City staff.

TABLE 13

SILT AND DEBRIS REMOVAL FROM STORMWATER STRUCTURES IN 2024

Date	Watershed	Address (Type)	Silt/Debris Removed	Operation
11/14/23	Kent	Overland Trail & Chisolm	273 Ton	Removal of vegetation & Sediment
2/19/24	Keith	South Alpine Rd. @ Alpine Park	245 Ton	Sediment Removal from box culvert
1/4/24	Keith	Alpine Dam Trash Rack*	20 Ton	Remove debris from trash rack
2/5/24	Keith	Arden Ct. Basin Trash Rack	0.1 Ton	Removal of branches & garbage
3/1/24	Keith	Hunter & Charles	294 Ton	Sediment removal from concrete channel in Keith Creek
4/2/24	Keith	Arden Ct. Basin Trash Rack	0.1 Ton	Removal of branches & garbage
6/25/24	Keith	Arden Ct. Basin Trash Rack	0.1 Ton	Removal of branches & garbage
6/26/24	Buckbee	Kishwaukee & Sandy Hollow Culvert*	1Ton	Removed branches & garbage with clam
6/26/24	Spring	Delcy & Brookview	0.2 Ton	Removal of sticks & trash
7/3/24	Keith	Charles St. Schnucks	1 Ton	Removal of branches & garbage
7/3/24	Buckbee	Taft Road culvert	1 Ton	Removal of branches & garbage
7/9/24	Madigan	Trainer Road Box Culvert	NA	Repair of concrete headwall that was undermining
7/15/24	Kishwaukee North	5601 Sandy Hollow	NA	Emergency repair of culvert which failed in severe storms
7/17/24	Buckbee	Kishwaukee & Sandy Hollow Culvert*	1Ton	Removed branches & garbage with clam
7/17/24	Keith	Arden Ct. Basin Trash Rack	0.2 Ton	Removal of branches & garbage
7/17/24	Keith	Charles St. Schnucks	3 Ton	Removal of branches & garbage
7/18/24	Spring	Delcy & Brookview	0.5 Ton	Removal of sticks & trash
7/18/24	Keith	Rote & Eden Trash Rack	0.5 Ton	Removal of trash & debris
7/18/24	Spring	Kings Highway Trash Rack	0.6 Ton	Debris removal
7/18/24	Sinnissippi	Parkview Ave. Trash Rack	1.1 Ton	Removal or leaves & sticks
8/5/24	Spring	Bradley Rd, Boscobel Ct, Applewood Lane	NA	Stormsewer repair at 3 locations
8/6/24	Keith	Alpine Dam Trash rack*	120 Ton	Removal of sediment & debris
8/20/24	Keith	Morsay Dr. & Fairview Box Culvert	276 Ton	Sediment removal from box culvert
8/20/24	North Main	1925 Elmwood Rd.	29 Ton	Remove sediment build up and vegetation to improve drainage along Elmwood Rd.
8/27/24	Buckbee	Upland Dr. Box Culvert	0.2Ton	Removed trash & debris from culvert
8/29/24	Buckbee	Kishwaukee & Sandy Hollow Box Culvert *	465 Ton	Removal of sediment build-up
10/7/24	Kishwaukee North	Sandy Hollow Rd. & Lonergan	1,330 Ton	Remove sediment build up and vegetation to improve drainage
10/10/24	Madigan	Newburg & Phelps	NA	Emergency repair of sinkhole in box culvert
10/15/24	Buckbee	Reed & 20th St.	2 Ton	Reshaped drainage area
12/4/24	Keith	Charles St. McDonald's	36 Ton	Sediment removal from creek
12/17/24	Keith	8th St. & 3rd Ave.	NA	Repair of collapsed stormsewer

*Floatable locations per permit

The City uses the Greater Rockford International Airport rain gauges to determine if a qualifying rainfall event occurred per our standard operating procedures. Though the airport did not have any qualifying events a severe storm went through parts of Rockford on July 13-14. According to the National Weather Service this storm produced 6.3 inches of rain in approximately four hours resulting in widespread flooding and a federal disaster declaration (FEMA-HMGP-4819). City staff assisted in completing damage assessments as well as reviewing drainage complaints that were called in to the City.

In 2024 (or in recent years), the City of Rockford also achieved the following:

- The City of Rockford and the Rockford Local Development Corporation (RLDC) acquired and demolished over 115 properties as well as relocated the residents along Keith Creek in an ongoing effort to restore the floodplain and reduce future flood damage. See Appendix E for a detailed Keith Creek Mitigation Summary.
- Continued efforts to remove trees, brush and silt from creeks and drainageways. See Tables 12 and 13 for current periods data & Appendix E for past years.
- The City of Rockford was approved for enrollment in FEMA's Community Rating System (CRS) which allow property owners required to have flood insurance to receive a 15% discount on their premiums. Residents with flood insurance began receiving the discounts on October 1st.
- Trash racks were replaced at Alpine Dam in 2016. In 2018, the City entered into an Engineering Agreement with HNTB to provide plans to rehabilitate Alpine Dam which started in 2020. Phase 2 was completed in 2024.
- Permit approved floatable locations continue to be cleaned twice annually as other stormwater structures and channels.
- Ongoing maintenance of storm sewer system including street sweeping, inlet cleaning, inlet repairs, storm pipe cleaning and storm pipe repairs.
- In 2016, the Rock River Water Reclamation District constructed an overflow basin at their facility. This private basin included a berm along the Rock River that has been classified as a dam.
- In 2016, as part of the construction of the new Mercy Health Systems Hospital, a detention basin was constructed offline of the upstream end of the north branch of Keith Creek. This basin will also be part of the regional detention system that includes Loves Park, City of Rockford and Winnebago County.
- The City's Stormwater Master Plan was completed and approved by the City Council on September 21, 2015. This plan includes goals and strategies for the Stormwater Program as well as Standard Operating Procedures. This plan is scheduled for review and update in 2023 with approval in 2025.

Permit Part II.A.4.a requires the City to evaluate the feasibility of retrofitting the City's existing flood control devices to provide additional pollutant removal. The Alpine Dam trash rack was replaced in October of 2016 and the bottom of the basin was planted to native grasses in 2015 to allow for additional removal of pollutants. The Page Park trash rack currently meets Army Corps of Engineers and Illinois Department of Natural Resources requirements plus the bottom of that basin is also planted to native species.

During the revision of the Stormwater Master Plan, which is currently taking place, our consultant evaluated all City owned basins for potential retrofitting as required by the permit. Once the plan is approved those retrofitting evaluations will be reviewed.

Though not City flood controlled structures, the City has installed trash racks several locations over the years (see past reports for locations) which are privately maintained. The City also has a trash rack located at Kishwaukee Street and Sandy Hollow Road at the southeast (Buckbee Creek) drainage ditch which is one of its permitted floatable locations. Past retrofit updates for other City owned basins can be found in Appendix C.

The permit condition at Part II.A.4.b requires the City to coordinate regional flood control planning with surrounding communities. A regional detention facility, the I-90/Riverside detention pond, was constructed in 2011 through a public-private partnership led by the Village of Loves Park, but also included the City of Rockford, Winnebago County, Boone County, and Rockford Memorial Hospital. Regional detention has been constructed during the construction of Mercy Rockford Health System's east side campus as well as Mercy Way. The City, Winnebago County and other area jurisdictions worked together to complete a study of the Buckbee and Madigan Creek watersheds with an aim of preparing an action plan for nonpoint source pollution control. Although Cherry Valley and Rockford Township each completed improvements projects in those watersheds, the committee continues to seek ways to obtain funding to complete projects. Though not a surrounding community but a City partner, the Rockford Park District aided in the construction of a new regional detention facility in the southeast/Buckbee Creek Watershed (Harmon Park Detention Basin Phase 2). In another regional effort, FEMA funded a hydrologic and hydraulic study to update flood maps of the lower Rock River including large portions of the City's MS4 area. Revised floodplain maps resulting from this study were approved in February of 2016. The Illinois State Water Survey is presently completing a floodplain study of the Kishwaukee River Watershed.

The City continues to work with the School District to address any flooding issues as they renovate and/or build new facilities.

Permit Part II.A.4.c requires the City to investigate ways to significantly reduce "nuisance" flooding. Under the Inlet Reconstruction Program, City crews and contractors continued to reconstruct problem inlets and manholes. Table 3 shows the number on inlets repairs and replacements this year and in years past we well as structures and stormsewer that have been deducted (cleaned). The City continues to clear and repair creek channels and drainageways. Completed projects in 2024 can be located in tables 12 & 13 and past years projects are located in Appendix E.

In late 2015, the City began looking at options in the Gregory Heights Subdivision (Fieldcrest Drive) to address nuisance flooding in that area and approved engineering plans. Phase 1 of the project was completed in 2021 and Phase 2 was completed in 2022. See Appendix D for details.

Drainage studies were completed for Kylemore East, and Halsted Rd. and Searles Ave. to consider future projects in those areas if necessary. In 2023, studies for drainage issues at Ed Vera & Jamestown Dr. and the Grassridge Rd. detention basin were completed and in 2024 repairs were made to the Grassridge Road detention basin. In addition, an IEPA 319 grant was submitted to address the Ed Vera & Jamestown drainage issue and a Green Infrastructure Grant Opportunity (NOFO# 2025 GIGO) was also submitted to IEPA to convert approximately 2,000' of concrete channel to green infrastructure. We are awaiting the results of those grant submittals.

The City also submitted for an additional $1,600,000 in buyout funds from the Illinois DNR and is reviewing options through IEMA/FEMA for additional buyouts funds for properties that flooded during the July Storms.

A separate jurisdictional body, the Rockford Park District has a sustainability approach to stormwater management in its development, construction, operation and repair as well as replacement of parks and facilities. Recent redevelopment at Sinnissippi Park on Rockford's riverfront included the installation of pervious pavers in the parking lot, green roof and bioswale at the Nicholas Conservatory and Gardens, as well as the installation of native plant buffers along the riverfront to filter runoff at the Eclipse Lagoon. In 2022, they completed a green infrastructure project as Levings Lake to reduce the amount of sediment laden agricultural runoff entering the Lake. In 2023, they completed drainage improvements at Sinnissippi Park. The Park District also planted native grasses in the basin of Alpine Dam to improve water quality and to absorb the excess water that saturates the park after a heavy rain events.

2.5 PESTICIDE, HERBICIDE AND FERTILIZER (PHF) APPLICATION

This section addresses Parts II.A.5 and III.A of the Permit. This program is detailed in the Pesticide, Herbicide and Fertilizer Applications Standard Operating Procedures located in Part D-6 of the City's Stormwater Master Plan.

On October 31, 2011, the City of Rockford was issued an NPDES Permit for pesticide use (ILG870147). This permit is issued to operators who discharge to waters of the State from the application of biological pesticides that leave a residue. The City's activities in the areas of weed control, mosquito control, and other areas are subject to the limitation in this permit. The City of Rockford has sent letters to area applicators informing them of their obligations to comply with this regulation. This permit was renewed in 2016 and, though the City has requested renewal of this permit in 2021, IEPA has informed us they are working with USEPA regarding permit updates and we are to continue operating under our current permit.

The City monitors the use and application of PHF through the Public Works Department and its contractors. The City also monitors its stormwater and streams for nutrients and the aquatic effects thereof. Consistent with State regulations and label instructions, only City personnel that are licensed by the State are permitted to apply PHF, but contractors for the Streets Division apply most herbicides used on City facilities. All herbicides and pesticides are mixed and applied at a rate not to exceed the recommended amounts on the Safety Data Sheets.

Based on present conscientious practices, the City has not seen the need to modify its ordinances or to initiate actions to control the use of PHFs on City lands. Each year, the Street Maintenance Division contractors apply herbicides to raised medians, paved ditches and sidewalks. In addition, cut brush and tree stumps are treated along areas being cleared to minimize regrowth. Table 14 lists the herbicide products used in 2024 by the Street Maintenance Division.

TABLE 14 CITY OF ROCKFORD HERBICIDE USAGE

Product & Packaging	Amount Used (gal.)	Usage
Ranger pro – 2.5 Gal jug	107.5	Glyphosate 41% Ai (nonselective)
Flumishield 64 oz bottle	3	Flumioxazin 42% Ai (residual preemergent)
AquaMaster – 2.5 gal jug	40	Glyphosate 53.8% Ai (aquatic approved nonselective)
Triclopyr 2.5 gal jug	12	Triclopyr NoTriclopyr((3,5,6,-trichloro – 2 –pyridinyl) oxy) Acetic acid, Butoxyethylester 13.6 % Ai (broadleaf specific)
Signal colorant – 1 gal jug	0	No hazardous chemical
Treeage – 1 liter bottle	10	Emamectin Benzoate

The following Street Division employees were licensed in 2024: Anthony Giacomazzo, Brian Jacobi, Brian Peters, Kyle Smith, Clifton Streeter, Lucio Aldano, and Taylor Hennelly.

The City has printed and continues to distribute an educational brochure on PHF use around water bodies. The brochures are available to the public in the lobby of City Hall, the Department of Public Works and at special events.

2.6 ILLICIT DISCHARGES AND IMPROPER DISPOSAL

This section addresses Parts II.A.6 and III.A of the Permit. This program is detailed in the Illicit Discharge Detection and Elimination Program Standard Operating Procedures located in Part D-7 of the City's Stormwater Master Plan.

In 2015, the Rockford City Council approved its Stormwater Management Ordinance (Ord. # 2015-093-O) which includes requirements to prevent, control and reduce stormwater pollutants by the use of best management practices. This revised ordinance demonstrates compliance with Part II.A.7 of the permit.

Public Works staff regularly performs inspections for illicit discharges and improper disposal. Table 15 lists the number of Illicit Discharge Detection and Elimination (IDDE) Investigations as well as yearly comparisons. When possible, the stormwater team educates residents on the adverse effects this has within our storm systems but some cases were sent through the code enforcement process.

Supplemental dry weather inspections are performed on all outfalls during even years and as needed if stormwater quality monitoring indicates a need for further evaluation.

The Stormwater Team believes the community, and other City staff, are better educated on how to recognize and report possible illicit discharges which has led to an increase in investigations.

TABLE 15

ILLICIT DISCHARGE DETECTION AND ELIMINATION YEARLY COMPARISON

Year	Number of Complaints / Reports	# Illicit Discharges	# Unknown	Non-Illicit Discharges	Number Submitted to Code Enforcement	HazMat Responses by Rockford Fire Dept.
2013	25	Not Determined	Not Determined	Not Determined	0	4
2014	35	15	6	14	0	2
2015	45	24	5	16	2	8
2016	36	13	10	13	2	3
2017	12	9	0	3	1	1
2018	26	13	3	9	2	6
2019	39	28	8	3	8	0
2020	41	10	8	13	0	1
2021	12	9	0	3	0	1
2022	63	24	14	25	2	3
2023	34	23	9	2	1	4
2024	32	15	3	14	0	1

The City has completed outfall inspections during even years since 2014 with the most recent being in 2024. The basic procedure to complete an inspection at each outfall is to enter or update data, take a picture of the outfall and, if necessary, mark location on the map. Outfall data includes a description of the outfall (e.g., pipe material, diameter) and a description of physical indicators of potential illicit discharges for both flowing and non-flowing outfalls. For outfalls with indicators, an illicit discharge investigation will be implemented as indicated in the Illicit Discharge Detection and Elimination Standard Operating Procedures. Generally, there are an increased number of investigations during the year outfall inspections are completed.

With every new cycle of outfall inspections, the City fine-tunes the data which sometimes results in the removal or an addition of outfalls. The removal of outfalls from the database has been typically due to them being roof drains. In 2024 staff worked with the Rockford Fire Department to utilize their drones to complete outfall inspections along the Rock River. We feel using the drone is safer for staff versus walking along the riverbank or using boats. Table 16 shows the results on the outfall inspections since 2018.

TABLE 16
BIENNIAL OUTFALL INSPECTION RESULTS

Year	High Priority	Medium Priority	Low Priority	No Issues	Number of Outfalls Inspected
2018	NA*	NA*	NA*	NA*	1166
2020	40	31	87	962	1120
2022	6	59	221	999	1285
2024	2	57	253	985	1297

*Not Available

High priority designations indicate a possible life safety concern and the City will take action to rectify the issue. Medium and low priorities are of minimal concern and City will consider future projects to address.

2024 Kent Creek North Branch Oil Discharge

In April of 2024 our Stormwater Senior Engineering Technicians were performing biennial outfall inspections and noticed an oily sheen along the western bank of the north branch of Kent Creek. After further investigation, our Stormwater team found multiple locations where oil laden groundwater was being discharged into Kent Creek. We also noticed a strong crude oil odor coming from the bank of the creek as well. We contacted Fehr Graham, a local environmental and engineering consultant, to take samples from the discharge locations. Their initial PID reading at the point of discharge showed between 5 – 15 ppm for VOCs. Fehr Graham collected multiple soil samples from the creek bank and sent them off to a lab to be tested for VOCs, Semi VOCs, Total Petroleum Hydrocarbons, and Extended Range Organics. These tests were needed to identify the type of oil present in the discharge. Based on historical data from the area, our best guess for the source of the oil was either a spill from a rail car or a discharge from residual oil deposits on the former ComED/Nicor MGP site that was located along Avon St. Once we had a chance to analyze the results from Fehr Graham, we noticed a very high reading for Total Petroleum Hydrocarbons at the southernmost sample site adjacent to the location where the initial discharge was first noticed. The TPH at that sample site was 4360 ppm which was well above the threshold of 2000 ppm for subsurface soils. The samples also indicated the presence of Benzo(a)pyrene which is a product of fossil fuel combustion which led us to believe that the oil was being discharged from the former ComED/Nicor MGP site. After analyzing the results, we contacted the IEPA who sent a team out to meet with us at Kent Creek. After investigating the site, the IEPA issued Notices of Violation to The City of Rockford, CN Railroad, and ComED/Nicor. The City of Rockford has responded to our Notice of Violation by explaining that although we own the land along the bank of the creek where the discharge is occurring, it is our belief that the oil discharge has migrated through our property and the CN Railroad property originating from the former ComED/Nicor MGP site. Our Stormwater Team along with our Brownfields Redevelopment Specialist has been maintaining an observation log of the site as well as installing multiple oil absorbent booms in an attempt to mitigate any further discharge into Kent Creek. The City of Rockford is currently waiting on the IEPA to follow up after their meetings with all parties involved to discuss the Notice of Violation.

Observed oily discharge entering Kent Creek

The City, in cooperation with the Illinois EPA and Rock River Water Reclamation District, collects household hazardous wastes (HHW) as well as PHF, used tires and used motor oil. Aerosols, corrosives, oxidizers, solvents, oil-based paints, latex paints, waste oils, pesticides, batteries, fluorescent lamps and insulin disposal service are all accepted. Radioactive wastes, compressed gases and explosives are not accepted. The collection program is available to all city residents and is publicized on City's website (https://www.rockfordil.gov/492/Household-Hazardous-Waste-Disposal). A summary of 2024, and past years, collections can be found in Table 21. The site was located adjacent to Keith Creek where it was periodically at risk of being flooded. In 2024 the facility was relocated to a more convenient location away from Keith Creek.

2.7 SPILL PREVENTION AND RESPONSE

Part II.A.7 of the Permit requires the City to implement a program to prevent, contain and respond to spills that may discharge into the MS4. The Rockford Fire Department is the "First Emergency Responder" in the City. This program is detailed in the Hazardous Materials (Spill Prevention and response) Standard Operating Procedures located in Part D-8 of the City's Stormwater Master Plan. In compliance with Part II.A.7.a, the Fire Department's records were searched for all incidents of a material spill that may have entered the storm sewer system within the MS4 service area (personal communication, Captain Erik Meyer, Rockford Fire Department). In 2024, there were four reportable spills encountered by the Fire Department that could have entered the storm sewer system within the MS4 service area (Table 17). In 2014, the Fire Department updated the Hazardous Materials Standard Operating Procedures within the 2014 Emergency Operations Plan.

Permit Part II.A.7.b requires the City to include a summary of spill prevention activities in the Annual Report. Currently, most industries are responsible for their own training and education. Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training is required by most industries, and spill containment/prevention procedures have been developed by most industries. The Fire Department visits industrial facilities to develop a Pre-fire Plan Survey which includes information such as egress/ingress routes, location and types of chemicals on-site, combustible and flammable materials, special hazards, fire suppression methods, facility maps, emergency contact information, etc. The City has an active recycling campaign, thereby indirectly removing possible spill material from the environment. Overall, the City has not experienced many industrial spills.

Table 17
HAZARDOUS MATERIAL RESPONSES BY THE ROCKFORD FIRE DEPARTMENT

Date	Incident #	Address	Comments	Quantity Released
1/3/24	24-208	Beltline and Falcon	Semi-tractor saddlebag damaged after single vehicle crash. Leak was on roadway with some spillage onto gravel shoulder	10-15 gallons
6/19/24	24-15364	Highcrest & Pleasant View	Vehicle crashed into guardrail and leaking gasoline onto the street	Unconfirmed. Under 10 gal
9/26/24	24-25123	1925 Kishwaukee	See narrative below	
12/23/24	24-33474	2833 Echo St.	Vehicle leaking gas in parking lot	1 gallon

Incident # 24-25123 - Rockford Fire units were dispatched for a muriatic acid chemical leak at 1925 Kishwaukee Street. The facilities maintenance supervisor stated the storage unit held around 2800 gallons but the quantity of the product at the time of the leak was unknown. Rockford Hazardous Materials Team performed reconnaissance inside the building and determined that the leaking product was contained to the overflow containment system within the building. The reconnaissance team was unable to locate the location of the leak. Off-gassing of the product created a plume in the area of the release. RPD and City of Rockford Public Works assisted the operation by providing traffic control at major intersections surrounding the incident and RPD District 1's UAS was deployed to monitor the plume at various times throughout the incident. Area businesses were contacted and advised to shelter in place and to turn off HVAC units. An aerial master stream was deployed to stifle the plume but was discontinued after it proved to be ineffective. After discussions with Command Staff and company personnel, it was decided that the incident would operate in a defensive mode until the contracted clean up crew's arrival. A 10-block radius around the incident was monitored during the incident with no abnormal finding. Wind speed and direction provided throughout the incident from 911 via Rockford Airport Authority. AZZ requested an excavator to create a soil berm at the foundation of the overflow containment system. The excavator also created a ground reservoir to contain any runoff through the berm. Pools of water around the location of the aerial master stream were evaluated and found pH levels to be within normal limits. Rockford Fire remained on scene until SET Environmental clean-up company arrived to mitigate the incident.

City staff also serves on the Winnebago County Local Emergency Planning Committee (LEPC), which is made up of local officials who are required to develop a local chemical emergency response plan and to provide public education and information.

2.8 INDUSTRIAL AND HIGH RISK RUNOFF

This section addresses Parts II.A.8 and III.A of the permit. This program is detailed in the Industrial High Risk Runoff Program Standard Operating Procedures located in Part D-9 of the City's Stormwater Master Plan.

The City of Rockford continued its Industrial and High Risk Runoff Facility Inspection Program (IHRRI). The City made a concerted effort to broaden the database to assure better representation of the locations of industries and other potential high-risk runoff facilities within City limits. These databases provide likely locations for industrial as well as high-risk runoff and are currently the basis for future inspections. The City then prioritized these facilities based on potential for stormwater pollution. The City has a database of over 5,000 industrial and commercial facilities, restaurants, fueling stations and businesses. The City reviews and reprioritizes these facilities annually and is committed to inspecting all high priority facilities and 50% of the medium priority facilities each permit term. Low priority facilities are only inspected when complaints are submitted. Inspections can also be triggered by citizen complaints, City crew field reports, stormwater monitoring data reviews or other information suggesting a need for inspections or monitoring. Table 18 indicates the number of industrial and commercial facilities in Rockford and their priority ranking.

TABLE 18

INDUSTRIAL FACILITY DATABASE & PRIORITY RANKINGS

Year	# High Priority Facilities	% High Priority Facilities Inspected (during Permit term)	# Medium Priority Facilities	% Medium Priority Facilities Inspected (during Permit term)	# Low Priority Facilities
2015	329	24% (Year 1)	431	7% (Year 1)	5,822
2016	329	44% (Year 2)	428	20% (Year 2)	6,570
2017	295	71% (Year 3)	470	29% (Year 3)	5,790
2018	299	90% (Year 4)	412	44% (Year 4)	4,776
2019	283	100% (Year 5)	411	56% (Year 5)	4,772
2020	284	17% (2015 permit)	416	11% (2015 permit)	4,759
2021*	267	16% (Year 1)	412	6% (Year 1)	4,756
2022	264	44% (Year 2)	411	24% (Year 2)	4,754
2023	379	48% (Year 3)	397	43% (Year 3)	4,536
2024	370	65% (Year 4)	362	67% (Year 4)	4,539

*Start of current permit term

Our database updates are based on visual reviews of industrial parks as well as online research to determine new and closed facilities for medium and high priority facilities.

The permit requires the City to review and evaluate industries to ensure they do not have unpermitted discharges entering the City's storm system. The Illinois EPA is responsible for implementing industrial stormwater permitting and for compliance with the associated SWPPPs. No SWPPPs are sent to the City for review by the permittees, however, during inspections City staff request to see any SWPPPs, and other records as required by the IEPA Industrial Stormwater permit.

Table 19 provides a yearly comparison for industrial stormwater inspections. The City is on schedule to meet the inspection goals set forth on the standard operating procedures for this permit cycle.

TABLE 19

INDUSTRIAL HIGH RISK RUNOFF STORMWATER INSPECTIONS YEARLY COMPARISON

Year	Number of Inspections			# Requiring Follow Up Inspections	# Submitted to Code Enforcement
	High	Medium	Low		
2014	78	41	3	67	2
2015	78	32	13	92	1
2016	65	56	6	61	1
2017	66	48	3	30	1
2018	59	45	1	49	0*
2019	58	51	2	35	0
2020	49	47	0	9	0
2021	42	26	10	16	0
2022	74	73	0	25	0
2023	64	72	1	22	1
2024	61	70	2	17	2

* One site was under an IEPA enforcement action involving site clean-up.

The majority of facilities requiring follow-up inspections were due to lack of permitting with regards to the Illinois EPA's industrial stormwater program. Many facilities also had the wrong Standard Industrial Classification (SIC) based on their operations, which in most cases indicated they did not need permitting. Two Kentucky Fried Chicken locations were submitted to code enforcement for allowing grease to enter the inlets on their properties which ultimately drains to the City's storm system. These were owned by the same company and were fined $1,500. Both these facilities have since closed.

The Rockford City Yards is currently going through upgrades including demolition of old structures, Installation of new curb, gutter and stormsewer and resurfacing on the west side of the site. These upgrades should improve the efficiency on the site and reduce the risk of contaminants running off the site.

2.9 PUBLIC EDUCATION, POLLUTION PREVENTION AND GOOD HOUSEKEEPING

This section addresses Parts II.A.9 and III.A of the permit. This program is detailed in the Stormwater & Environmental Education Standard Operating Procedures located in Part D-10 of the City's Stormwater Master Plan.

The City of Rockford continues to expand programs on public education, pollution prevention and good housekeeping. The City has several brochures available for the public and are available to speak at any public event. Stormwater staff did review the stormwater program with the entire engineering division of public works in January 0f 2023.

Annually the City distributes hundreds of pamphlets or brochures, which includes the following titles:

-Yard Waste
-Friendly Landscaping
-Recycling
-Residential Deicing
-Pet Waste
-Illicit Discharge
-Hazardous Materials
- Pesticide, Herbicide & Fertilizer
- Fats, Oils & Grease
- Erosion and Sediment Control
- Concrete Waste
- Stream Corridor Protection and Maintenance
- Rain Barrels
- Rockford's Stormwater Management Program

All of these brochures focus on protection of water quality and are available to the public. In 2024 these brochures were reviewed and updated as needed.

The City of Rockford continues to provide information on the Stormwater and Environmental webpage on the City of Rockford website. This information can be found at: https://rockfordil.gov/274/Stormwater-Environmental-Team. This Stormwater page provides stormwater education on a variety of topics including, but not limited to:

Stormwater Master Plan
Erosion and Sediment Control
Industrial High Risk Runoff
Illicit Discharge Detection and Elimination
Minimizing Pollution Around Your Home
Watershed Assessment Data
Reporting links for complaints
Information about your property (floodplain, soils types, wetlands, etc.)

These demonstrate the City's compliance with the permit condition to publicize, promote and facilitate improved stormwater management in Rockford.

Stormwater staff once again participated in the 2024 Academy Expo as well as the Rockford Police Department's National Night Out events.

In addition, the City of Rockford hosted three community engagements and one virtual meeting for the Stormwater Master Plan revision where residents could review the draft document and provide any additional input. City Staff also participated in an Earth Day clean up along a section of Keith Creek known to collect a lot of trash and debris.

2024 Public Works Display for National Night Out

Recycling data for the last few years is found in Table 20 and suggests that residents are recycling a consistent portion of Rockford's solid waste stream.

TABLE 20: CITY OF ROCKFORD RECYCLING PROGRAM

Year	Refuse(tons)	Recycled (tons)	Yard Waste (tons)	Demo (tons)	Portion Diverted from Landfill*
2015	47,139	8,229	12,470	7,485	31%
2016	48,609	7,674	12,776	8,662	30%
2017	51,110	6.969	11,627	3,904	27%
2018	49,985	7,638	12,719	5,794	29%
2019	51,357	7,695	12,931	1,610	29%
2020	56,872	7,846	11,801	6,361	24%
2021	51,332	8,496	7,038	7,116	21%
2022	56,093	7,687	9,109	2,750	26%
2023	50,498	6,978	9,317	434	24%
2024	55,015	9,347	7,762	160	24%

Because of regulations banning all electronic waste (E-Waste) from landfills the City of Rockford has an agreement with Keep Northern Illinois Beautiful, 4665 Hydraulic Road in Rockford, to have E-Waste dropped off at their location during their business hours. The City also allows residents to place electronic devices smaller than 2 feet by 2 feet in the recycle bins plus there is an E-Waste bin at the City Yards for staff use. Table 21 shows a summary of those collections.

Table 21: ANNUAL E-WASTE COLLECTION DATA	
Year	**City of Rockford Electronic Collections**
2019	12,262 lbs.
2020	32,217 lbs.
2021	44,538 lbs.
2022	36,917 lbs.
2023	36,772 lbs.
2024	21,392 lbs.

The City cooperates with the Illinois EPA for the collection of household hazardous wastes (HHW). This collection site is located at the Four Rivers Sanitation Authority, 3333 Kishwaukee Street. The City has renewed this service with Clean Harbors to continue for the next several years. Table 22 provides a yearly summary of the HHW collections. There was a slight decrease in the number of pounds collected, which can be attributed to no longer accepting latex paint, in effect since November in 2015.

TABLE 22: SUMMARY OF HOUSEHOLD HAZARDOUS WASTE (HHW) COLLECTION SITE			
Year	**Pounds of HHW Collected**	**# Containers/Drums**	**% Vehicles Rockford Residents**
2015	440,855	1,584	75%
2016	325,694	1,383	72%
2017	261,126	1,149	74%
2018	239,082	1,048	73%
2019	245,369	1,039	72%
2020*	237,366	1,091	71%
2021	256,223	1,169	71%
2022**	209,274	830	72%
2023	195,944	979	64%
2024***	131,803	797	62%

* Facility temporarily closed due to COVID-19 shelter in place restrictions
** Reduced drum count due to fire at waste contractor's disposal facility
***Facility closed for three months for site improvements

Table 23 shows annual date for used tire collections.

TABLE 23 ANNUAL USED TIRE COLLECTION DATA	
Year	**City of Rockford Used Tire Collection**
2018	12,667
2019	9,951
2020*	7,747
2021	9,399
2022	9,023
2023	10,494
2024**	8.077

* Facility temporarily closed due to COVID-19 shelter in place restrictions
****** Facility closed for three months for site improvements

The City of Rockford stormwater team partnered with the Severson Dells Education Program to visit schools throughout the City to teach environmental education. They have seen 531 students at several schools as well as several ESL (English Second Language), Deaf/Hard of Hearing, and PLUS (Special Ed) classes at these schools, too.

Students mapped out the water cycle, made predictions about their water usage, participated in hands-on Enviroscape Model demonstrations, and learned action steps to protect our city's water resources.

This program had an overwhelmingly positive response from teachers who gave the program top ratings for quality of instruction and content.

Severson Dells designed a full-color, 24-page activity book called "Water in Your World" that highlights additional action steps, in-depth processes, and exciting trivia. They distributed over 500 coloring books during the presentations. Based on its success in the first year the City intends to continue the partnership with Severson Dells and hopes to expand the programs reach in future years.

3.0 SWMP FISCAL MATTERS, EFFECTIVENESS AND OTHER ISSUES

3.1 ANNUAL EXPENDITURES

City expenditures for 2023 for SWMP activities are tabulated below. Table 24 also includes budgeted costs for 2024.

TABLE 24 ANNUAL FINANCIAL EXPENDITURES

Item(s)	Budget Source	2019 (Actual)	2020 (Actual)	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Actual)	2025 (Budgeted)
Street Sweeping	Street (includes staff)	$603,265	$594,074	$608,200	$593,761	$582,251	$652,520	$712,669
Sewer Repair/Inlet Cleaning	Street (includes staff)	$750,955	$760,741	$855,267	$749,744	$837,783	$1,049,777	$955,613
Bridge, Dam, Ditch Maintenance	Street (includes staff)	$114,749	$124,670	$135,551	$162,196	$138,315	$190,370	$128,000
City-Wide Inlet Repair ##	CIP	$100,000	$82,058	$63,324	$95,072	$222,600	$69,086	$200,000
Stormwater City-Wide Drainage Fund	CIP	$550,000	$1,891,832	$1,408,663	$1,613,417	$906,356	$577,974	$400,000
City-Wide Bank Stabilization	CIP	$1,000,000	$31,601	$3,893	$731,655	$371,658	$0	$0
Stormwater Sampling and Testing / Miscellaneous	General	$40,000	$28,130	$20,110	$20,093	$126,318	$5,195	$13,188
Stormwater (Other Projects)	CIP	$1,000,000	$0	$0	$550	$0	$1,521,285	$900,000
Stormwater (Other Projects)	IDOT	$0	$0	$0	$0	$0	$57,479	$26,779
Stormwater Maintenance & Monitoring	CIP	$0	$1,920	$64,799	$7,136	$9,502	$4,263	$6,000
Bridge/ Box Culvert Projects	CIP	$2,280,000	$1,132,214	$1,906,077	$2,178,902	$397,184	$75,000	$200,000
Bridge/ Box Culvert Projects	State/Fed	$4,636,000	$0	$65,765	$0	$0	$49,842	$0
Stormwater Personnel Costs	CIP - General	$113,327	$104,969	$57,549	$105,325	$198,291	$412,628	$625,569
Total Budget Costs		$11,188,296	$4,752,209	$5,189,198	$6,257,851	$3,790,258	$4,665,419	$4,167,818

- IDOT budgeted $33,000,000 for complete reconstruction of North Main Street from Auburn Street for Riverside Boulevard which included drainage improvements. This project was completed in 2019.
- In 2022, IDOT completed reconstruction of West State Street from Day Avenue to Independence Avenue, including drainage improvements. IDOT budgeted $11,600,000 for this project.
- The City has begun construction on the Logistics Drive extension from Samuelson Road to Milford Avenue. This extension includes new stormsewer and drainage improvements. This project began in late 2022 and was completed in late 2023.
- Seminary Street Bridge over Keith Creek was reconstruction in 2021.
- Charles Street was reconstructed from 28th Street to Parkside Drive including and updated stormsewer system.

3.2 PROGRAM REVIEW

The status of Rockford's SWMP implementation and compliance is reviewed in Section 2. In 2024, the City's Stormwater Management Program continued to accomplish a myriad of new and continuing objectives, most notably:

- HR Green was contracted to complete the update to the Stormwater Master Plan which is scheduled for completion and adoption in 2025.
- Completed several projects to reduce nuisance flooding as well as to repair areas experiencing streambank erosion.
- 217 site development permit applications were received and reviewed, including Stormwater Pollution Prevention Plans (where the developments required them).
- Completed 132 drive through erosion and sediment control reviews, 144 construction site erosion and sedimentation control inspections as well as one pre-grading inspections.
- 119 inlets and manholes and 9,308 feet of storm drains were deducted removing 291.4 tons of debris which improves stormsewer performance.
- 192 inlets and manholes were repaired by the Street Department as well as 197 inlets and manholes through CIP. In addition, 232 linear feet of stormsewer was installed through the CIP program.
- Removed over 3,100 ton of accumulated silt, debris and floatables from open channels.
- Prevented 1,550 ton of solids from entering the stormwater system through street sweeping.
- Performed 32 new investigations for illicit discharge and/or improper disposal.
- Six stormwater violations were submitted to code enforcement.
- The Fire Department's HAZMAT Response Team responded to four incidents where hazardous materials may have entered the stormwater system.
- Completed 133 inspections of industrial and potentially high risk runoff sites.
- Inspected all public and high priority detention basins per standard operating procedures. .
- Reviewed 17 Floodplain Development applications.
- Distributed various pamphlets and brochures as well as gave numerous seminars or presentations to the general public, businesses and civic groups.
- Completed two sets of samples at five wet weather locations for stormwater pollutant load assessment as required in MS4 permit.
- Analyzed 40 tributary samples (base flow events) and 30 stormsewer samples for 18 different pollutants (see Appendices A & B).
- The City utilized a camera system to record the condition of storm pipes.

3.3 EFFECTIVENESS OF CONTROLS

The current stormwater monitoring program was started in the 1990s. Monitoring stations were constructed and automation equipment was purchased, but routine monitoring did not begin until summer 2003. Storm event and dry-weather screening of water quality began in 2003 and continues through the present. Appendices A and B contains this data and interprets their effectiveness. The City contends that monitoring data for the year 2024 is primarily at or below previous year's levels.

3.4 ENFORCEMENT ACTIONS

In 2007, the US EPA began an audit of NPDES Permit ILS000001. A report was issued the following year (SAIC 2008). Implementation of the US EPA's recommendations continues. In December 2010, the US EPA again contacted the City regarding its follow-up activities for improving compliance with the NPDES Permit. Those discussions have continued throughout 2014. In December of 2015, the City finalized a Consent Decree with the US Department of Justice, the US Environmental Protection Agency and the Illinois Environmental Protection Agency. The City agreed to pay a penalty of $329,395.00 as well as implement the Stormwater Program as negotiated in the consent decree and detailed in the Stormwater Master Plan. As required by the consent decree, the City submitted mid-year reports from 2016-2019. In 2020, the Consent Decree the City of Rockford had been operating under was terminated.

The City's current NPDES Stormwater Permit became effective in May of 2021.

REFERENCES

2021 NPDES Permit (ILS000001)

City of Rockford Stormwater Master Plan

City of Rockford Stormwater Management Ordinance (Chapter 109).

Appendices A and B

Appendix A – Water Quality Monitoring Data

In 2024 the City collected a minimum of two (2) samples for analyses from the five (5) identified storm sewer monitoring locations (R1-R5) during wet weather conditions with the exception of R5 for the fall event due to equipment failure. In addition, four (4) sets of samples were collected from the five (5) tributary sample locations (T1-T5) during base flow conditions. The storm sewer samples were analyzed for fifteen (15) parameters and the tributary samples were analyzed for eighteen (18) parameters.

Data has been provided in charts which compare the data from 2004 - 2014, 2015 - 2023, and the 2024 average data. In addition, tables have been provided for all the 2024 parameter data. A map is attached showing the locations of the five (5) storm sewers and five (5) tributary stream sample locations. A description of each sampling location is also provided.

The City of Rockford's NPDES Storm Water Permit cites the five (5) locations for monitoring the storm sewer and these locations were prepared for ongoing sampling by the City with the installation of automatic samplers and rain gauges. Monitoring parameters are defined in the permit.

Table A-1
Storm Water Monitoring Locations

Outfall	Latitude	Longitude	Location	Watershed Description
R1 (001)	42.30576	89.09617	Paradise Boulevard Section 11, T44N, R1E	225-ac residential and open space
R2 (002)	42.27045	89.09043	Market St. & North First Section 23, T44N, R1E	50-ac commercial, offices, and residential
R3 (003)	42.26955	89.04381	Fairview Blvd & Crosby St. Section 19, T44N, R2E	510-ac residential
R4 (004)	42.23405	89.07985	8th St. & Willis St. Section 36, T44N, R1E	780-ac industrial, commercial, and resident.
R5 (005)	42.23266	89.02128	Forest View Rd. & 28th Ave. Section 5, T43N, R2E	80-ac light industrial

Table A-2
Stream Monitoring Locations

Station ID	Stream and Location
T1	North Kent Creek at Fairgrounds
T2	South Kent Creek near intersection of Tay and Corbin Street
T3	Keith Creek at Tenth Avenue Park
T4	Keith Creek at Dahlquist Park
T5	Spring Creek at Starkweather Avenue

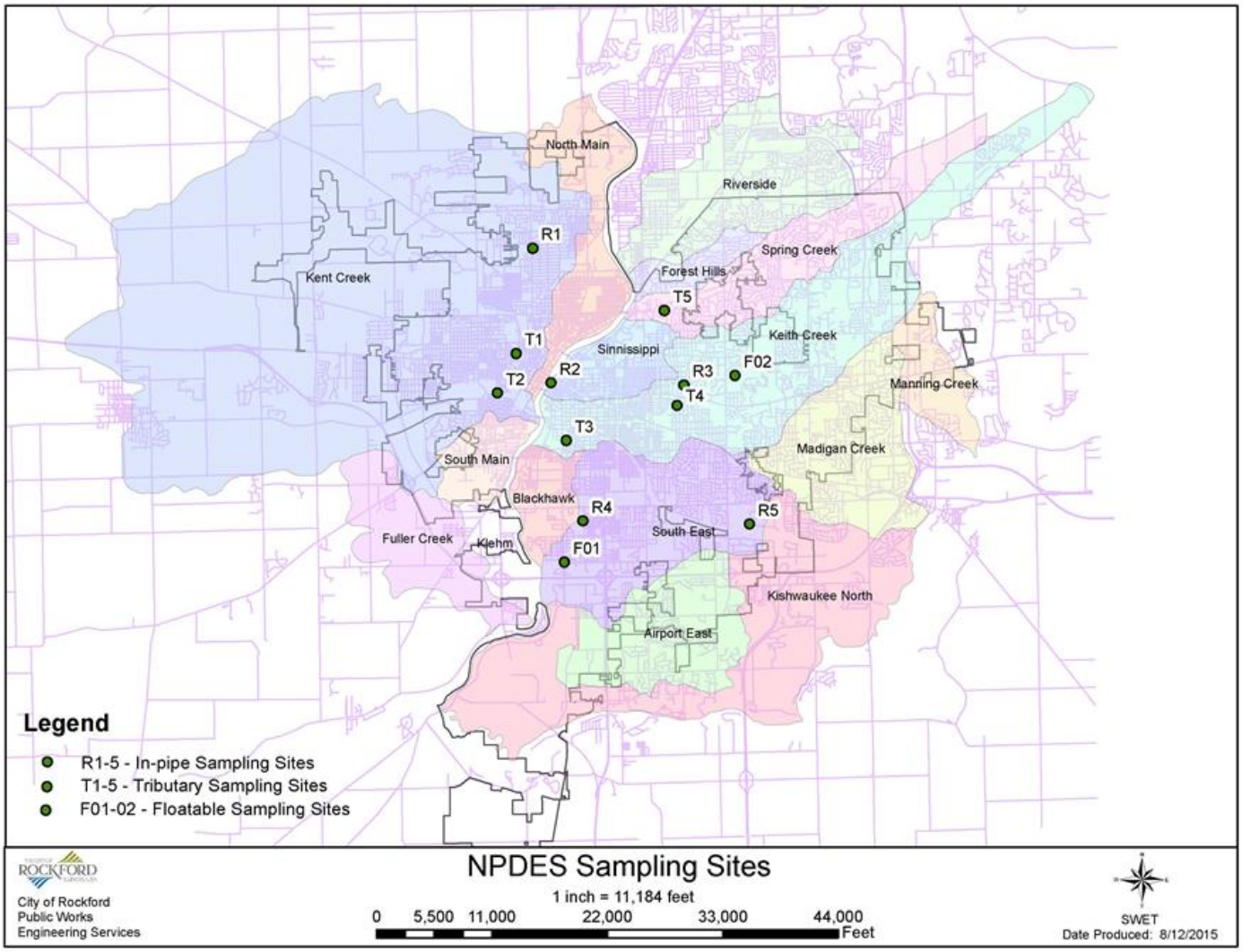


Figure A.1 Map of Stormwater and Tributary Sampling Locations

Appendix B – Stormwater and Tributary Analyses

This appendix summarizes the stormwater pollutant loadings and concentrations from the City of Rockford's MS4 system. It also provides comparison and interpretation of the tributary sampling data by sampling locations. The tributary data is used to assess general water quality and the health of the streams in the City of Rockford. Water quality monitoring tends to be completed in dry weather periods, which is also referred to as low flows or base flows, however, some historical data, prior to 2008 was collected during higher flow periods.

B.1 Stormwater Pollutant Concentrations and Stream Quality

During 2024, six (6) storm events were sampled from the five (5) identified outfalls (R1 – R5), found in Figure A.1. Due to inadequate sample/flow volume, resampling events within a close time period were completed so two (2) full sets of data were collected at each outfall. Samples were collected as either composite or grab samples and field analyzed or sent to the Four Rivers Sanitation Authority (FRSA) laboratory. Data was compiled into three (3) sets of data to analyze a long-term trend (2004 to 2014), shorter-term trend (2015 to 2023) and current-year analyses (2024). Sample data was averaged for each outfall for years from 2004 to 2014, 2015 to 2023, and in 2024 as well.

The data for each 2024 sample event and 2024 averages were determined and placed into the table at the end of this section (Table B-1). These averages were then used to calculate the loadings discussed in section B.3.

Stream water quality is assessed at five (5) locations, T1 through T5 (Figure A.1 and Table B-2), on a quarterly basis by the City. These are the main receiving waters for the MS4. Typically, the field measurements and water samples are collected during low flow periods (base flow), however, prior to 2008 samples were collected without consideration for flow rates. Average levels of parameters in 2024 are presented in the following graphs and can be compared to historical numbers. Table B – 2 contains the 2024 collected data for all events.

Charts representing each of the pollutants analyzed and discussion of the results are presented in this report. Comparisons were made between the wet weather stormwater samples (R1-R5) and the base flow tributary stream samples (T1-T5). Section B.2 contains the storm events and runoff volumes, and Section B.3 includes the pollutant loadings to the streams.

B.1.1a Storm Sewer Fecal Coliform Bacteria

The average 2024 bacteria levels were higher than 2023 at all outfalls. The 2024 average was also higher than the shorter-term average at all of the outfalls except R1. The fecal coliform bacteria levels will continue to be monitored in the future for leads to sources and trends. Typical wastewater discharge objectives are as low as 400 CFU/100ml.

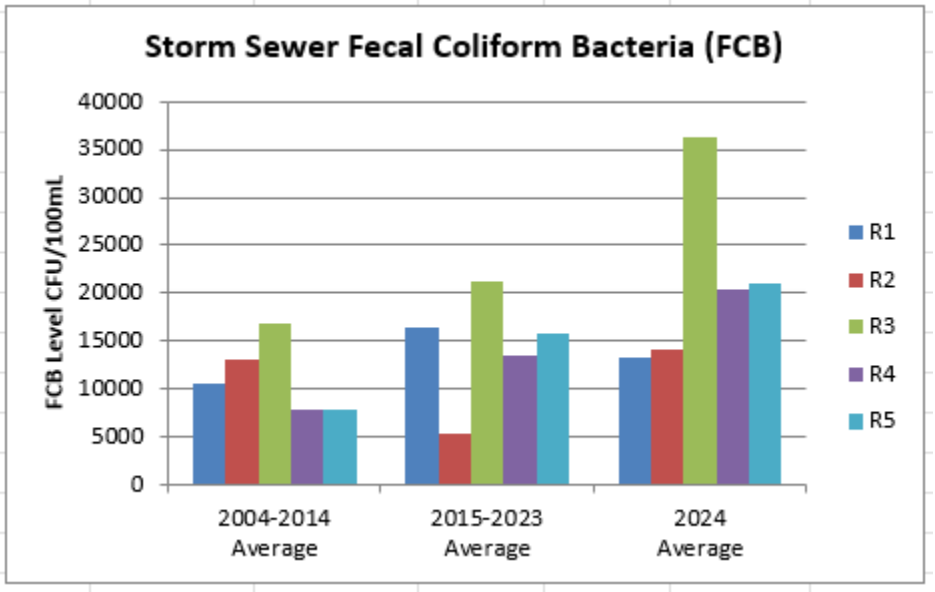


Chart B.1.1a – Storm Sewer Fecal Coliform Bacteria

B.1.1b Tributary Fecal Coliform Bacteria

Bacteria levels in the streams decreased at all outfalls in 2024 compared to the short-term average. The water quality objective level for fecal coliform bacteria is 400 CFU/100 ml for surface waters.

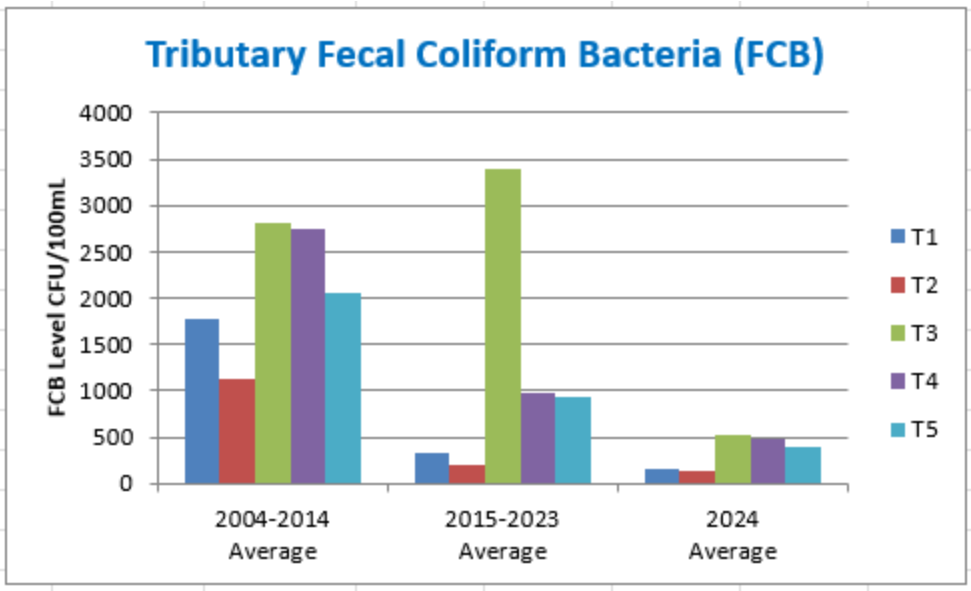


Chart B.1.1b – Tributary Fecal Coliform Bacteria

B.1.1c Comparison of Storm Sewer vs. Tributary

Note the charts indicate a significant difference in 2024 fecal coliform bacteria concentrations between the storm sewer and tributary samples. Fecal coliform bacteria can be an indicator of illicit sewer discharges, but with the low levels of bacteria in the dry weather conditions of the tributaries and storm sewer samples, one would deduce this is not the case. FCB levels appear to rise and fall throughout the seasons in all storm sewer outfalls and tributaries together.

B.1.2 Biochemical Oxygen Demand

The five-day Biochemical Oxygen Demand (BOD) is a measure to determine the need of the water to decompose organic matter. The greater the need for oxygen, the more oxygen that will be pulled from the receiving water source, thus reducing the oxygen content of the water. When organic loadings remove oxygen from the water, more favorable natural organisms (aquatic bugs, crustaceans, fish, etc.) are reduced in number. Typically, BOD levels of less than 30 mg/L are acceptable for wastewater discharge. The outfalls showed a slight increase at R2, R4 and R5 in comparison to 2023. The average BOD concentration in 2024 was below 30 mg/L.

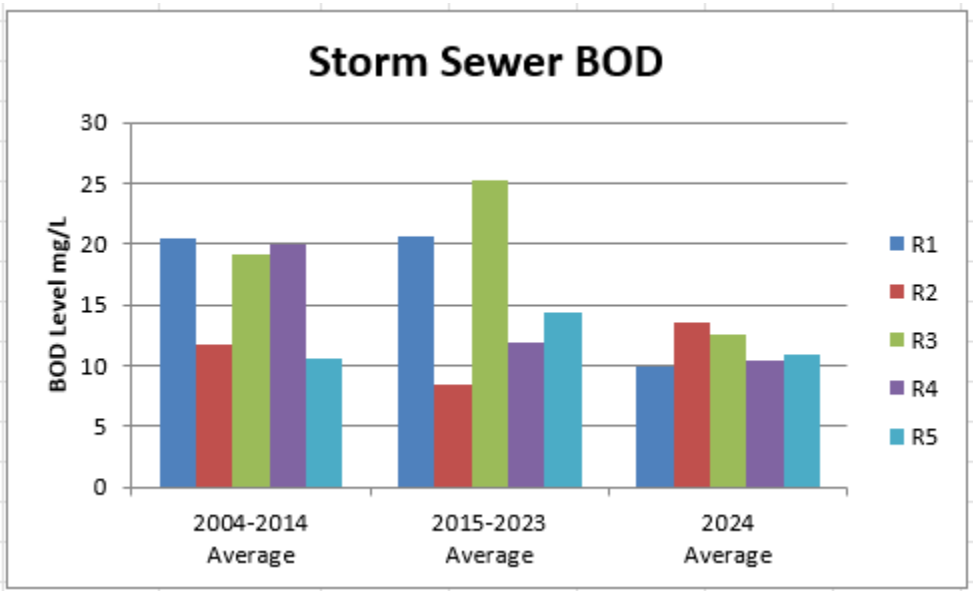


Chart B.1.2 – Storm Sewer BOD

B.1.3a Storm Sewer Chemical Oxygen Demand

The Chemical Oxygen Demand (COD) is a measure of the total oxygen needs of all chemicals (inorganic and organic matter) in the water. COD levels tend to be 10 to 100 percent higher than BOD, which only measures what can naturally biodegrade. High COD readings can indicate chemical contamination versus organic contamination. The 2024 COD results decreased at outfalls R1, R3 and R4 compared to the short-term average.

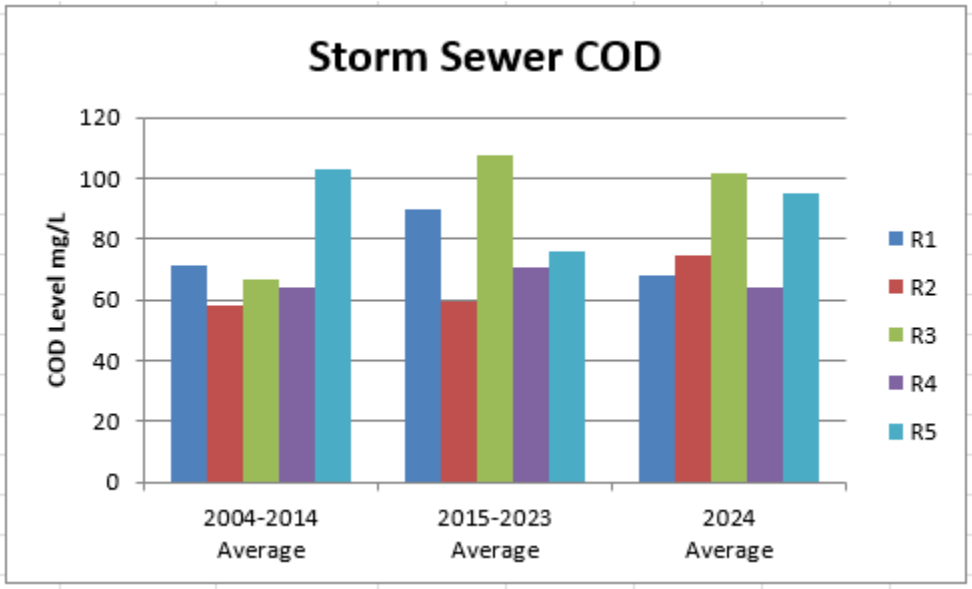


Chart B.1.3a – Storm Sewer COD

B.1.3b Tributary Chemical Oxygen Demand

The COD levels in 2024 remain consistent with the 2023 levels. With the average 2024 levels below 25 mg/L, the COD water quality at the tributaries is considered favorable.

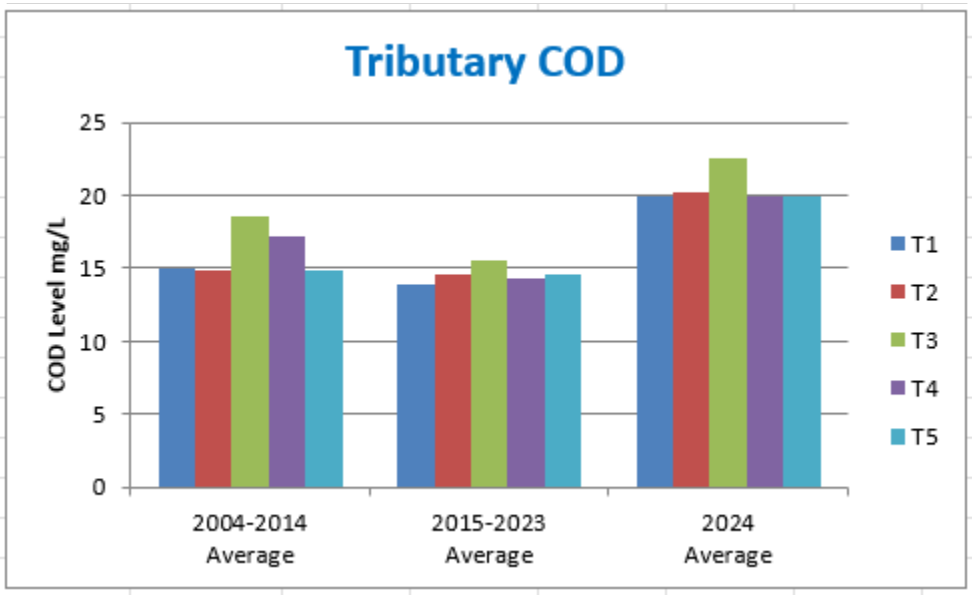


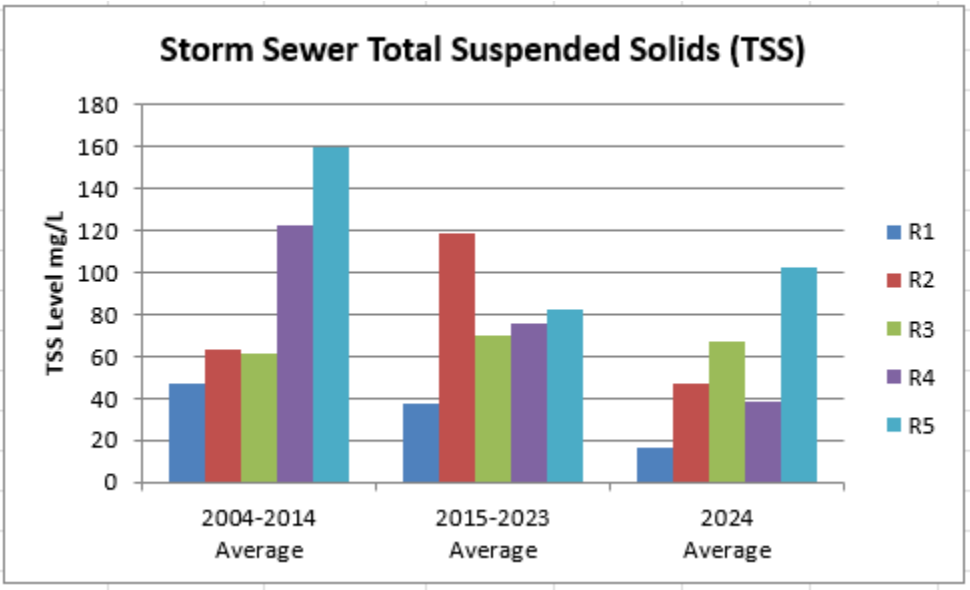
Chart B.1.3b – Tributary COD

B.1.3c Comparison of Storm Sewer vs. Tributary

The COD levels in the storm sewer run on average an order of magnitude over the stream samples. Streams are constantly biodegrading the organics and therefore would expect lower levels.

B.1.4a Storm Sewer Total Suspended Solids

Total Suspended Solids (TSS) is a measure of the particulates being carried in the water. Based upon the 2024 results and analyses, the TSS detected in all of the outfalls for 2024 increased but remained below the short term average at all of the outfalls except R5.



B.1.4b Tributary Total Suspended Solids

The average suspended solids in 2024 increased at T2 and slightly increased at T3. Levels decreased at T1, T4 and T5 when compared to recent history. Suspended solids have decreased significantly at each tributary compared to the longer-term historical data. TSS levels of less than 10 mg/L are considered favorable.

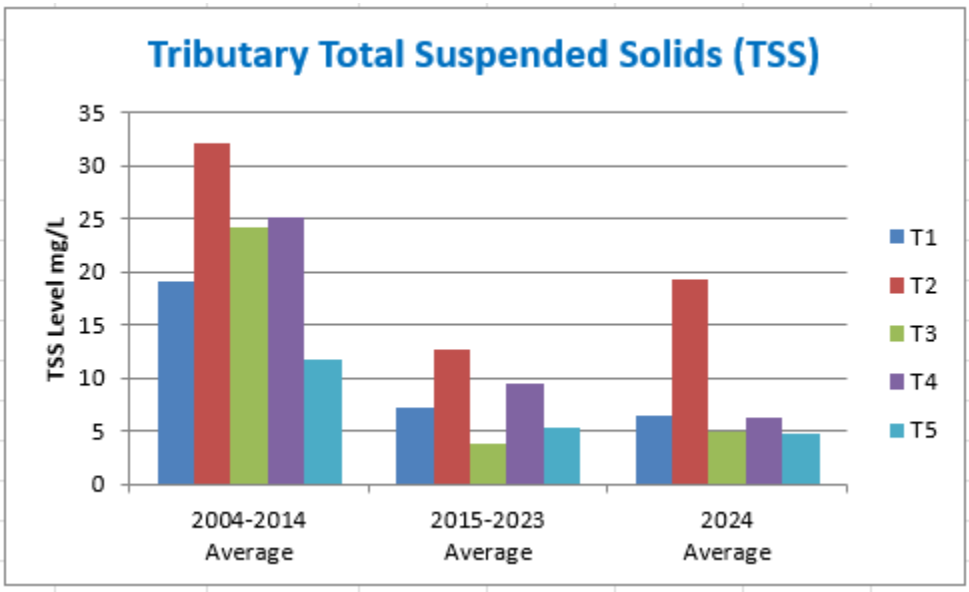


Chart B.1.4b – Tributary Total Suspended Solids

B.1.4c Comparison of Storm Sewer vs. Tributary

The TSS levels are higher in the storm sewer samples than in the tributary samples. Taking the samples in the tributaries during base flow levels would naturally explain the lower solids levels in the streams (solids not washed in).

B.1.5a Storm Sewer Total Dissolved Solids

Total Dissolved solids (TDS) is a measure of all inorganic and organic substances dissolve in the water. For instance, salt would dissolved in water and elevate the amount of TDS. The average TDS concentrations for the five (5) outfalls ranged from approximately 110 to 296 mg/L. The graph indicates 2024 levels were higher than the recent average in R3, R4 and R5.

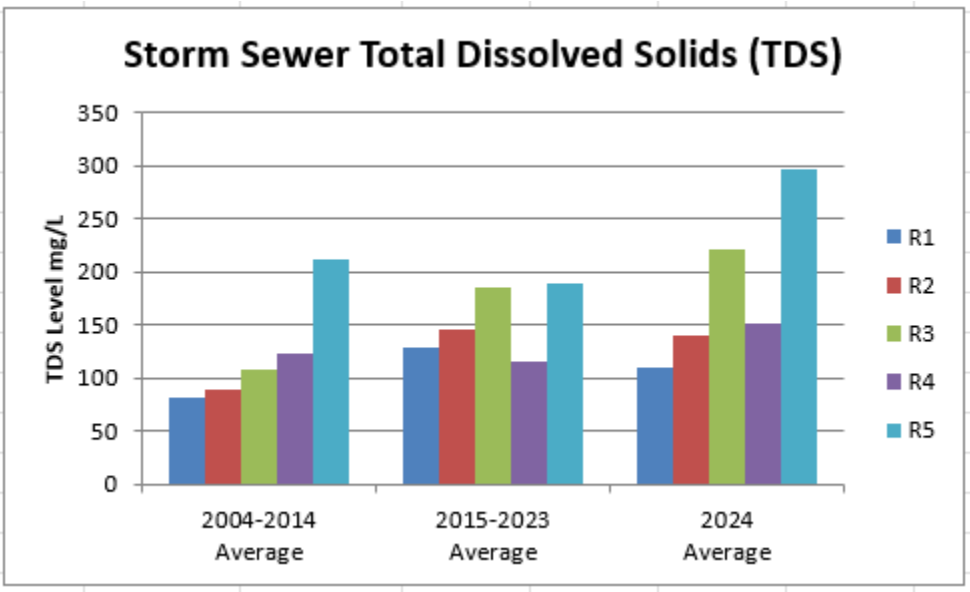


Chart B.1.5a – Storm Sewer Total Dissolved Solids

B.1.5b Tributary Total Dissolved Solids

The 2024 dissolved solids levels were comparable to historical levels with T4 elevated. There is a good correlation between dissolved solids and conductivity levels; salt levels drive both numbers. Tributary sample zones T3, T4, and T5 all have more commercial parking areas with salt application. There are no standards to compare these levels to in Illinois.

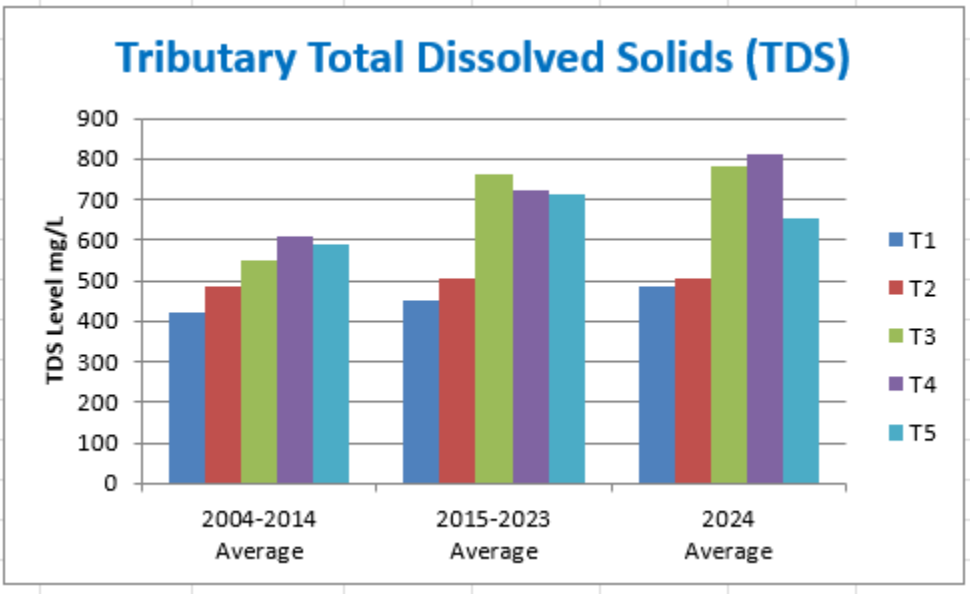


Chart B.1.5b – Tributary Total Dissolved Solids

B.1.5c Comparison of Storm Water vs. Tributary

The 2024 TDS levels are about two to five times higher in the tributary samples than in the sewer samples. The stream and groundwater in the region are very hard (high TDS), whereas rainwater is very soft. The high TDS in the tributaries would be expected.

B.1.6 Fats Oils and Grease

Stormwater is analyzed for the presence of Fats, Oils, and Grease (FOG) to assess the impacts from human activities. Industrial and automotive activities would be the sources of elevated numbers. Typical industrial discharge limits are 15 mg/L and the 2024 discharge amounts were elevated at 19 mg/L at R3, R4 and R5.

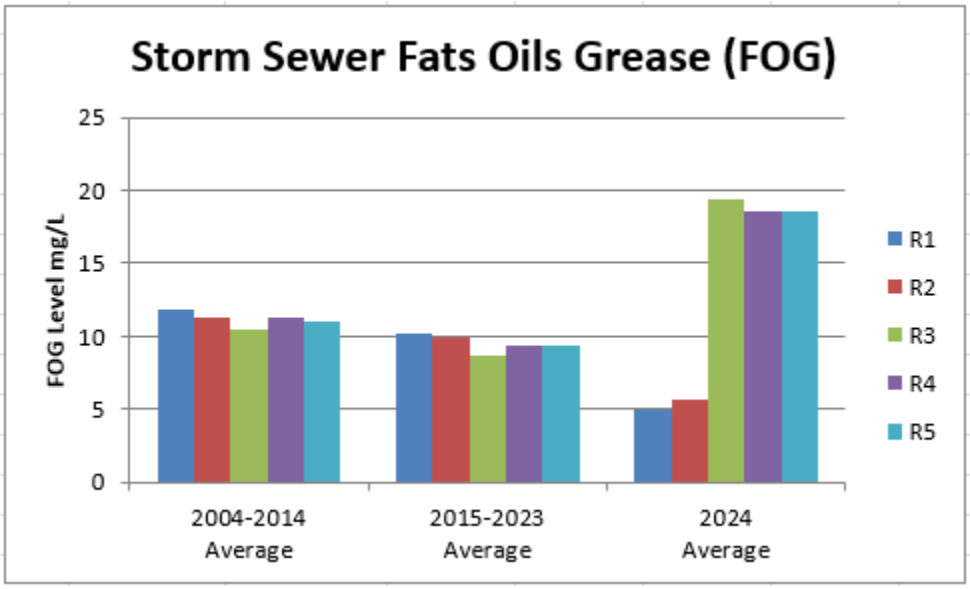


Chart B.1.6 – Storm Sewer Fats, Oils, Grease

B.1.7 Hardness

Water hardness is monitored as an indicator of water quality and the presence of some metals. Water hardness in 2024 was higher than historical ranges at sample points R1, R3 and R4. Hardness levels of under 600 mg/L would be normal for surface waters in the region, due to limestone stream sources. However, storm sewer water should be primarily rainwater, and result in low hardness. Storm sewers will continue to be monitored for changes in hardness trends.

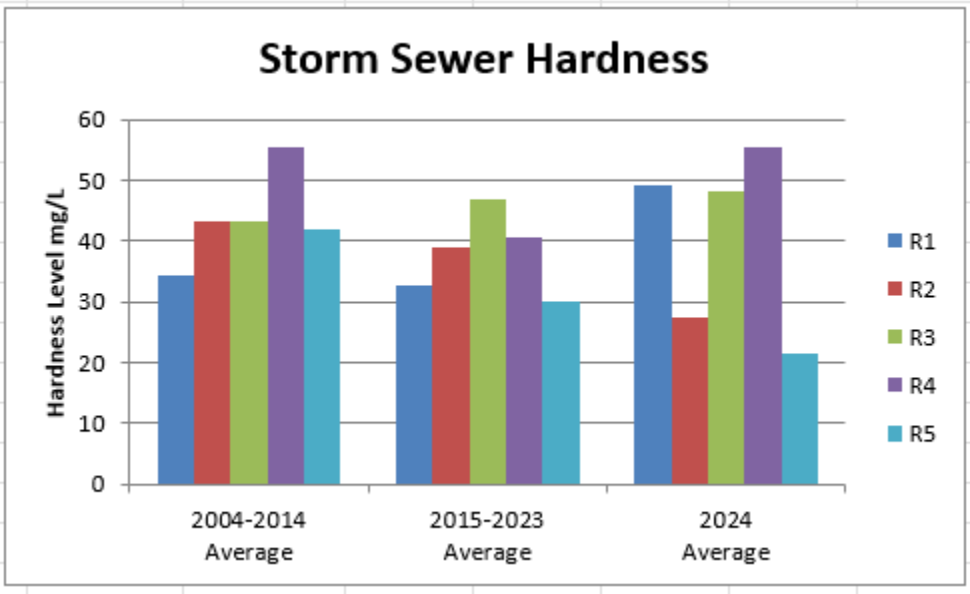


Chart B.1.7 – Storm Sewer Hardness

B.1.8a Storm Sewer Nitrogen and Phosphorus

Four (4) different analyses (ammonia nitrogen, nitrate/nitrite, Total Kjeldahl Nitrogen, and phosphorus) are used to evaluate the nutrient concentrations in 2024 in the water. 2024 ammonia nitrogen levels were lower than the recent average numbers at all outfalls except R5. Discharge limits for treated wastewater are typically around 3.0 mg/L for ammonia. The five (5) storm sewer outfall averages ranged from 0.30 to 0.83 mg/L ammonia.

2024 nitrate and nitrite levels were elevated compared to historical values at outfalls R3, R4 and R5. The five (5) storm sewer outfalls averaged 0.35 to 0.769 mg/L. Surface water averages approximately 0.6 mg/L and groundwater about 2.0 mg/L in the region.

Total Kjeldahl Nitrogen (TKN) is a representation of all nitrogen compounds and 2024 TKN levels were at or below the laboratory detection limit of 5.0 mg/L.

Currently, typical discharge limits of phosphorus are about 1.0 mg/L. The phosphorus level for the five (5) outfalls ranged from 0.06 to 0.111 mg/L. Phosphorus levels were much lower than historical levels at all outfalls.

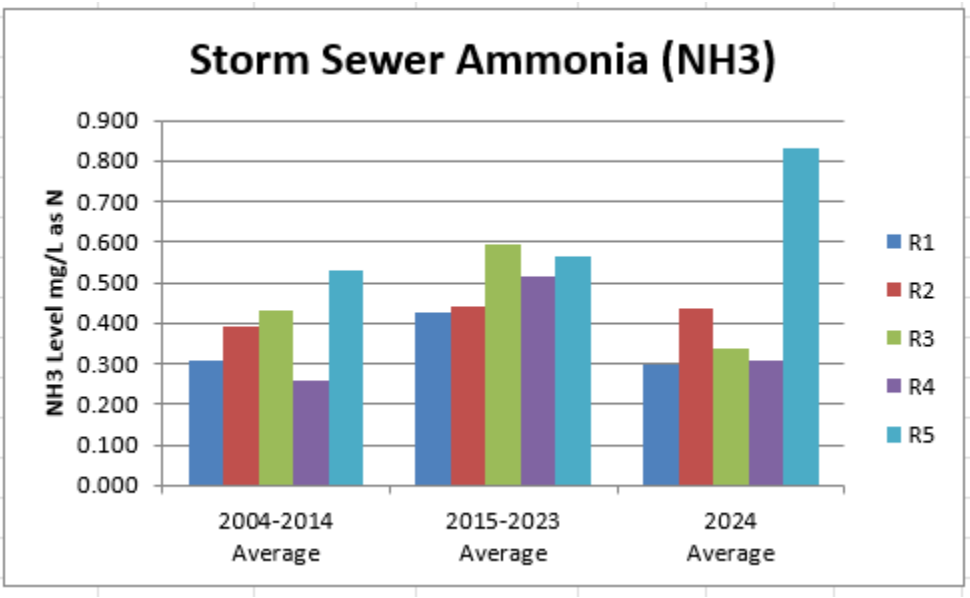


Chart B.1.8a(1) – Storm Sewer Ammonia

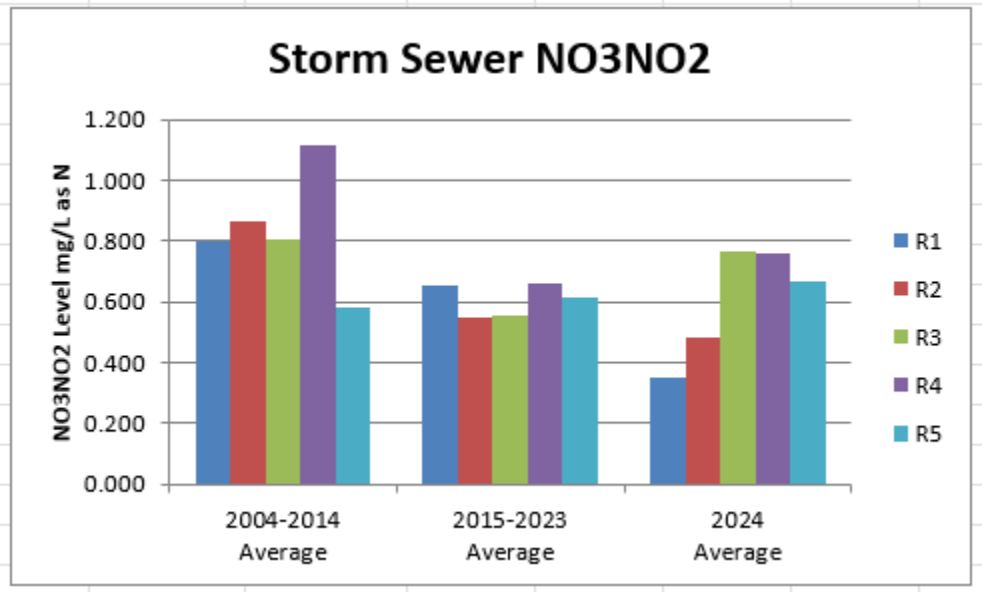


Chart B.1.8a(2) -Storm Sewer Nitrate/Nitrite

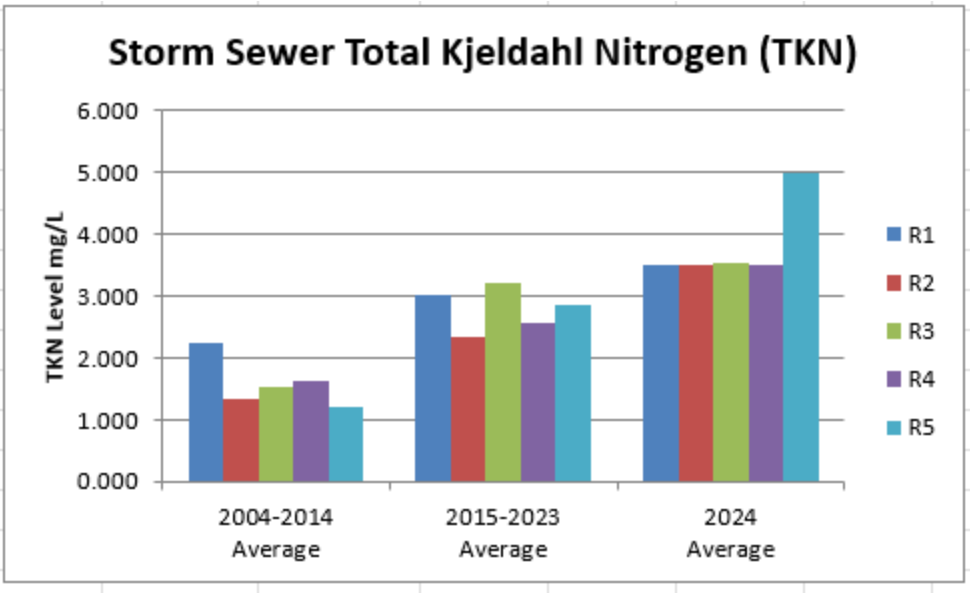


Chart B.1.8a(3) – Storm Sewer Total Kjeldahl Nitrogen

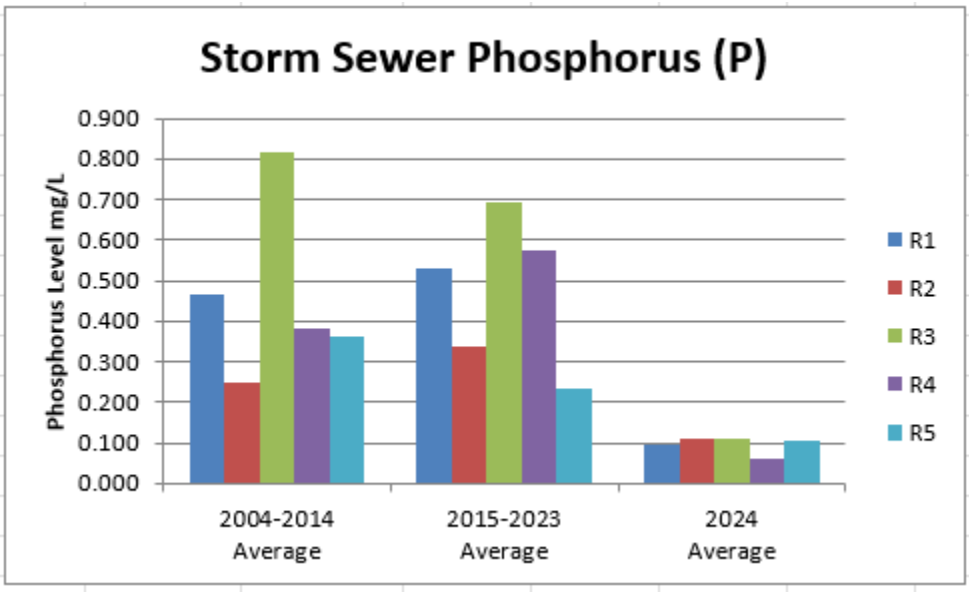


Chart B.1.8a(4) – Storm Sewer Phosphorus

B.1.8b Tributary Nitrogen and Phosphorus

Levels of nutrients in the five (5) stream samples have been very similar over the past ten (10) to fifteen (15) years. The levels of nitrate and nitrite in the T1 and T2 samples are indicative of agricultural practices that can be found in the Kent Creek watershed. There are no standards to compare these results to surface waters. Phosphorus is a nutrient considered to be the limiting factor for lake eutrophication and algae blooms. Ideally, surface waters should strive to have levels below 0.1 mg/L. Phosphorus displayed a moderate decline in concentrations in all of the outfalls.

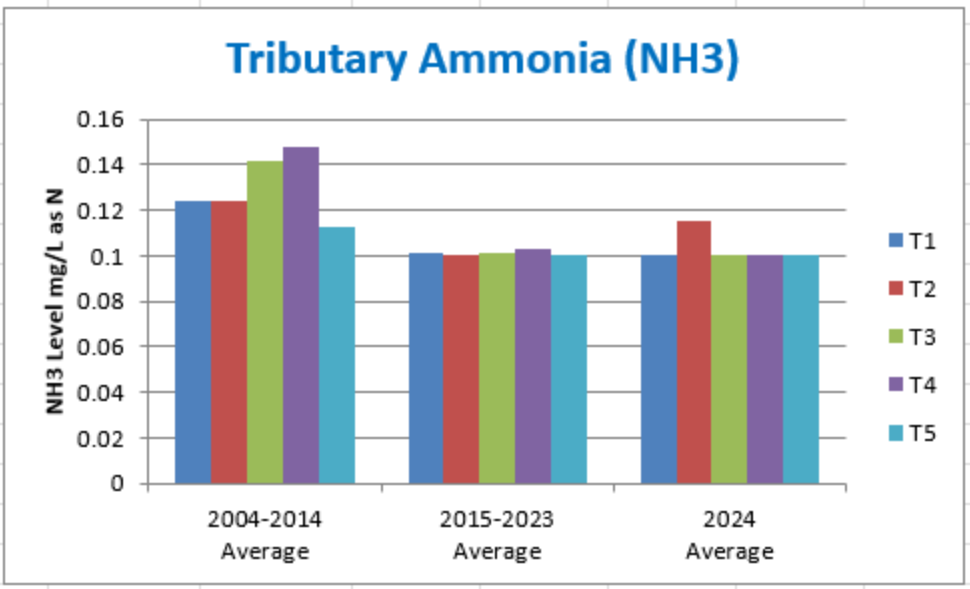


Chart B.1.8b(1) Tributary Ammonia

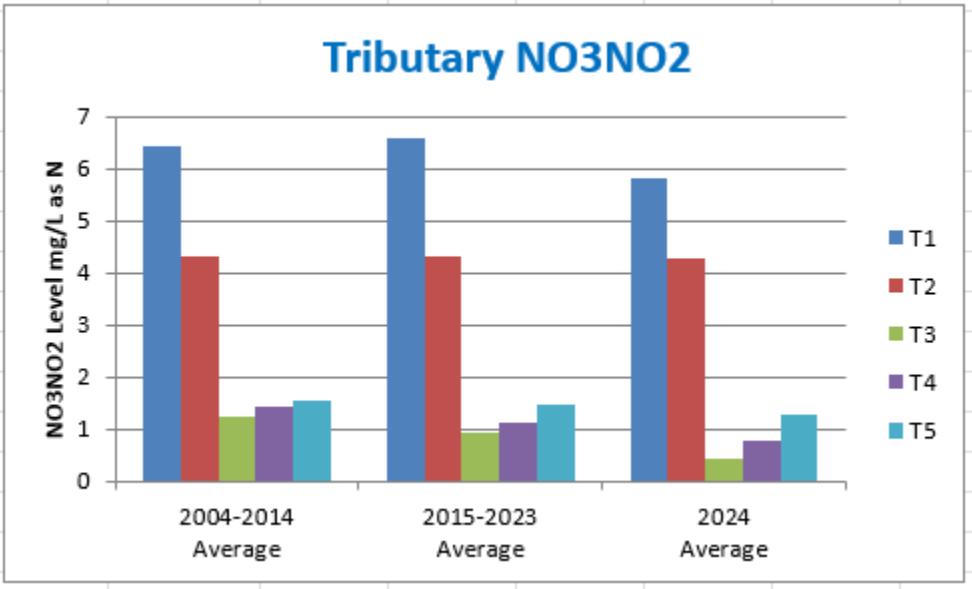


Chart B.1.8b(2) – Tributary Nitrate/Nitrite

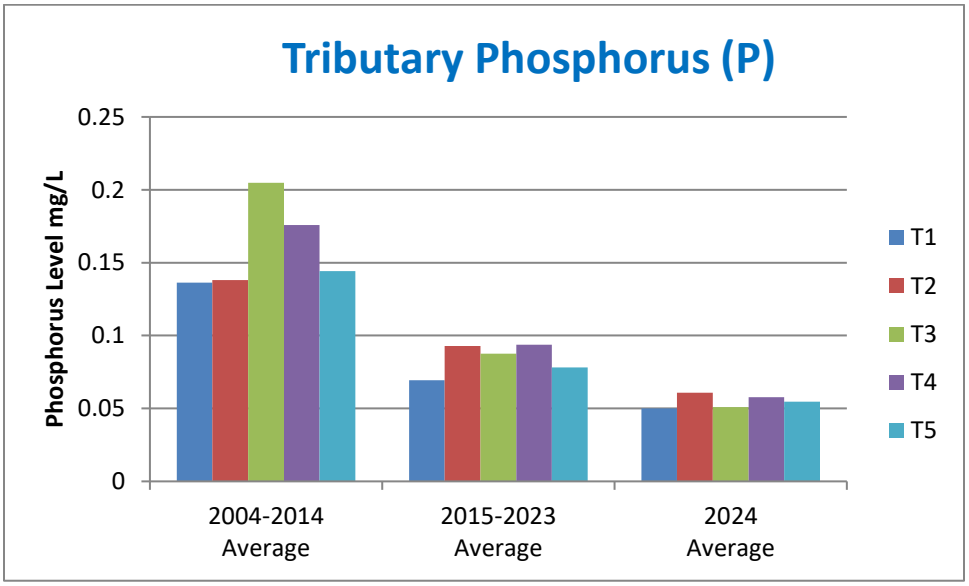


Chart B.1.8b(3) – Tributary Phosphorus

B.1.8c Comparison of Storm Water vs. Tributary

Ammonia levels in the storm sewer are about three (3) to eight (8) times that of tributaries. Nitrate and nitrite levels are about double or more in the tributary samples as compared to the storm sewer samples. Phosphorus levels in the storm sewer are about double that of the tributary levels except the low levels in R4.

B.1.9a Storm Sewer Metals

Copper, cadmium, zinc, and lead are monitored in the stormwater discharges of all five (5) outfalls. The 2024 results indicated the copper levels were lower in all of the outfalls. Cadmium levels were all below the detection limit in the samples. Zinc and lead levels were all below the historical trends with lead at or near the detection limit.

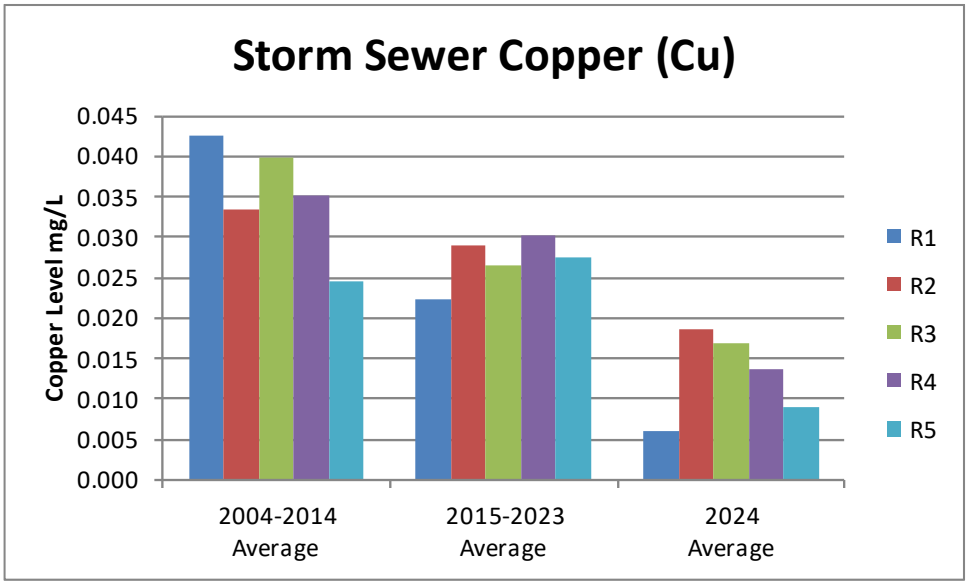


Chart B.1.9a(1) - Storm Sewer Copper

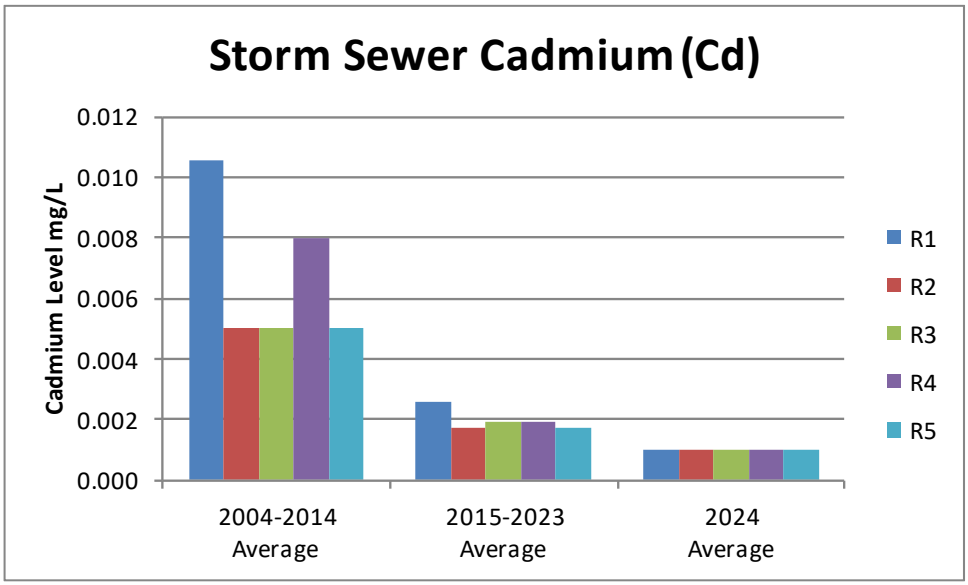


Chart B.1.9a(2) - Storm Sewer Cadmium

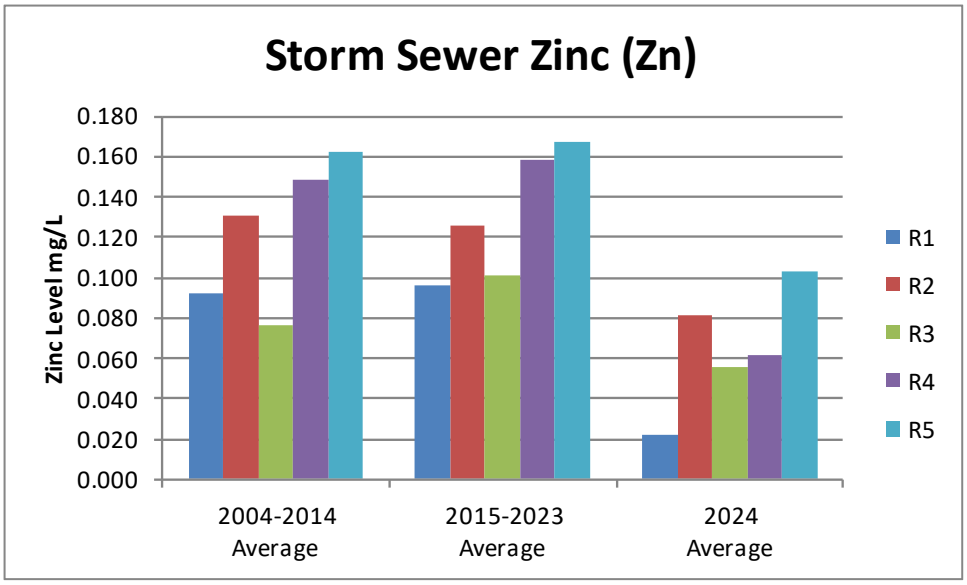


Chart B.1.9a(3) - Storm Sewer Zinc

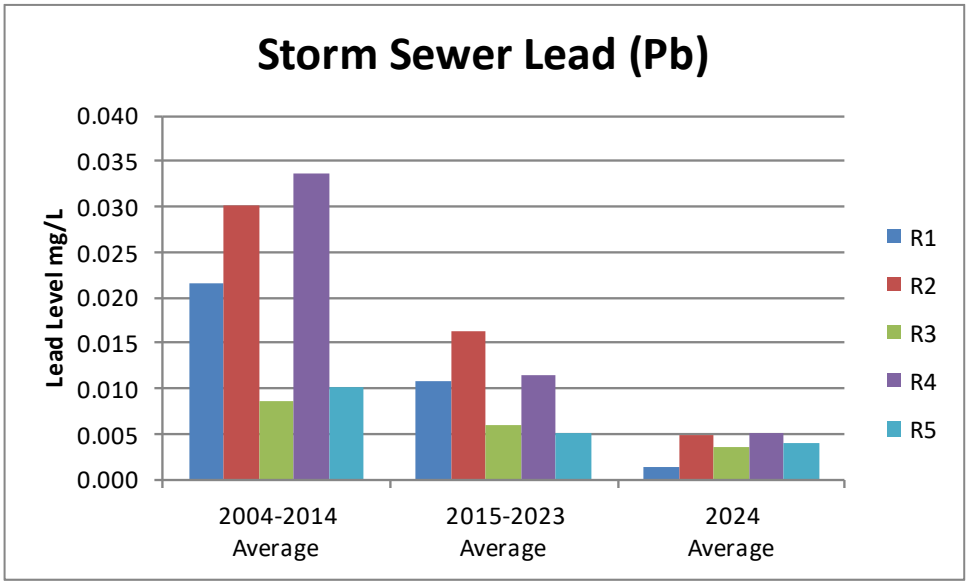


Chart B.1.9a(4) - Storm Sewer Lead

B.1.9b Tributary Metals

Results for the tributary metal concentrations are not represented in graphs. The results are all at or only slightly above the detection levels of analysis. Metal levels in the streams are generally not detectable. We would ask the IEPA to consider removing the need to sample for tributary metal levels. No comparison is being made.

B.1.10 Other Tributary Parameters

Several other analyses are completed on the tributary samples and are discussed below.

B.1.10a Dissolved Oxygen

The 2024 levels of dissolved oxygen in the stream are very favorable. Average stream levels are between 9.16 and 10.9 mg/L. General Use Water Quality Standards strive to see numbers above 6.25 mg/L and never lower than 4.0 mg/L in the summer. High/favorable DO measurements indicate low oxygen demand and minimal sewage or organic loads.

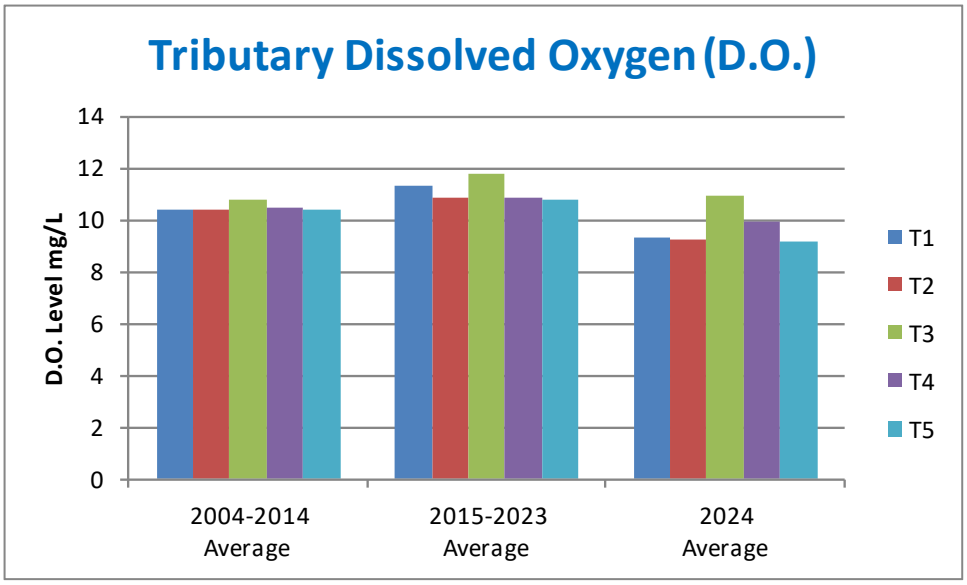


Chart B.1.10a – Tributary Dissolved Oxygen

B.1.10b pH

The General Use Water Quality Standard provides an acceptable pH range of 6.5 to 9.0. For 2024, the pH range of all samples was 7.93 to 8.38. All pH values were within the normal range for surface water.

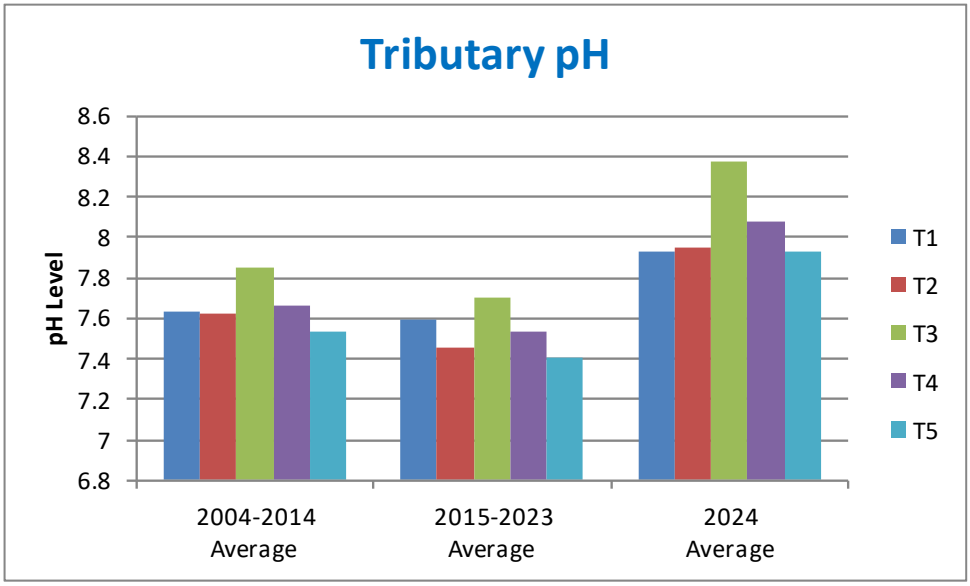


Chart B.1.10b – Tributary pH

B.1.10c Conductivity

Conductivity is the measure of ions (salts) dissolved in the water. The conductivity is higher at all of the outfalls. This is likely due to more commercial and industrial activities with salt applications on the roads and parking lots in 2024. Salt is probably the primary contributor to higher conductivity levels during the winter months when looking into individual sampling data.

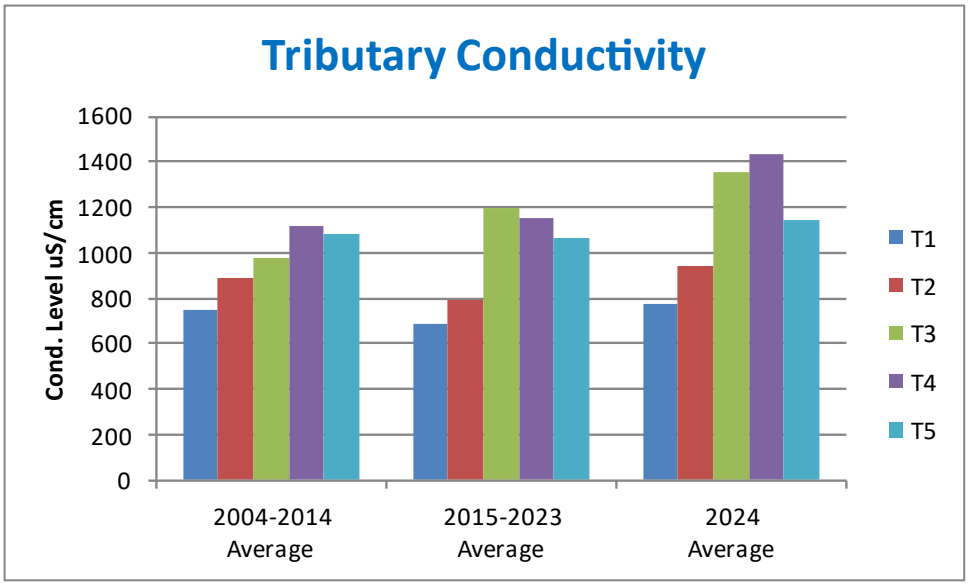


Chart B.1.10c – Tributary Conductivity

B.1.2 Storm Sewer and Tributary Analytical Results

The individual sampling results from each storm sewer and tributary sampling event are included below.

Table B-1 2024 Storm Sewer Analytical Results

R1
Outfall: 001
Location Description: Paradise Boulevard
Latitude: 42.30576 Longitude: 89.09617

		Date:	4/17/2024	5/14/2024	6/5/2024	9/23/2024	11/4/2024	11/18/2024
FCB	CFU/100mL			24196				2374
BOD	mg/L				6		14	
COD	mg/L				36		100	
TSS	mg/L				26		7	
TDS	mg/L				50		170	
FOG	mg/L			5				5
Hardness	mg/L				13.1		85.5	
NH3	mg/L as N				0.5		0.1	
NO3NO2	mg/L as N				0.35		0.35	
TKN	mg/L				5		2	
P	mg/L				0.05		0.141	
Cu	mg/L				0.005		0.00688	
Cd	mg/L				0.001		0.001	
Zn	mg/L				0.0144		0.0288	
Pb	mg/L				0.00127		0.00138	

= below analytical detection level

R2
Outfall: 002
Location Description: Market Street and North Fi
Latitude: 42.27045 Longitude: 89.09043

		Date:	4/17/2024	5/14/2024	6/5/2024	9/23/2024	11/4/2024	11/18/2024
FCB	CFU/100mL			2282				25994
BOD	mg/L		16			11		
COD	mg/L		100			49		
TSS	mg/L		86			9		
TDS	mg/L		156			124		
FOG	mg/L			6.4				5
Hardness	mg/L		34.7			20.2		
NH3	mg/L as N		0.774			0.1		
NO3NO2	mg/L as N		0.613			0.357		
TKN	mg/L		5			2		
P	mg/L		0.167			0.05		
Cu	mg/L		0.0194			0.018		
Cd	mg/L		0.001			0.001		
Zn	mg/L		0.115			0.0483		
Pb	mg/L		0.00747			0.00229		

= below analytical detection level

R3
Outfall: 003
Location Description: Fairview Blvd. and Crosby S
Latitude: 42.26955 Longitude: 89.04381

		Date:	4/17/2024	5/14/2024	6/5/2024	9/23/2024	11/4/2024	11/18/2024
FCB	CFU/100mL			24196				48392
BOD	mg/L		11			14		
COD	mg/L		135			68		
TSS	mg/L		124			11		
TDS	mg/L		314			130		
FOG	mg/L			5				33.9
Hardness	mg/L		75.1			21.3		
NH3	mg/L as N		0.66			0.01		
NO3NO2	mg/L as N		1.034			0.503		
TKN	mg/L		5			2.1		
P	mg/L		0.172			0.05		
Cu	mg/L		0.0198			0.0139		
Cd	mg/L		0.001			0.001		
Zn	mg/L		0.0864			0.0249		
Pb	mg/L		0.00613			0.001		

= below analytical detection level

R4
Outfall: 004
Location Description: 9th St, 1 block South of Har
Latitude: 42.23405 Longitude: 89.07985

		Date:	4/17/2024	5/14/2024	6/5/2024	9/23/2024	11/4/2024	11/18/2024
FCB	CFU/100mL			6131				34568
BOD	mg/L		10			11		
COD	mg/L		60			68		
TSS	mg/L		42			34		
TDS	mg/L		144			160		
FOG	mg/L			5				32
Hardness	mg/L		30.6			80.1		
NH3	mg/L as N		0.511			0.1		
NO3NO2	mg/L as N		0.93			0.589		
TKN	mg/L		5			2		
P	mg/L		0.069			0.05		
Cu	mg/L		0.0134			0.0138		
Cd	mg/L		0.001			0.001		
Zn	mg/L		0.065			0.0587		
Pb	mg/L		0.00606			0.00406		

= below analytical detection level

R5
Outfall: 005
Location Description: Forest View Rd and 28th
Latitude: 42.23266 Longitude: 89.02128

		Date:	4/17/2024	5/14/2024	6/5/2024	9/23/2024	11/4/2024	11/18/2024
FCB	CFU/100mL			7270				34568
BOD	mg/L		11					
COD	mg/L		95					
TSS	mg/L		102					
TDS	mg/L		296					
FOG	mg/L			5				32
Hardness	mg/L		21.6					
NH3	mg/L as N		0.83					
NO3NO2	mg/L as N		0.666					
TKN	mg/L		5					
P	mg/L		0.105					
Cu	mg/L		0.00904					
Cd	mg/L		0.001					
Zn	mg/L		0.103					
Pb	mg/L		0.00403					

= below analytical detection level

= Indicates below analytical detection leve

= Indicates greater than analytical detectio

Table B-2 2024 Tributary Sampling Analytical Results

T1
Tributary : 1
Location Descrition: North Kent Creek at Fairgrounds
Latitude: 42.27818 Longitude: 89.10305

				2/12/2024	5/13/2024	8/12/2024	11/12/2024
		date		2/12/2024	5/13/2024	8/12/2024	11/12/2024
		time		8:44 AM	9:06 AM	8:41 AM	9:13 AM
stream monitoring data	D.O.	mg/L		11.74	8.19	7.8	9.55
	pH			7.52	7.97	8.01	8.23
	Temp	deg. C		1.8	16.2	16.7	8.2
	Cond	uS/cm		836	815	867	577
conventional pollutants	Fecal	cfu/100 mL		20	171	196	218
	COD	mg/L		20	20	20	20
	TSS	mg/L		8	8	7	3
	TDS	mg/L		532	452	494	462
	Hardness	mg/L		381	374	380	384
nutrients	NH_3-N	mg/L		0.1	0.1	0.1	0.1
	NO_3-N	mg/L		6.72	6.78	5.31	4.46
	P	mg/L		0.05	0.05	0.05	0.05
heavy metals	Cu	mg/L		0.005	0.005	0.005	0.005
	Cd	mg/L		0.001	0.001	0.001	0.001
	Ni	mg/L		0.005	0.005	0.005	0.005
	Cr	mg/L		0.001	0.001	0.001	0.001
	Zn	mg/L		0.006	0.006	0.006	0.006
	Pb	mg/L		0.001	0.001	0.001	0.001

= Indicates below analytical detection level

T2
Tributary : 2
Location Descrition: South Kent Creek near intersection of Tay and Corbin St.
Latitude: 42.26865 Longitude: 89.10950

				2/12/2024	5/13/2024	8/12/2024	11/12/2024
		date		2/12/2024	5/13/2024	8/12/2024	11/12/2024
		time		8:55 AM	9:19 AM	8:52 AM	9:30 AM
stream monitoring data	D.O.	mg/L		11.65	7.78	7.57	9.96
	pH			7.93	7.82	8.02	8.03
	Temp	deg. C		3.3	17.7	18.4	9
	Cond	uS/cm		920	889	970	984
conventional pollutants	Fecal	cfu/100 mL		63	228	124	170
	COD	mg/L		20	21	20	20
	TSS	mg/L		13	41	12	11
	TDS	mg/L		516	480	528	490
	Hardness	mg/L		389	362	382	400
nutrients	NH_3-N	mg/L		0.1	0.16	0.1	0.1
	NO_3-N	mg/L		4.51	4.87	3.76	3.9
	P	mg/L		0.05	0.093	0.05	0.05
heavy metals	Cu	mg/L		0.005	0.005	0.005	0.005
	Cd	mg/L		0.001	0.001	0.001	0.001
	Ni	mg/L		0.005	0.005	0.005	0.005
	Cr	mg/L		0.001	0.00127	0.001	0.001
	Zn	mg/L		0.006	0.00688	0.006	0.006
	Pb	mg/L		0.001	0.00218	0.001	0.001

= Indicates below analytical detection level

T3

Tributary : 3

Location Description: Keith Creek at Tenth Avenue Park

Latitude: 42.25622 Longitude: 89.08460

				2/12/2024	5/13/2024	8/12/2024	11/12/2024
			date	2/12/2024	5/13/2024	8/12/2024	11/12/2024
			time	9:11 AM	9:33 AM	9:05 AM	9:45 AM
stream monitoring data	D.O.	mg/L		13.95	9.45	8.95	11.26
	pH			8.36	8.24	8.39	8.51
	Temp	deg. C		0.9	17.4	18.6	7.2
	Cond	uS/cm		1355	1173	1455	1422
conventional pollutants	Fecal	cfu/100 mL		75	1046	218	746
	COD	mg/L		23	20	20	27
	TSS	mg/L		10	5	3	2
	TDS	mg/L		790	632	836	876
	Hardness	mg/L		459	380	482	500
nutrients	NH_3-N	mg/L		0.1	0.1	0.1	0.1
	NO_3-N	mg/L		0.674	0.525	0.286	0.309
	P	mg/L		0.05	0.054	0.05	0.05
heavy metals	Cu	mg/L		0.005	0.005	0.005	0.005
	Cd	mg/L		0.001	0.001	0.001	0.001
	Ni	mg/L		0.005	0.005	0.005	0.005
	Cr	mg/L		0.001	0.001	0.001	0.001
	Zn	mg/L		0.006	0.006	0.006	0.006
	Pb	mg/L		0.001	0.001	0.001	0.001

= Indicates below analytical detection level

T4

Tributary : 4

Location Description: Keith Creek at Dahlquist Park

Latitude: 42.26425 Longitude: 89.04542

				2/12/2024	5/13/2024	8/12/2024	11/12/2024
			date	2/12/2024	5/13/2024	8/12/2024	11/12/2024
			time	9:30 AM	9:52 AM	9:18 AM	10:02 AM
stream monitoring data	D.O.	mg/L		12.78	8.73	8.44	9.81
	pH			8.06	7.94	8.23	8.07
	Temp	deg. C		2.1	17	16	9
	Cond	uS/cm		1483	1217	1481	1570
conventional pollutants	Fecal	cfu/100 mL		85	410	492	942
	COD	mg/L		20	20	20	20
	TSS	mg/L		9	11	2	3
	TDS	mg/L		816	670	870	884
	Hardness	mg/L		471	415	504	533
nutrients	NH_3-N	mg/L		0.1	0.1	0.1	0.1
	NO_3-N	mg/L		1.08	0.709	0.645	0.733
	P	mg/L		0.05	0.081	0.05	0.05
heavy metals	Cu	mg/L		0.005	0.005	0.005	0.005
	Cd	mg/L		0.001	0.001	0.001	0.001
	Ni	mg/L		0.005	0.005	0.005	0.005
	Cr	mg/L		0.001	0.001	0.001	0.001
	Zn	mg/L		0.006	0.006	0.006	0.006
	Pb	mg/L		0.001	0.001	0.001	0.001

= Indicates below analytical detection level

T5 Tributary : 5 Location Description: Spring Creek at Starweather Avenue Latitude: 42.28903 Longitude: 89.05027				date	2/12/2024	5/13/2024	8/12/2024	11/12/2024
				time	9:44 AM	10:12 AM	9:34 AM	10:20 AM
	stream monitoring data	D.O.	mg/L		12.4	8.52	7.85	7.87
		pH			7.96	7.95	8.13	7.67
		Temp	deg. C		2.7	16.6	15.4	10.2
		Cond	uS/cm		1216	991	1230	1155
	conventional pollutants	Fecal	cfu/100 mL		31	408	710	406
		COD	mg/L		20	20	20	20
		TSS	mg/L		3	12	2	2
		TDS	mg/L		690	560	658	698
		Hardness	mg/L		420	361	460	469
	nutrients	NH_3-N	mg/L		0.1	0.1	0.1	0.1
		NO_3-N	mg/L		1.61	1.72	0.804	0.951
		P	mg/L		0.05	0.069	0.05	0.05
	heavy metals	Cu	mg/L		0.005	0.005	0.005	0.005
		Cd	mg/L		0.001	0.001	0.001	0.001
		Ni	mg/L		0.005	0.005	0.005	0.005
		Cr	mg/L		0.001	0.001	0.001	0.001
		Zn	mg/L		0.006	0.00972	0.006	0.006
		Pb	mg/L		0.001	0.001	0.001	0.001

= Indicates below analytical detection level

= Indicates below analytical detection level

= Indicates greater than analytical detection level

B.2 Precipitation Events and Runoff

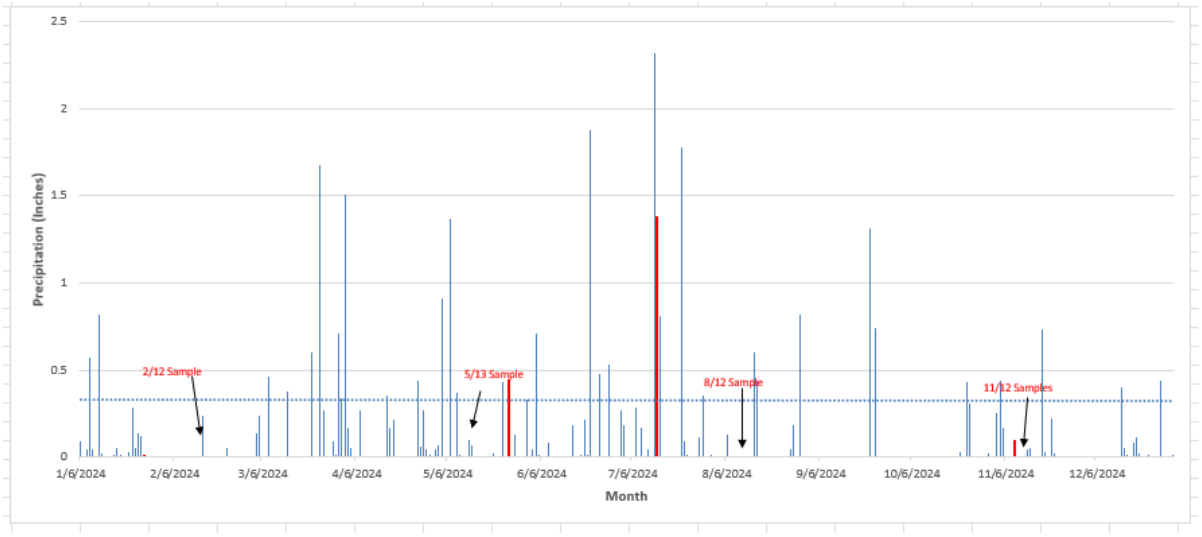
The average precipitation at Rockford Airport over 60 years is 36.6 inches in 111 rainfall events. During 2024, there were 109 rainfall events (>0.1") totaling 35.49 inches of rain. Table B-3 and Graph B-2 provide the historical and 2023 data for each rainfall event and days when samples were collected and are highlighted in red.

The automatic sampling stations are triggered by rain gauges at each location. They are tipping bucket-type gauges and do not record rain amounts other than the number of tips since the meter was last reset. The samplers are programmed to sample after the first 0.10 inch of rain is measured, pumping storm sewer water into the sample bottle in proportion to the amount of rainfall (i.e., the number of bucket tips). The resulting sample is thereby a precipitation-weighted sample. Data in the following tables is from Rockford International Airport. Because rainfall is not evenly distributed across Rockford, not all stations are triggered during all storm events. In addition, samplers periodically have mechanical problems and water samples may not be collected or may need to be discarded. Mechanical problems (battery outages, or fuse failures) most commonly arise from flooding of the underground vault that houses the samplers.

Table B-3 Historical Precipitation Events and Volume

Average Days of Precipitation , 0.01 inches or more														
	YRS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
ROCKFORD, IL 1961-2003	43	9	8	11	12	11	10	10	9	9	9	9	10	118
2004	1	7	7	19	6	17	9	10	10	1	13	14	5	118
2005	1	13	11	9	10	12	9	6	7	9	4	10	11	111
2006	1	8	6	14	11	16	12	11	9	13	11	5	8	124
2007	1	10	10	11	9	11	11	8	17	6	11	5	15	124
2008	1	13	15	10	11	10	15	11	6	8	8	8	16	131
2009	1	9	7	9	11	9	10	9	11	5	17	8	15	120
2010	1	5	9	9	11	11	16	13	9	10	5	2	14	114
2011	1	14	12	8	16	13	11	8	10	9	9	7	11	128
2012	1	9	8	12	10	11	4	12	8	7	10	3	12	106
2013	1	8	8	4	9	14	12	5	3	2	5	5	1	76
2014	1	13	8	12	13	12	16	8	10	8	9	8	6	123
2015	1	4	1	3	3	8	9	4	4	4	4	5	5	54
2016	1	2	2	6	4	8	3	5	10	3	3	3	7	56
2017	1	11	7	17	16	14	14	11	5	1	7	4	0	107
2018	1	8	15	8	12	12	12	9	13	11	11	11	9	131
2019	1	12	14	9	12	21	12	7	10	14	14	12	8	145
2020	1	12	5	11	17	12	11	9	2	11	12	6	4	112
2021	1	12	10	8	6	13	8	13	10	7	12	4	10	113
2022	1	10	8	10	17	9	12	12	9	6	6	9	8	116
2023	1	13	8	14	12	6	5	8	5	12	9	5	12	109
2024	1	15	2	10	13	12	12	13	7	2	4	10	9	109
MONTHLY PRECIPITATION (inches)														
	YRS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
ROCKFORD, IL 1961 - 2003	43	1.28	1.14	2.46	3.65	3.66	4.52	4.12	4.15	3.80	2.88	2.57	2.05	36.3
2004	1	0.46	0.79	4.04	1.79	8.21	3.40	3.25	6.89	0.08	2.56	3.03	0.61	35.1
2005	1	3.29	1.51	0.43	1.71	1.78	2.45	1.45	5.10	1.86	0.24	2.81	0.98	23.6
2006	1	2.98	0.66	4.05	4.30	3.72	3.32	3.64	3.55	2.91	3.52	2.69	2.52	37.9
2007	1	0.79	1.43	3.25	2.73	1.25	4.07	2.43	13.98	2.04	1.44	0.40	3.27	37.1
2008	1	1.14	3.06	2.23	5.42	3.12	6.27	7.35	1.91	6.36	1.68	1.39	4.18	44.1
2009	1	0.81	2.22	5.80	4.60	3.35	7.36	2.60	7.19	1.69	5.94	1.44	3.55	46.6
2010	1	0.85	0.66	1.41	2.78	5.82	4.78	9.40	1.96	1.89	3.02	0.25	1.73	34.6
2011	1	0.88	1.90	3.41	3.40	3.18	3.39	8.00	4.47	5.33	1.58	4.10	2.06	41.7
2012	1	1.23	1.31	2.09	4.13	1.62	0.61	2.69	2.38	1.74	2.42	0.60	2.49	23.31
2013	1	2.99	1.96	1.97	7.82	2.91	7.33	1.83	2.61	1.28	3.02	1.95	0.21	35.88
2014	1	1.98	1.76	1.03	2.87	2.33	8.06	2.46	5.76	2.00	2.69	1.63	0.93	33.5
2015	1	1.26	0.14	1.19	2.73	4.70	4.59	3.36	4.71	2.70	1.98	3.84	4.38	35.58
2016	1	0.98	0.53	3.85	2.64	2.95	2.00	5.64	4.29	2.84	1.23	2.58	1.82	31.35
2017	1	2.25	1.79	2.74	6.83	4.90	7.49	7.43	0.88	0.39	5.59	0.96	0.00	41.25
2018	1	1.34	3.61	1.22	1.16	4.68	14.23	2.38	5.31	4.65	5.40	2.06	2.66	48.70
2019	1	2.27	4.03	2.09	4.26	8.7	3.2	2.8	5.54	9.11	3.63	1.85	1.61	49.09
2020	1	2.54	0.59	5.01	2.79	4.03	3.87	3.1	0.52	6.66	2.12	1.78	1.76	34.73
2021	1	2.04	0.81	1.49	1.66	2.36	1.26	2.27	3.61	0.53	5.36	0.38	2.42	24.19
2022	1	0.56	1.07	2.92	4.48	3.47	2.66	5.43	8.88	5.84	1.52	1.46	2.56	40.85
2023	1	2.07	3.79	3.3	2.68	2	1.9	4.32	1.41	2.19	4.6	1.07	3.13	32.46
2024	1	2.28	0.29	4.58	3.89	3.96	4.47	7.79	2.22	2.05	0.79	2.04	1.13	35.49

Graph B-2 2024 Precipitation Events and Volume



B.3 Storm Water Pollutant Load

The EPA Simple Method was used to develop storm runoff volumes and associated pollutant loads. The method is discussed in the EPA guidance manual[1]. In the Simple Method, annual pollutant loads are estimated as the product of storm runoff volume and average pollutant concentrations, summed over the course of one year. Annual runoff was estimated as the product of rainfall, a runoff coefficient, and the fraction of annual rainfall events that produce runoff (recommended by USEPA guidance as 0.9). The runoff coefficients account for imperviousness and were estimated from 30-m pixel satellite imagery from the Illinois GAP Project[2].

Table B-4 provides the updated event average concentrations (EAC) and estimates for 2024 storm water pollutant loads. These loads do not include areas outside City Limits or any baseflow (or natural background) pollutant loads. The averages were calculated from the data presented in Table B-1.

[1] Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA-833-B-92-002. November 1992.

[2] Illinois Natural History Survey's 1999-2000 1:100,000 Scale Illinois Gap Analysis Land Cover Classification, Version 2.0, September 2003.

Table B-4 - Stormwater Pollutant Loads for 2023 and 2024

Stormwater Pollutant Loads for 2023

Pollutant	Event Average Concentration		Pollutant Load	
Total Suspended Solids	17.0	mg/L	1,400,000	lbs/yr
Total Dissolved Solids	100.0	mg/L	8,500,000	lbs/yr
Biochemical Oxygen Demand	14.0	mg/L	1,200,000	lbs/yr
Chemical Oxygen Demand	63.0	mg/L	5,400,000	lbs/yr
Ammonia Nitrogen	0.4	mg/L	30,000	lbs/yr
Nitrate Nitrogen	1.0	mg/L	100,000	lbs/yr
Total Kjeldahl Nitrogen	2.1	mg/L	200,000	lbs/yr
Total Nitrogen	0.7	mg/L	100,000	lbs/yr
Total Phosphorus	0.4	mg/L	31,000	lbs/yr
Copper	16.0	ug/L	1,400	lbs/yr
Cadmium	1.0	ug/L	100	lbs/yr
Zinc	42.0	ug/L	3,600	lbs/yr
Lead	2.0	ug/L	200	lbs/yr
Fecal Coliform Bacteria	11822.0	CFU/100mL	4,600,000	Billion CFU/yr
FOG	5.0	mg/L	400,000	lbs/yr

Stormwater Pollutant Loads for 2024

Pollutant	Event Average Concentration		Pollutant Load	
Total Suspended Solids	54.0	mg/L	5,000,000	lbs/yr
Total Dissolved Solids	184.0	mg/L	17,100,000	lbs/yr
Biochemical Oxygen Demand	12.0	mg/L	1,100,000	lbs/yr
Chemical Oxygen Demand	81.0	mg/L	7,500,000	lbs/yr
Ammonia Nitrogen	0.4	mg/L	40,000	lbs/yr
Nitrate Nitrogen	0.6	mg/L	100,000	lbs/yr
Total Kjeldahl Nitrogen	3.8	mg/L	400,000	lbs/yr
Total Nitrogen	0.5	mg/L	50,000	lbs/yr
Total Phosphorus	0.1	mg/L	8,900	lbs/yr
Copper	13.0	ug/L	1,200	lbs/yr
Cadmium	1.0	ug/L	100	lbs/yr
Zinc	65.0	ug/L	6,000	lbs/yr
Lead	4.0	ug/L	400	lbs/yr
Fecal Coliform Bacteria	20997.0	CFU/100mL	8,900,000	Billion CFU/yr
FOG	13.0	mg/L	1,200,000	lbs/yr

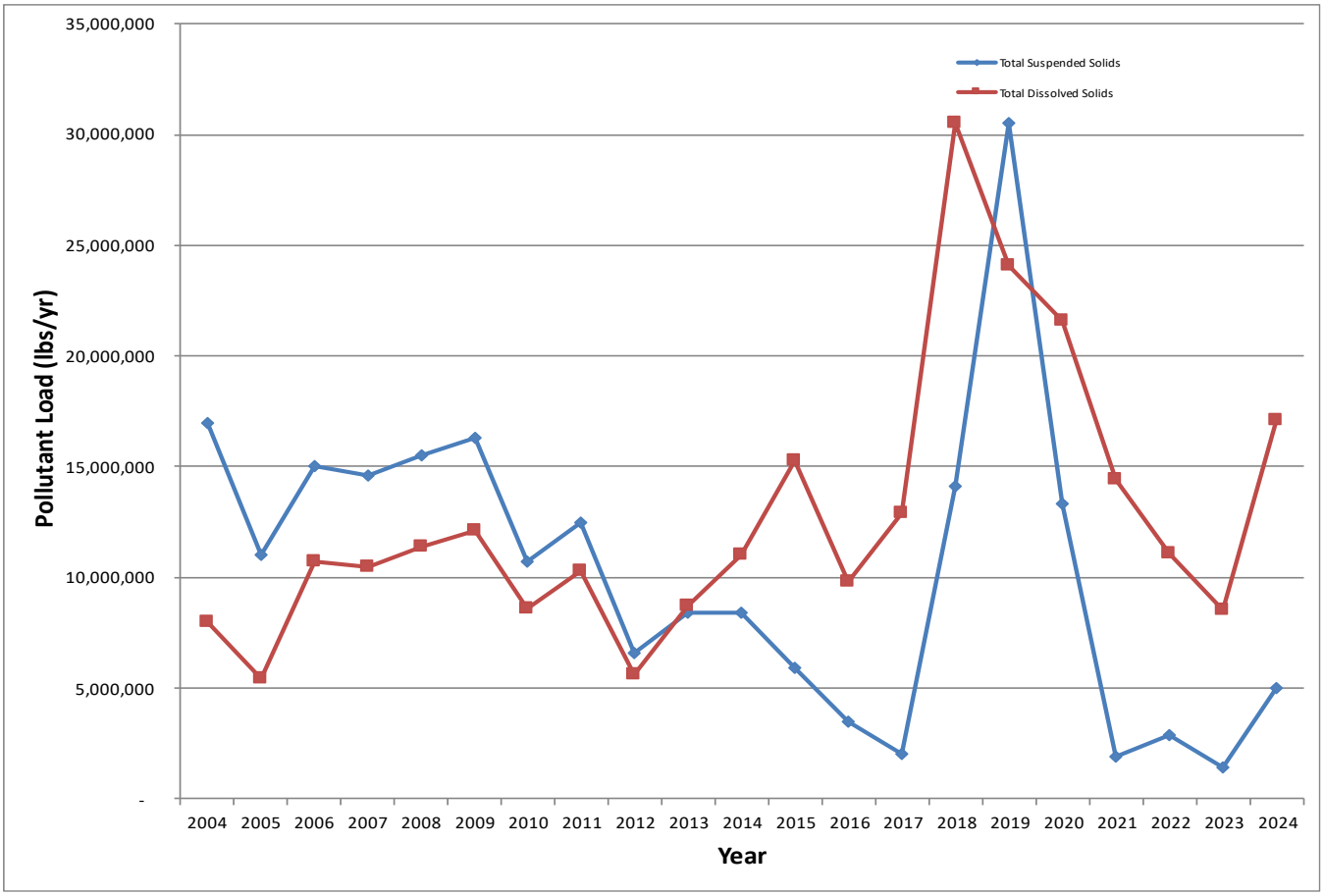
Rainfall quantities in 2024 were higher than 2023 but about one inch below the long-term precipitation average. Pollutant loadings were higher in 2024 than in 2023 for all parameters except BOD, total nitrogen, total phosphorus and copper.

Graphs B.3.1

The following four plot graphs represent storm water pollutant loads from the MS4 for several key parameters. Trends in these plots are a function of not only changes in the average concentration but also changes in annual runoff volumes.

B.3.1 Annual Solids Loading

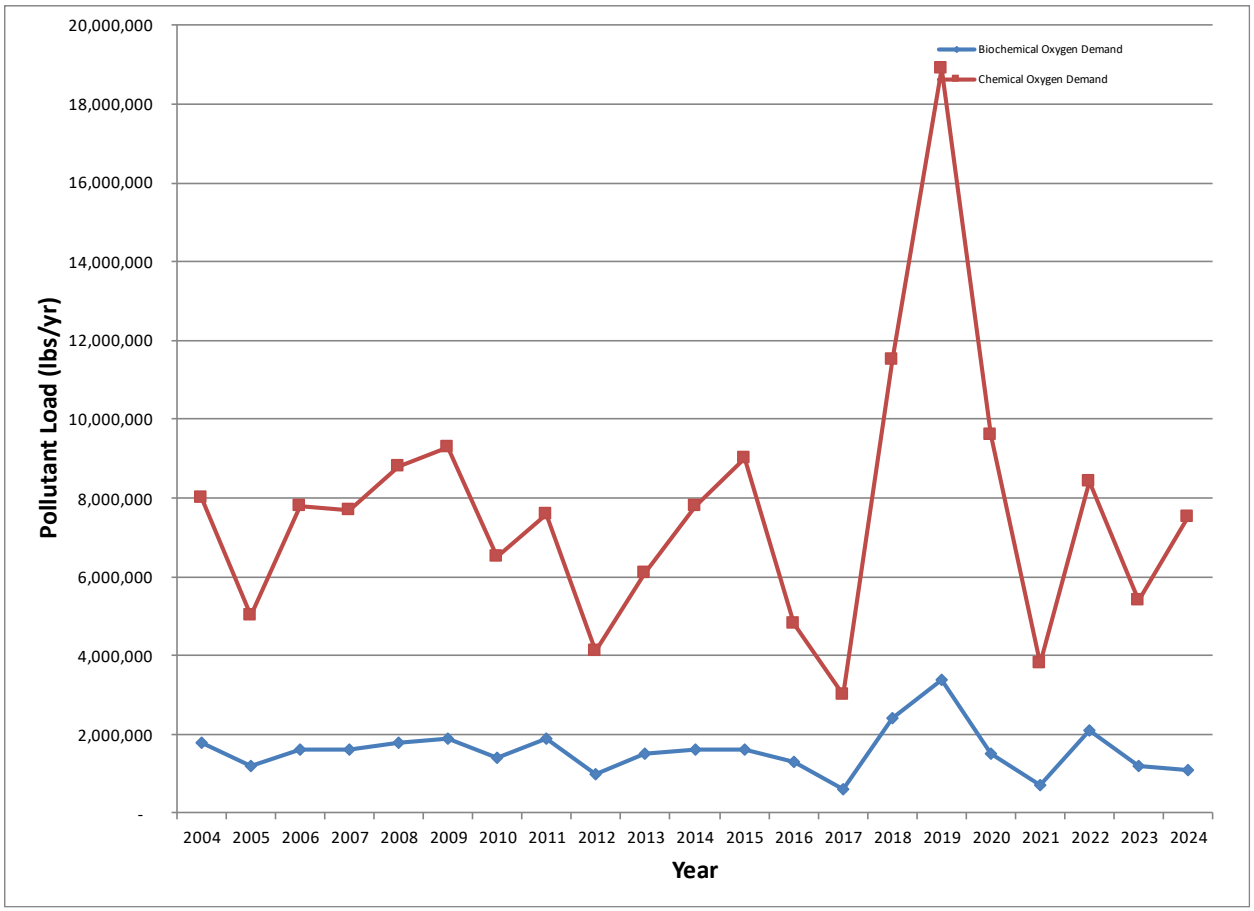
Solids loading to the streams increased in 2024 due to the higher precipitation.



Graph B.3.1 Total Suspended and Dissolved Solids

B.3.2 Oxygen Demand

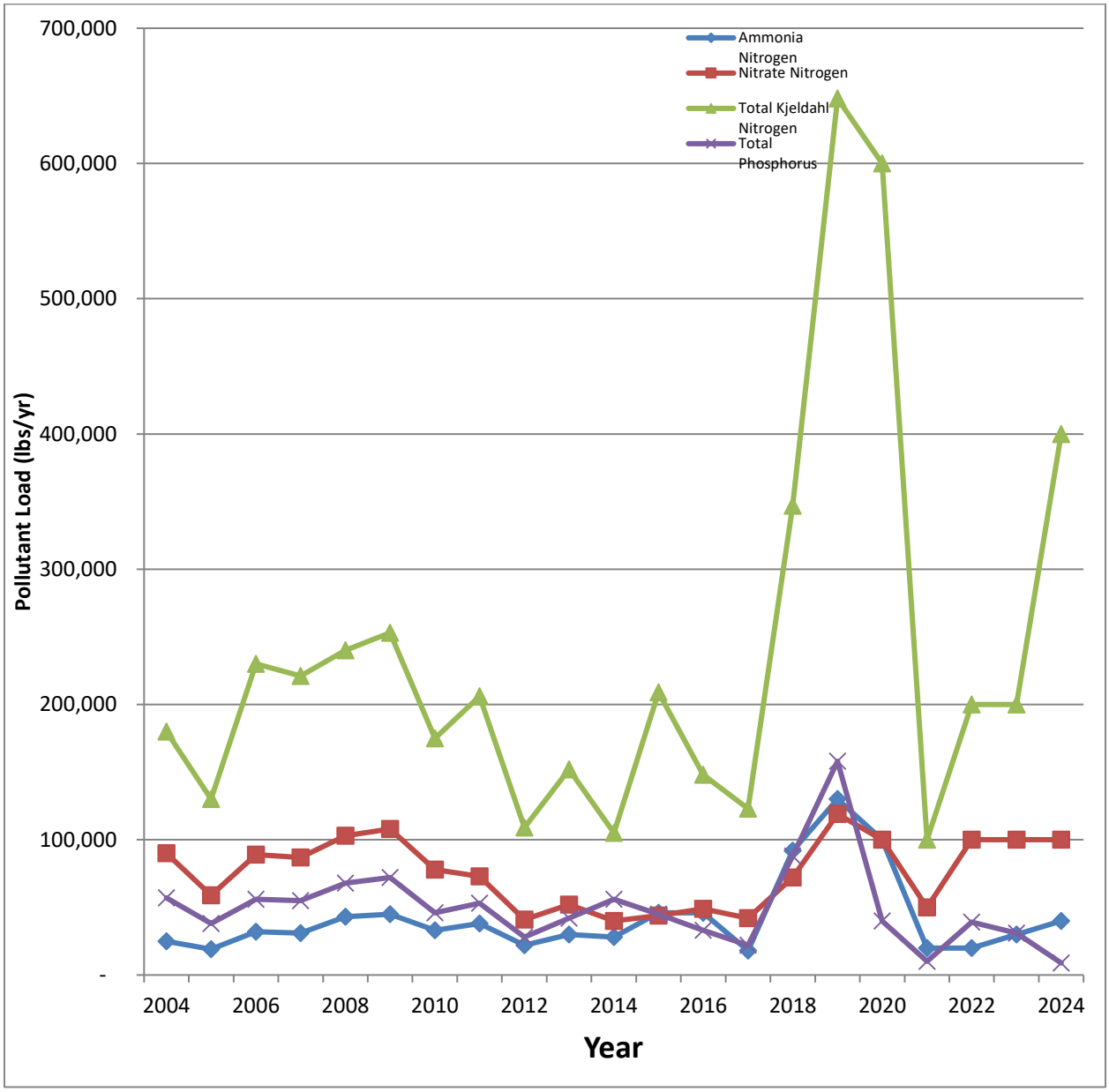
The oxygen demand over time has stayed very similar from one year to the next until the upward trend in 2018 and 2019, which trended downward with lower precipitation rates in 2021 and 2023. BOD has less variation, but COD has some larger swings in the loading values depending on precipitation amounts.



Graph B.3.2 Oxygen Demand

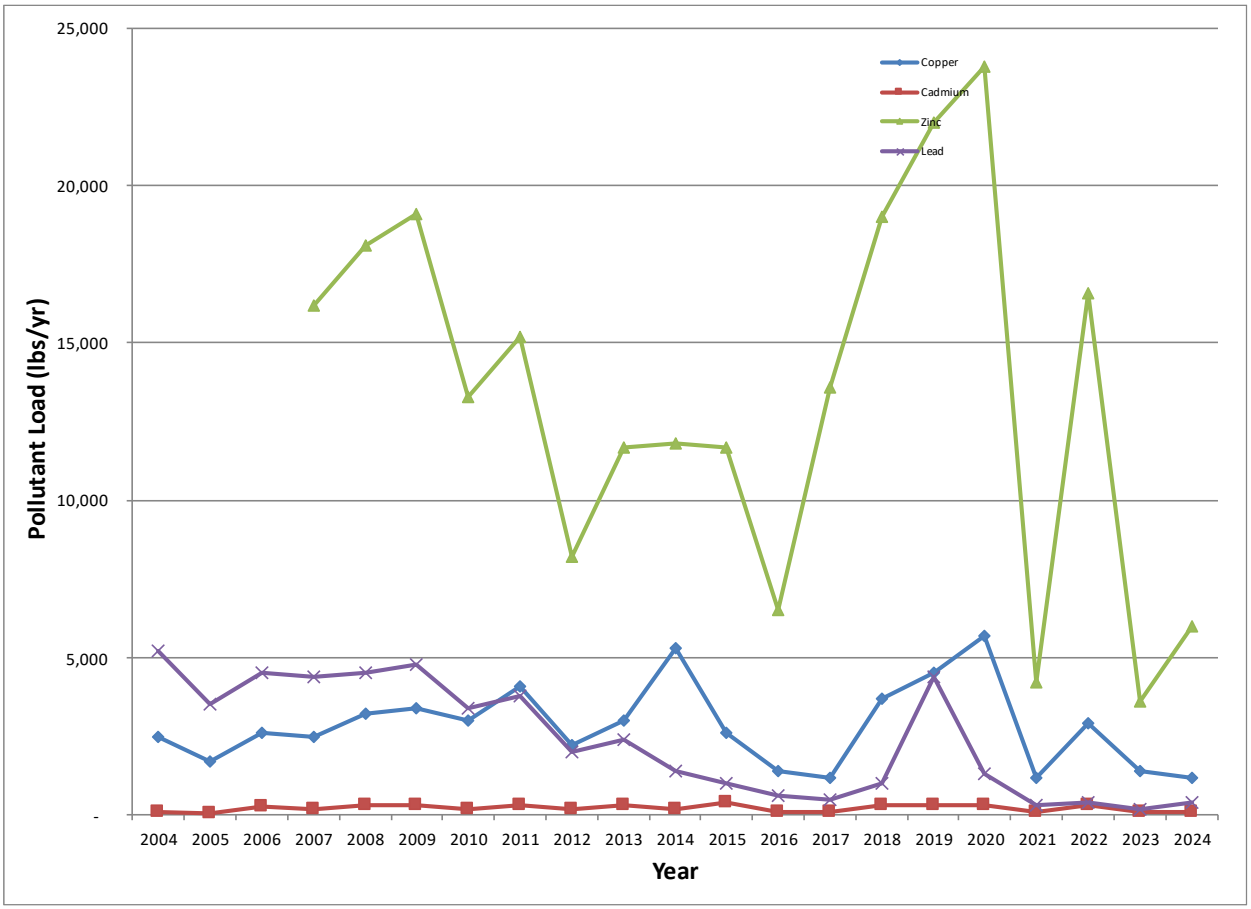
B.3.3 – Nutrient Loadings

The nutrient loadings showed an increasing trend from 2018 to 2020 but were substantially reduced in 2021. Nutrient loadings increased in 2022 and remained steady in 2023 with an increase in TKN in 2024.



B.3.4 Metals Loading

The metal loadings fluctuate with the amount of precipitation. The overall trend is the metal loading rates have been decreasing with cadmium and lead levels remaining very low.



Graph B.3.4 Metals Loadings

APPENDIX C

(MAINTENANCE OF CITY OWNED/MANAGED DETENTION BASINS AND FLOOD CONTROL STRUCTURES)

City of Rockford Detention Basins and Flood Control Structures

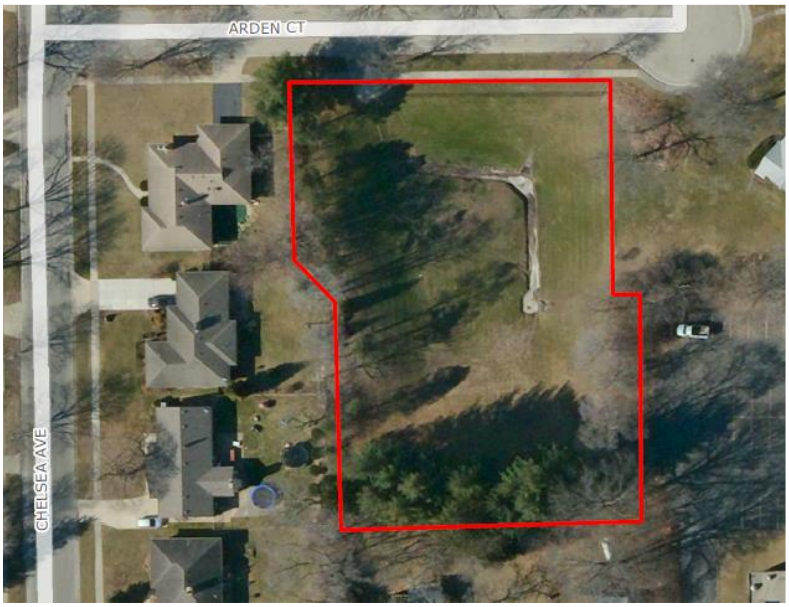
Detention Basins

1. Arden Court

Year Built: 1990 Watershed: Keith Creek

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: SE Corner of Chelsea Avenue & Arden Court



Maintenance Activities by Year:

Year	Maintenance
2015	Removed 4.5 tons of sediment, adjusted outlet flare & routine mowing
2016	Removal of sediment & routine mowing
2017	Sediment removal, trash rack cleanout, routine mowing.
2018	Sediment removal, trash rack cleanout, routine mowing.
2019	Sediment removal from concrete channel and trash rack cleanout. City has contracted with Artisan to study drainage in the area due to flooding during large events.
2020	Removed 100 ton of sediment from the basin and completed a drainage study of the basin which is under review.
2021	Trash rack cleanout and mowing.
2022	Trash rack cleanout and mowing.
2023	Trash Rack cleanout & Mowing. HR Green completing analysis for retrofitting
2024	Trash rack cleanout and mowing.

2. Lowes Distribution Center

Year Built: 2005 Watershed: Fuller Creek

Owners: City of Rockford Maintenance Responsibility: City of Rockford (structural), Lowes (mowing)

Location: SE Springfield Ave & Montague Rd.

Maintenance Activities by Year:

Year	Maintenance
2015	Routine Mowing
2016	Routine Mowing
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing, HR Green completing analysis for retrofitting
2024	Routine Mowing

Notes: This detention basin was built in 2006 with a multi-stage outlet structure. Since the basin was recently built and mowing has been performed regularly, maintenance on the basin itself has been minimal. No additional retrofitting is necessary for this basin.

3. Greater Rockford Industrial Park

Year Built: 1984 Watershed: Southeast

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1052 Research Parkway

Maintenance Activities by Year:

Year	Maintenance
2015	Routine Mowing
2016	Routine Mowing
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing, HR Green completing analysis for retrofitting
2014	Routine Mowing

4. Elliot Golf Course Regional Detention Facility

Year Built: 1968

Watershed: Manning Creek

Owners: Rockford Park District

Maintenance Responsibility: City of Rockford (structural), Rockford Park District (weekly)

Location: 888 South Lyford Road

Maintenance Activities by Year:

Year	Maintenance
2015	Routine Mowing
2016	Routine Mowing, debris removal
2017	Woody debris removal, pipe repair, erosion repair and stabilization
2018	Routine Mowing
2019	No required Maintenance
2020	Routine Mowing
2021	Facility was closed by Rockford Park District. Minimal maintenance taking place
2022	Expansion of basin has been approved to accommodate new casino to west. Construction being done by casino in 2023.
2023	Basin expanded to address added casino runoff, HR Green completing analysis for retrofitting
2024	While the basin structure is still be responsibility of the City of Rockford the basin property, which includes the basin and golf course, was purchased by Severson Dells where then intend to convert it to a natural area.

Notes: This is a wet detention basin. In 2008, the basin was dredged, re-graded and retrofitted into a sediment basin to make it a regional facility. While the basin structure is still be responsibility of the City of Rockford the basin property, which includes the basin and golf course, was purchased by Severson Dells where they intend to convert it to a natural area.

5. Logistics Park Detention Basin

Year Built: 2005 Watershed: Airport East

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1650 Blackhawk Road

Maintenance Activities by Year:

Year	Maintenance
2015	Dry wells installed for better drainage, Routine Mowing
2016	Routine Mowing
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine mowing and repair of gully where it enters SE drainageway.
2022	Routine Mowing
2023	Routine Mowing, HR Green completing analysis for retrofitting
2024	Routine Mowing

Notes: The City became aware this basin was not completed properly in 2012. An agreement was entered with a local contractor to complete the project, which was done in 2014. This basin discharges through dry wells and overland flow.

6. New Towne and Javelin Drive Detention Basin

Year Built: 1997 Watershed: Keith Creek

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: NW New Towne and Javelin Drives

Maintenance Activities by Year:

Year	Maintenance items
2014	Removed 37.66 tons of sediment from concrete channel and reseeded and routine mowing
2015	Routine Mowing
2016	Removal of 1 ton of sediment and added riprap to prevent erosion. Routine Mowing
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing, HR Green completing analysis for retrofitting
2024	Routine Mowing

Notes: The City became aware this basin was their maintenance responsibility in 2014 and has not considered retrofitting. After inspecting the basin, the City removed sediment accumulated in the concrete channel and reseeded the disturbed areas.

7. Linden Pointe Detention Basin

Year Built: 2007

Watershed: Airport East

Owners: Rockford Park District

Maintenance Responsibility: City of Rockford (structural)
Rockford Park District (routine maintenance)

Location: Scarlet Oak Drive and Bypass 20

Maintenance Activities by Year:

Year	Maintenance items
2015	Routine Mowing & tree removal
2016	Routine Mowing & repairs to berm.
2017	Routine Mowing
2018	Routine Mowing
2019	Routine removal & tree removal
2020	Routine Mowing
2021	Minimal maintenance by the Rockford Park District though still operational.
2022	Minimal maintenance by the Rockford Park District though still operational.
2023	Minimal maintenance by the Rockford Park District though still operational.
2024	Basin Mowed

Notes: In 2016, the south and southwest berms of the basin were removed and replaced. Ditch cleaning and repairs were completed from the outlet west through several properties. The park district has let this property become a natural growth. No additional retrofitting is necessary.

8. Harmon Park Regional Detention Basin

Year Built: 2016 Watershed: Buckbee

Owners: Rockford Park District Maintenance Responsibility: Rockford Park District, City of Rockford maintains structures.

Location: Executive 1924 East Gate Parkway

Maintenance Activities by Year:

Year	Maintenance items
2016	Regional basin was built.
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing & Removal of Sediment from Baskets
2020	Routine Mowing
2021	Routine mowing, removal of sediment from trash racks and repair of gullies
2022	Routine Mowing
2023	Routine Mowing
2024	Routine Mowing

Notes: See Appendix D for the history of the basin and the Harmon Park Drainage efforts. At the request of the park district this basin was planted to turf grass so they could continue to utilize it for summer activities. Due to that retrofitting this basin may not be an option.

9. Harmon Park Drainage Improvements

Year Built: 2018 Watershed: Buckbee

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 3522 Westgate & 1827 Nebraska

Maintenance Activities by Year:

Year	Maintenance items
2018	Ponds Built
2019	Routine Mowing
2020	Routine Mowing
2021	Routine mowing
2022	Routine Mowing
2023	Routine Mowing
2024	Routine Mowing

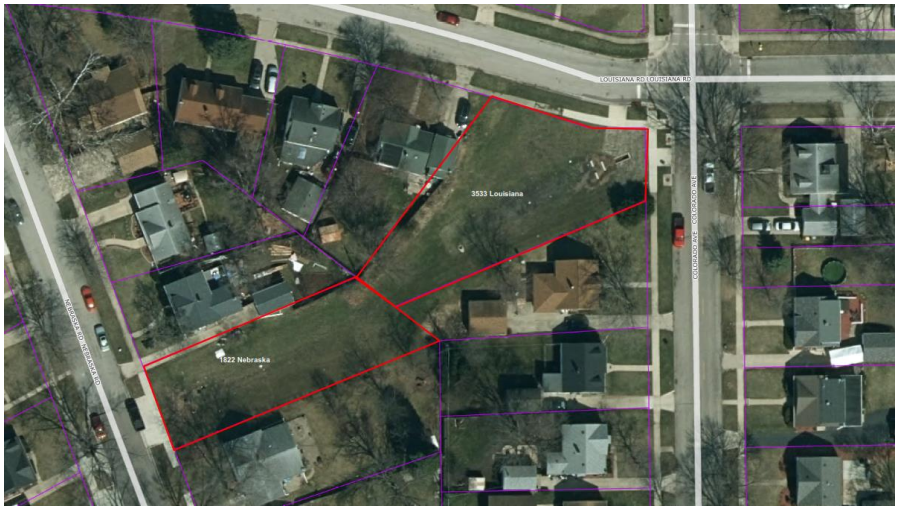
Notes: See Appendix D for the history of the basin and the Harmon Park Drainage efforts.

10. Harmon Park Drainage Improvements

Year Built: 2018 Watershed: Buckbee

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1822 Nebraska & 3533 Louisiana



Maintenance Activities by Year:

Year	Maintenance items
2018	Ponds Built
2019	Routine Mowing
2020	Routine Mowing
2021	Routine mowing
2022	Routine Mowing
2023	Routine Mowing
2024	Routine Mowing

Notes: See Appendix D for the history of the basin and the Harmon Park Drainage efforts.

11. Harmon Park Drainage Improvements

Year Built: 2022 Watershed: Buckbee

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1740 Colorado & 1731 MacArthur

Maintenance Activities by Year:

Year	Maintenance items
2022	Ponds Built
2023	Routine Mowing
2024	Routine Mowing

Notes: See Appendix D for the history of the basin and the Harmon Park Drainage efforts.

12. Harmon Park Drainage Improvements

Year Built: 2022 Watershed: Buckbee

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1724 MacArthur & 1715 Sexton

Maintenance Activities by Year:

Year	Maintenance items
2022	Ponds Built
2023	Routine Mowing
2024	Routine Mowing

Notes: See Appendix D for the history of the basin and the Harmon Park Drainage efforts.

13. Gregory Heights Drainage Improvements

Year Built: 2021 Watershed: Madigan

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: NW Newburg & Geneva & 1405 Geneva

Maintenance Activities by Year:

Year	Maintenance items
2021	Ponds Built
2022	Routine Mowing
2023	Routine Mowing
2024	Routine Mowing

Notes: Series of detention basins built to improve neighborhood drainage.

14. Gregory Heights Drainage Improvements

Year Built: 2022 Watershed: Keith

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 5111 Carter Ct.

Maintenance Activities by Year:

Year	Maintenance items
2022	Ponds Built
2023	Routine Mowing
2024	Routine Mowing

Notes: Series of detention basins built to improve neighborhood drainage. See Appendix D for Overall Exhibit

15. Gregory Heights Drainage Improvements

Year Built: 2022 Watershed: Keith

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1214 Fieldcrest

Maintenance Activities by Year:

Year	Maintenance items
2022	Ponds Built
2023	Routine Mowing
2024	Routine Mowing

Notes: Series of detention basins built to improve neighborhood drainage. See Appendix D for Overall Exhibit

16. Gregory Heights Drainage Improvements

Year Built: 2022 Watershed: Keith

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1218 Esmond Dr.

Maintenance Activities by Year:

Year	Maintenance items
2022	Ponds Built
2023	Routine Mowing
2024	Routine Mowing

Notes: Series of detention basins built to improve neighborhood drainage. See Appendix D for Overall Exhibit

17. Executive Parkway Detention Basin

Year Built: 1980 Watershed: Keith Creek

Owners: City of Rockford Maintenance Responsibility: Mulford Village Office Park Owners Association

Location: Executive Parkway east of Mulford Road

Maintenance Activities by Year:

Year	Maintenance items
2015	Inspection indicated no immediate maintenance is needed.
2016	Inspection indicated no immediate maintenance is needed.
2017	Association contacted to complete maintenance
2018	Routine Mowing
2019	Association contacted to complete maintenance
2020	Routine Mowing
2021	Association contacted to repair unseated pipe though basin is still operational
2022	Minimal Maintenance
2023	Minimal Maintenance
2024	Minimal Maintenance

Notes: This is a wet basin retrofitting would not be effective. No maintenance requirements.

18. Fire Station #3 Detention Basin

Year Built: 2015 Watershed: South Main

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 802 Marchesano Dr.

Maintenance Activities by Year:

Year	Maintenance items
2015	Detention basin was built.
2016	Routine mowing
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing. HR Green Completing analysis for possible retrofitting.
2024	Routine Mowing

Notes: No concrete channels were installed in this basin to allow for additional infiltration. No maintenance requirements.

19. Police Station #1 Detention Basin

Year Built: 2016 Watershed: Kent Creek

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 227 Avon St.

Maintenance Activities by Year:

Year	Maintenance items
2016	Basin Built in 2016
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing HR Green Completing analysis for possible retrofitting
2024	Repaired undercutting channel, routine mowing

Notes: No concrete channels were installed in this basin to allow for additional infiltration. No maintenance requirements.

20. Airport & Assembly Dr. Detention Basin

Year Built: 2016 Watershed: Buckbee

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 1004 39th Ave.

Maintenance Activities by Year:

Year	Maintenance items
2016	Basin was built in 2016
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing, HR Green Completing analysis for possible retrofitting
2024	Routine Mowing

Notes: No concrete channels were installed in this basin to allow for additional infiltration. No maintenance requirements.

21. District 3 Police Station

Year Built: 1996 (Approx.) Watershed: Keith Creek

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: 557 S. New Towne Dr.

Maintenance Activities by Year:

Year	Maintenance items
2015	Routine Mowing
2016	Routine Mowing
2017	Trees cleared from basin & Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing
2024	Routine Mowing

Notes: City took over ownership of the post office property in 2014 and became aware that this area was a basin in January 2017. Until then it was treated as part of the overall property to be mowed. The basin is planted to grass to allow for additional infiltration.

Dams, Levees & Drainageways

1. Alpine Dam (Per the City of Rockford's MS4 permit this a one of the City's floatable locations)

Year Built: 1942

Watershed: Keith Creek

Owners: City of Rockford

Maintenance Responsibility: City of Rockford & Rockford Park District

Location: 623 N. Alpine Road (Aldeen Park)

Maintenance Activities by Year:

Year	Maintenance items
2014	Replacement of handrails, mowing of the embankments and removal of approximately 38 tons of accumulated silt, debris, and floatables from the trash rack and spillway.
2015	Removal of approximately 17 tons of sediment and debris, mowing of embankments. Reseeded bottom of the basin with a native prairie mix.
2016	Routine Mowing & removal of approximately 11.5 ton of sediment & debris. New trash racks were also installed.
2017	Removal of approximately 3 ton of debris from the trash rack and routine mowing.
2018	Removal of approximately 6 ton of debris from the trash rack and routine mowing.
2019	Removal of debris from trash rack. Plans developed to make upgrades in 2020.
2020	Phase 1 of the rehab project began which included paint removal, joint repair and automating the gate.
2021	Phase 1 of project is in final stages. Phase 2 is scheduled for 2022 pending IDNR review.
2022	Routine Mowing. We are still waiting for IDNR to complete their review for Phase 2 of project.
2023	Routine Mowing. IDNR approved Phase 2 of the project which went out to bid in late 2023 and completion scheduled in 2024.
2024	Phase 2 of Dam rehabilitation completed. See Section 2.4.1 for details

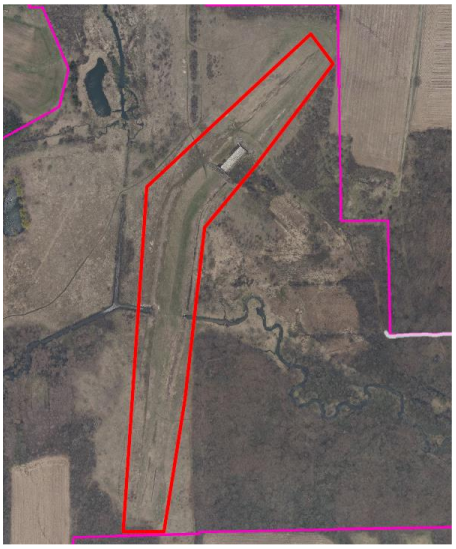
Notes: The bottom of the Alpine Dam basin was planted to native grasses in 2015. No addition retrofitting is necessary. In 2018, the City of Rockford entered into an agreement with HNTB Corporation to update plans and specifications to rehabilitate the dam. The City started the project in 2020 with phase 1. Phase 2 completed in 2024.

2. Page Park Dam

Year Built: 1980 Watershed: North Kent Creek

Owners: City of Rockford Maintenance Responsibility: City of Rockford & Rockford Park District

Location: Porter Road (Page Park)



Maintenance Activities by Year:

Year	Maintenance items
2014	Routine mowing, brush cutting and spraying, removal of debris from trash rack and removal of several beaver dams. The City installed a depth gauge at this dam.
2015	Routine mowing, tree and brush removal at the toe.
2016	Routine Mowing, removal of approximately 5 ton of sediment.
2017	Routine Mowing.
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing, vegetation removal and trash rack cleanout
2021	Routine removal, vegetation & brush removal. Electrical upgrades are scheduled in 2022.
2022	Routine Mowing & Electrical Upgrades
2023	Routine Mowing, Camera installation and repairs to dam structure bases on ACOE inspection reports.
2024	Routine Mowing

Notes: The bottom of this basin is native grasses. No retrofitting is necessary. This dam is inspected annually by the US Army Corps of Engineers as well as the City of Rockford per IDNR requirements. Upgrades to concrete spillway are scheduled for 2023 and completion of electrical upgrades which includes a camera and rain gauge.

3. Levings Lake Dam

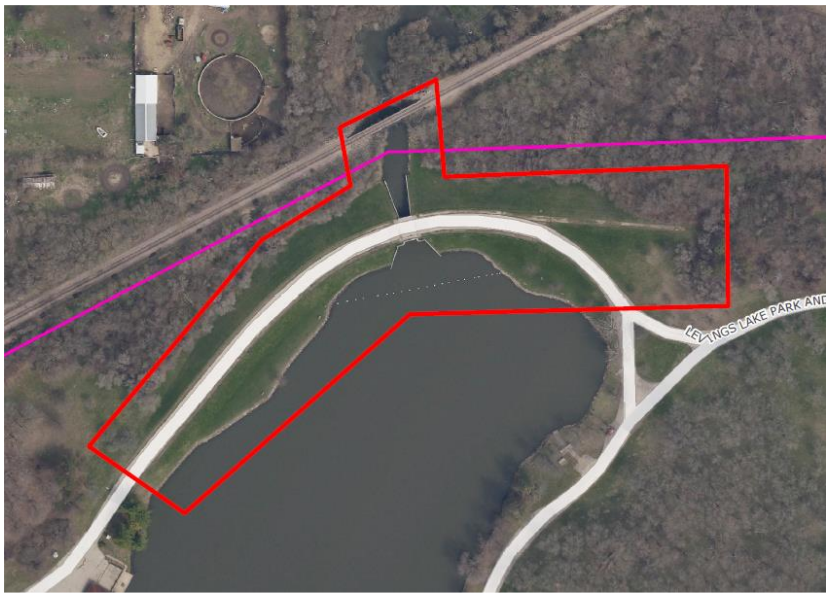
Year Built: 1935

Watershed: South Kent Creek

Owners: City of Rockford

Maintenance Responsibility: City of Rockford & Rockford Park District

Location: South Pierpont Avenue (Levings Lake Park)



Maintenance Activities by Year:

Year	Maintenance items
2014	Routine mowing of the embankments. The City installed a depth gauge.
2015	Routine mowing, tree and brush removal at the toe
2016	Routine mowing, tree and brush removal at the toe. Silt removal at the inlet of the lake
2017	Routine Mowing
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing and woody debris removal at the toe of the dam. An IEPA 319 grant was received to complete a watershed study which is being finalized.
2021	Routine Mowing, IEPA 319 grant is ongoing.
2022	Routine Mowing, Wetlands we expanded to south utilizing GIGO funds received by the Rockford Park District.
2023	Routine Mowing
2024	Routine Mowing

Notes: This dam is inspected annually by the US Army Corps of Engineers as well as the City of Rockford per IDNR requirements. This is a wet basin so retrofitting is not necessary

4. Diversion Channel & Levee

Year Built: 1981 Watershed: North Kent Creek

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: West of Meridian Road along West State Street proceeding north to quarry north of Auburn Street.

Maintenance Activities by Year:

Year	Maintenance items
2015	Routine mowing. Survey of the channel
2016	Routine Mowing, sediment removal in the bottom of the channel and drop structure & tree & brush removal at specified areas.
2017	Routine Mowing.
2018	Routine Mowing, repairs to eroding channel at the Auburn St. bridge.
2019	Routine Mowing
2020	Routine Mowing
2021	Routine Mowing
2022	Routine Mowing
2023	Routine Mowing
2024	Routine Mowing

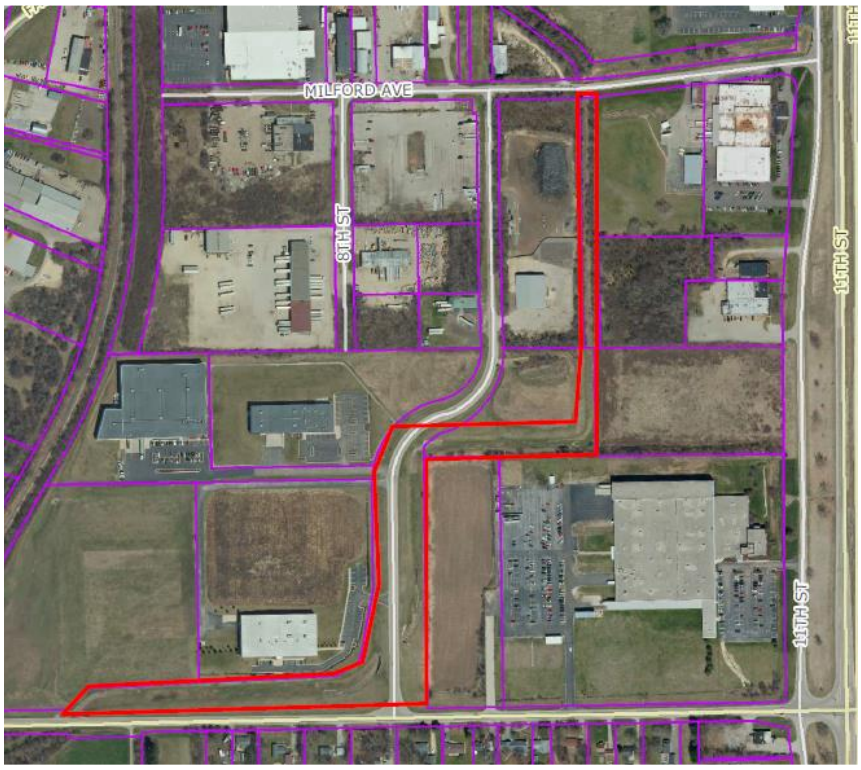
Notes: Retrofitting is not necessary for this channel. This structure is inspected annually by the US Army Corps of Engineers. In 2016, channel improvements were completed that included tree removal along the levee on West State Street, various tree removal within the channel and at the drop structure. Silt was removed from the bottom and sides of the channel from Auburn St to just north of the drop structure, including removal of the silt in the drop structure. Erosion repairs were completed at various locations along the channel.

5. Logistics Park Drainageway

Year Built: Unknown Watershed: Airport East

Owners: City of Rockford Maintenance Responsibility: City of Rockford

Location: Blackhawk Road proceeding North on Logistics Parkway



Maintenance Activities by Year:

Year	Maintenance items
2015	Routine mowing, tree and brush removal. Erosion repair.
2016	Routine mowing and tree removal along the slopes.
2017	Routine Mowing & trees removal just south of Milford Road.
2018	Routine Mowing
2019	Routine Mowing
2020	Routine Mowing
2021	Routine mowing, repair of gully just north of Blackhawk along Logistics Rd.
2022	Routine Mowing
2023	Routine Mowing, channel expanded north of the area on the above map.
2024	Routine Mowing

Notes: Retrofitting is not necessary for this channel. As part of the Logistics Drive expansion this channel is being widened to the north to lessen flooding issues.

APPENDIX D

(MULTI-YEAR FLOOD CONTROL PROJECTS)

Keith Creek Mitigation – Keith Creek Watershed

In September 2006, August 2007, and June 2008, portions of the City of Rockford, Illinois were devastated by severe flooding. Our community had over 900 homeowners that were affected by the recurring flooding. The City Council voted to financially assist a not-for-profit organization in the acquisition and maintenance of 130 homes that are adjacent to Keith Creek in the Churchill Park neighborhood due to the life-safety magnitude of the situation, and with the knowledge that federal funds take considerable time to secure. The economic recession and job loss has only made matters even more urgent, with Rockford having the largest job loss in the United States from January 2009 to January 2010.

These acquired homes will be part of the Keith Creek Mitigation Project, which is a large FEMA mitigation and flood control project that will widen a 25 foot creek to a 200 foot wide creek. Once the widening is completed, the remaining 200+ homes and 50+ businesses will see a drastic drop in their flood risk.

Below is a summary of the grants received for the project:

IEMA HMGP 1 & DCEO CDBG 1: The City received $3,014,025 in federal hazard mitigation funds to purchase and demolish 34 of the 115 properties located in the floodplain. The City received $1,004,675 from DCEO to match these federal funds. Property demolitions were completed in 2010.

IEMA HMGP 2 & DCEO CDBG 2: The City received $2,226,740 in federal hazard mitigation funds to purchase and demolish another 38 properties. The City received $1,913,511 from DCEO to match these federal funds. Property demolitions were completed in 2011.

DCEO CDBG "IKE" 3: The City received $3,443,546 in DCEO funds to purchase and demolish 43 properties. Property demolitions were completed in 2013-2014.

A Keith Creek Corridor Study utilizing IEPA funding has recently been completed suggesting long range plans for the area though funding for the project has not been determined.

In 2021, the City of Rockford completed a Flood Mitigation Engineering Report to provide an analysis of Keith Creek and concepts to decrease flooding in the area.

In 2024 the City received funding to acquire and demolish the strip mall at 2233 Charles Street.

Harmon Park Drainage Basin (Rolling Green) – Buckbee Watershed

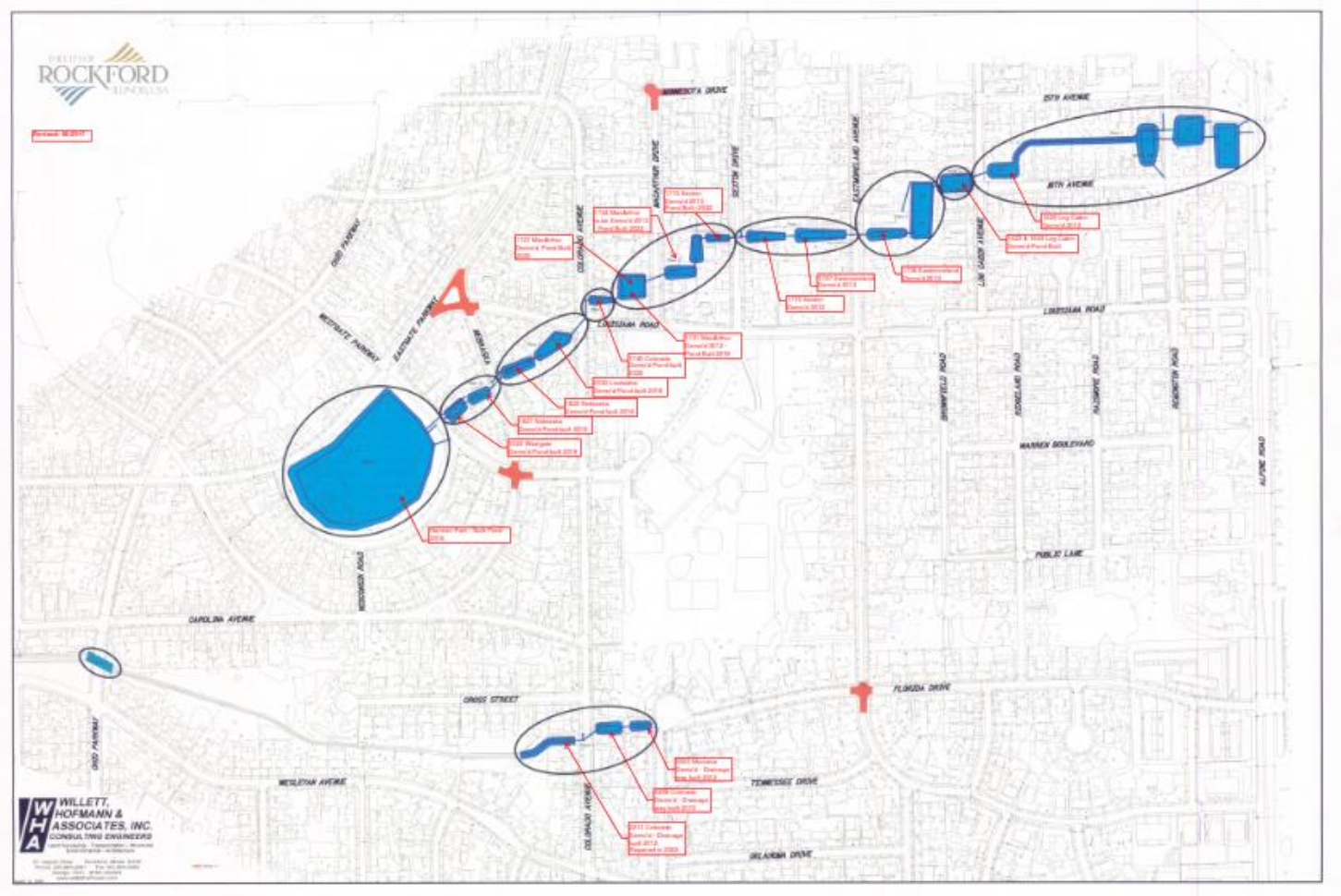
Significant damage from surface water occurred in the Rolling Green Subdivision. The Harmon Park Drainage Basin is an area of 680 acres with commercial and single-family land use (see Figure 4). The basin is not tributary to Keith Creek. The area is part of the upper portion of the Southeast Drainage Basin and does not have a major drainage way passing through it.

Flooding was caused by intense rain falling on the basin that exceeded the capacity of the local drainage system. The Harmon Park Basin is located in the heart of the severe weather experienced on September 4th. The measurement of rainfall obtained nearest the area indicated a total of 8.1 inches. As the Rolling Green name implies, the area has well defined topography and the lower lying areas become the overflow when the storm sewer capacity is exceeded.

There is a history of surface water problems in the area. The Harmon Park Basin has two distinct tributary areas. Residential neighborhoods within the north section were developed between 1925 and 1950 with varying degrees of urban improvements (curb & gutter, sidewalks, etc.). The south section of the basin developed primarily between 1950 and 1974. The storm sewer system evolved as the area developed with varying levels of service. One of the contributing factors to surface water problems is that the original subdivisions did not provide for positive drainage, a route that naturally overflows when the storm sewer capacity is exceeded. Most often this is the street system. When storm sewers are full, surplus water has to find its way through yards and between houses to reach the main drainage channel.

Since 2008 the City has been acquiring properties to re-create the natural drainage way through the Rolling Green and Harmon Park neighborhoods that flows from the intersection of Alpine Road and Newburg/Broadway towards Harmon Park at Eastgate Parkway. Removal of the homes within the natural water path and the construction of the in-series detention ponds and regional detention pond in Harmon Park would help alleviate flooding problems for these neighborhoods. By allowing a path for the flood waters through a series of ponds and releasing the waters to a downstream regional detention pond would reduce flood damage, improving health and safety in the area along with improving water quality. Constructing the regional detention facility is the next phase of a 10-year flood improvement project.

2008 – Demolition and construction of drainage way at 1740 Colorado Avenue, 1623 Log Cabin Avenue and 1649 Log Cabin Avenue.
2010 – Demolition of 3533 Louisiana Road, 1822 Nebraska Road, 1827 Nebraska Road and 3522 Westgate Parkway.
2011 – Demolition of 2208 Colorado Avenue, 2211 Colorado Avenue, 2003 Montana Avenue and 1727 MacArthur Drive.
2012 – Demolition of 1620 Log Cabin Avenue, 1716 Sexton Drive and 1731 MacArthur Drive. Construction of Harmon Park 4b, drainage ways at 2003 Montana Avenue, 2208 Colorado Avenue and 2211 Colorado Avenue.
2013 – Demolition of 1707 Eastmoreland Avenue and 1715 Sexton Drive.
2014 – Demolition of 1715 Sexton Drive.
2015 – Continued additional construction and repair of Harmon Park 4b, drainage ways at 2003 Montana Avenue, 2208 Colorado Avenue and 2211 Colorado Avenue, as part of the Buckbee Outfall and Harmon Park Repairs project.
2016 – Constructed regional detention basin at Harmon Park to address neighborhood flooding.
2016 – Constructed new/larger inlet and reconstructed curb line and driveway apron at Firestone along Alpine Road at upper end of watershed to reduce flooding of homes on Remington Road.
2018 – Constructed detention ponds at 1822 & 1827 Nebraska, 3522 Westgate, and 3533 Louisiana.
2022 – Phase 8 of project was completed which included new basins on Colorado, MacAurthur and Sexton. The drainageway at 2211 Colorado Ave. was also repaired.
2024 – Willett Hoffmann updated costs estimate of remaining phases.



Harmon Park Drainage Basin Exhibit.

All completed basins, from Harmon Park thru Sexton Drive are mowed at least monthly and inspected annually to ensure they are functioning properly.

Gregory Heights Drainage Improvements

Gregory Heights is a subdivision located on the south side of Rockford near the Newburg Road and Arnold Avenue intersection. This neighborhood has experienced chronic flooding problems on streets which are made impassable by vehicles. In 2015, the City of Rockford hired Artisan Consulting Engineers to study the area and determine possible solutions to the area.

After studying the existing conditions, including attending neighborhood meetings, Artisan determined the best option was to provide relief to the stormsewer system and to install a series of detention basins through the area to relieve street flooding. Exhibit A below is an overview of the entire project.

Phase one of the project was completed in 2021 and included installation of the detention basins D and E on the exhibit below which are at the northwest corner of Newburg Road and Geneva Avenue. Phase two of the project, installation of basins A-D were installed in 2022.

APPENDIX E

(PAST YEARS FLOOD, DRAINAGE AND STREAMBANK STABIIZATION PROJECTS)

FLOOD CONTROL, DRAINAGE & STREAMBANK STABILIZATION PROJECTS PAST YEARS		
Year	**Project Location**	**Description**
2014	Tallwood Ave.	Inserted HDPE liner to replace corroded corrugated metal pipe.
2014	Kennon Road	Flood mitigation: Reconstructed road, added storm sewer, and drywell to better control run-off.
2014	Harrison Ditch	Replaced failed concrete ditch
2014	Junction Road Ditch Repair	Stabilized failed drainage ditch
2014	1741 South Trainer Road	Flood mitigation: installed inlets and storm sewer at 1741 Trainer Road to better control significant rain events.
2014	Pierpont Ave. Box Culvert Cleaning	Cleaned sediment from box culvert to improve functionality of drainage system.
2014	Deer Path Shoulder	Shoulder Stabilization: Added rip rap to shoulder to better control erosion.
2014	Wesleyan Ditch	Temporary stabilization: Installed rip rap in areas where concrete ditch has failed.
2015	Buckbee Drainage Repairs	Stabilization of eroding concrete channel in several locations.
2015	Bridge over Kent Creek on Cedar Street	Stabilization of erosion occurring around the bridge.
2015	Montedera Drainage Improvement	Stabilization of eroding drainageway.
2015	Buckbee Creek Outfall	Stabilization where creek enters Rock River
2015	5th Street Wall Repair	Repair of collapsed creek wall
2015	Harmon Park 4b	Repair of eroding drainageway
2015	Wesleyan Ditch (several locations)	Temporary concrete channel stabilization
2015	Wesleyan Ditch, East of Ohio Parkway	Permanent concrete channel repairs
2016	Kent Creek South Diversion Channel Improvements	Re-grading of the diversion channel and tree removal.
2016	Wesleyan Ditch near 24th St.	Concrete channel repairs
2016	E. State St. & Fairview Ave.	Streambank stabilization
2016	Keith Creek at Schnucks Cleanout	Removal of sediment from creek channel
2016	New Towne Dr. Keith Creek Cleanout	Removal of sediment from creek channel
2016	South Alpine Road Bank Stabilization	Stabilization of South Branch of Keith Creek along S. Alpine Rd.
2017	Keith Creek (5th – 7th St.)	Removal of trees & sediment.
2017	New England & Mayflower	Re-grading of ditch
2017	Tatum Road Ditch Repair	Drainageway cleanout and stabilization
2017	Alpine & Sandy Hollow Ditch repair	Removal of sediment
2017	Charles Street Wall Repair	Temporary repair of failed wall along Keith Creek
2017	5500 Newburg Rd.	Drainageway cleanout and stabilization
2017	Schnucks Creek Stabilization	Stabilization of eroding streambank on Keith Creek
2017	Milford Road Culvert Cleanout	Removal of trees along drainageway & sediment at the culvert.
2017	Ed Vera Stormsewer Upgrade	Installation of larger stormsewer due to continuous flooding.
2017	Imperial Oaks cleanout	Removal of sediment from culvert along Spring Creek and streambank stabilization.

Year	Project Location	Description
2017	Sandy Hollow & Kishwaukee wall repair	Repair of wall along Buckbee Creek where it had washout out behind it.
2017	Alta Vista & Bradley Rd. Bank Stabilization	Sediment removal at culvert and streambank stabilization along Spring Creek.
2017	Horace over S. Kent Creek	Sediment removal & bank stabilization
2018	E. State St. to Morsay Dr.	Removal of sediment from the creek and bank stabilization
2018	Spring Brook Rd.	Bank stabilization along Spring Brook Rd.
2018	South of East State St.	Removal of sediment
2018	8th Avenue Bridge Erosion	Bank stabilization at 8th Ave. bridge
2018	Diversion Channel Repairs	Stabilization of diversion channel bottom
2018	Sandy Hollow & 20th St.	Repair of concrete channel wall
2018	Mulberry St. behind Library	Cleanout and repair of stormsewer
2018	18th Street Rip rap	Placement of rip rap in channel bottom to prevent scouring
2018	Pepper Dr. & Gambino Park outfall	Removal of sediment and repair of unseated outfall.
2018	Yale Drive Culvert Replacement	Replacement of failing road culvert and streambank stabilization.
2019	Keith Creek Bank Stabilization between 5th Street and Railroad Ave.	Wall removal and placement of pilings, rip rap and geogrids to stabilize the streambank.
2019	Linden Pointe Drainageway	Sediment removal and reshaping of drainageway
2019	Harmon Park	Trash rack cleanout
2019	N. Central & Liberty Dr.	Sediment cleanout and ditch re-grading
2019	Behind Don Carter Lanes	Re-grading of ditch
2020	25th Avenue Park Concrete channel Repair	Repaired portion of concrete channel that washed out. City of Rockford coordinated the repairs which were paid by Rockford Park District.
2020	23rd Avenue Washout repair	Repair of small washout that was going into the concrete channel.
2020	New Towne Dr. Detention Basin	Removed sediment from concrete channel
2020	Alpine Dam Rehabilitation Project	Phase I of project included paint removal joint repair and automating the gate mechanism with online access from City hall.
2021	Gregory Heights, Phase 1	Installation of a series of detention basins to address neighborhood flooding.
2021	Buckbee Channel @ 25th St. Park	Repair of washout
2021	Northwest Channel repairs	Repairs of concrete walls in several areas of channel.
2021	Alpine Dam Rehabilitation Project	Phase I of project included paint removal joint repair and automating the gate mechanism with online access from City hall. Phase 1 started in 2020 and continued in 2021. Phase 2 is awaiting IDNR approvals.
2022	Liberty Dr. & Beldon St.	Repair of wingwall at culvert
2022	Applewood Lane	Box Culvert Cleanout
2022	Cheroakwood Lane	Box Culvert Cleanout
2022	Arden Court	Trash Rack Cleanout of sticks and debris
2022	Parkview & Crabapple	Trash Rack Cleanout of sticks and debris

Year	Project Location	Description
2022	Holmes & Harrison	Trash Rack Cleanout of sticks and debris
2022	Rote & Eden	Trash Rack Cleanout of sticks and debris
2022	Sandy Hollow & Kishwaukee (Floatable Location)	Trash Rack Cleanout of sticks and debris
2022	Hinckley Springs, 22nd Ave.	Sediment removal from ditch
2022	Bradley Road Box Culvert	Box Culvert Cleanout
2022	Sandy Hollow & Kishwaukee (Floatable Location)	Trash Rack Cleanout of sticks and debris
2022	Lansdale Basin	Tree/Sediment removal from basin
2022	Welsh Road	Ditch Repair
2022	Harrison Ave & Express Lane	Emergency repair of eroding ditch to Rock River
2022	Parkview & Crabapple	Trash Rack Cleanout of sticks and debris
2022	Alpine Dam Trash Rack (Floatable Location)	Trash Rack Cleanout
2022	W. Riverside Dr. by Chatham Ct.	Removed Vegetation behind wingwall of culvert
2022	S. Alpine Rd. & Linden	Removed Trees & Excess Vegetation from around box culvert
2022	Parkview & Crabapple	Trash Rack Cleanout of sticks and debris
2022	Parkview & Crabapple	Trash Rack Cleanout of sticks and debris
2022	Rote Road	Drainageway Cleanout
2022	Walgreens on Charles	Sediment removal from creek
2022	Alpine Dam Trash Rack (Floatable Location)	Removal of Sticks & Debris from trash rack
2022	Sandy Hollow & Kishwaukee (Floatable Location)	Trash Rack Cleanout of sticks and debris
2022	Grassridge Rd.	Storm Sewer repair
2022	Lookout Drive	Basin Repair
2022	Schnucks on Charles	Bank Stabilization
2022	Saratoga Lane	Storm Sewer repair
2022	Jonathon Ave.	Repair Wingwall over drainageway
2022	Colorado Ave.	Drainageway Repair
2022	Alpine Dam Trash Rack (Floatable Location)	Sediment & Debris Removal
2022	Spring Brook Road	Box Culvert Cleanout
2022	Lindale & 20th St.	Drainageway cleanout
2022	Buckbee Channel Bank Stabilization	Stabilization of approximately 1,000’ of eroding streambank
2022	Channel Repair	Repair of concrete failure
2022	Northwest Channel repair	Repairs of concrete wall of channel.
2022	Rote & Bell School Roads (completed in 2023)	Removal of sediment and reshaping for better drainage
2022	Lindale & 20th St.	Sediment Removal & Stabilization for better drainage
2023	Harrison Ave Box Culvert	Sediment Removal
2023	Simpson Rd. Box Culvert	Box Culvert Repair
2023	Trainer Rd. over Madigan Creek	Remove sediment & repair undermined bank
2023	Gambino Park	Structure Repair
2023	15th St. over Keith Creek	Bank Stabilization
2023	18th St. Over Keith Creek	Backfill sinkhole and slope bank
2023	Alpine Dam Trash Rack	Sediment & Debris Removal
2023	El Rancho Box Culvert	Removed brush & Silt (Street)

Year	Project Location	Description
2023	Pepper Dr. Wellhouse Basin	Sediment Removal
2023	Arden Court Trash Rack	Silt Removal (Street)
2023	Parkview & Crabapple	Branches & Debris (Street)
2023	5732 Weymouth Trash Rack	Grass & Sticks (Street)
2023	Greenleaf & Forest View	Grass & Sticks (Street)
2023	Delcy & Brookview	Grass & Sticks (Street)
2023	1804 Kings Hwy.	Branches & Debris (Street)
2023	Charles St. Box Culvert (Schnucks)	Remove Brush (Street)
2023	Samuelson Rd. Ditch Clearing	Sediment Removal from ditch
2023	El Rancho Box Culvert	Branches & Debris (Street)
2023	Delcy & Brookview Trash Rack	Branches & Debris (Street)
2023	Parkview & Crabapple	Branches & Debris (Street)
2023	Spring Creek Rd. Box Culvert	Branches (Street)
2023	Sandy Hollow & Kishwaukee Trash Rack)	Logs, Debris, Trash (Street)
2023	1515 James Ave.	Sink Hole Repair
2023	El Ranch Lane & Spring Creek	Sediment removal from culvert
2023	Owl Train & Bell School Rd.	Sediment removal from culvert
2023	Trainer Rd. over Spring Creek	Sediment removal from culvert
2023	5520 Einor Ave.	Sediment Removal
2023	Spring Lake & Spring Brook Rd.	Sediment removal from culvert
2023	Gingeridge & Applewood	Construct berm to relieve drainage concern
2023	Horace Ave. over Kent Creek	Sediment removal from culvert
2023	Varying Locations along Spring Creek	Removal of down trees from major storm in April 2023.
2023	Newburg Road box culvert	Box Culvert Repair
2023	Parkview & Crabapple	Branches & Debris (Street)
2023	Sandy Hollow & Kishwaukee Trash Rack	Logs, Debris, Trash (Street)
2023	Brookview Rd. Box Culvert	Brush removal (Street)
2023	Overland & Chisolm Drainageway, (Rockford Public Schools funded, managed by City of Rockford)	Sediment & vegetation removal

DETENTION BASIN MAINTENANCE PROJECTS PAST YEARS			
Year	**Site Location**	**Cooperating Agency/Company**	**Project Type**
2014	Perryville Promenade & Spring Crossing Detention Basin	First Rockford Group	In-series, multi-stage detention facilities
2015	Logistics Detention Basin	City of Rockford	Installation of dry wells to aid drainage of pond and reseeding.
2016	Harmon Park Regional Detention Basin	City of Rockford	Installation of large detention basin at Harmon Park to address neighborhood flooding.
2016	Linden Pointe Basin Upgrade	City of Rockford	Detention basin improvements
2017	Elliott Golf Course Detention Facility	City of Rockford	Repairs to basin, woody growth removal, resetting pipe, repairing erosion.
2017	Mercy Way Detention Basins	City of Rockford/Javon Bea Hospital – Riverside Campus	Began construction of Mercy Way including 3 additional detention basins.
2018	Harmon Park Drainage Improvements	City of Rockford	Construction the next phase of detention basins to relieve neighborhood flooding.
2020	Saxon Way Basin	City of Rockford	Removed 21 ton of sediment
2020	Arden Court Basin	City of Rockford	Removed 100 ton of sediment from the basin and completed a study to determine the basins ability to handle large rain events.
2021	Harmon Park	City of Rockford	Remove sediment and debris from baskets and repair gully.
2021	Logistics Basin	City of Rockford	Repair of large gully
2021	Gregory Heights Ph. 1	City of Rockford	Construction of series of detention basins to relieve neighborhood flooding.
2022	Gregory Heights Phase 2	City of Rockford	Construction of series of detention basins to relieve neighborhood flooding.
2022	Harmon Park Phase 8	City of Rockford	Construction of series of detention basins to relieve neighborhood flooding.
2023	Pepper Dr. basin @ wellhouse	City of Rockford/ Rockford Park District	Sediment removal
2023	Gambino Park	City of Rockford	Structure repair

APPENDIX F
(CONSTRUCTION INSPECTION FREQUENCIES)

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
Proposed Improvements, Lots 43 & 44, Plat No. 4 of Sandy Hollow Industrial Park	ILR10ZDGW	Approved	Terminated	12/12/2024	11/2/2023	Final Stabilized	3(2)	2
Jefferson High School Solar Array	ILR10ZEXM	Approved	Active	11/15/2024	12/12/2024	Not Started	NA	NA
Thurgood Marshall Solar Array	ILR10ZEXL	Approved	Active	11/15/2024	12/12/2024	Not Started	NA	NA
RESA Solar Array	ILR10ZEXK	Approved	Active	11/15/2024	12/12/2024	Not Started	NA	NA
CCDD Closure Assistance	ILR10ZDJK	Approved	Terminated	11/7/2024	12/1/2023	Final Stabilized	3(2)	1
11th Street Reconstruction	ILR10ZEWG	Approved	Active	11/5/2024	12/3/2024	Not Started	NA	NA
Proposed Improvements for Mark's Tree Care	ILR10ZEUO	Approved	Active	10/30/2024	10/31/2024	Active	2(2)	0
Hard Rock Casino Rockford	ILR10ZC1N	Approved	Terminated	10/23/2024	9/4/2022	Final Stabilized	3(2)	2
Core Rockford 1, LLC	ILR10ZAFQ	Approved	Terminated	10/18/2024	5/5/2021	Final Stabilized	NA	NA
Runway 7/25 South Parallel Taxiway P (Phase 1)	ILR10ZCOF	Approved	Terminated	9/12/2024	4/15/2023	Final Stabilized	3(2)	0

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
North Springfield Solar	ILR10ZEPW	Approved	Active	9/11/2024	10/2/2024	Not City	NA	NA
Fairgrounds Valley - Demolition Package	ILR10ZEPM	Approved	Active	9/9/2024	10/9/2024	Not Started	NA	NA
Levings Park Stormwater Treatment Wetland	ILR10ZEOX	Approved	Active	9/3/2024	9/24/2024	Awaiting 70%	2(2)	1
Rock Cut Solar	ILR10ZELJ	Approved	Active	8/28/2024	8/28/2024	Active	2(2)	2
Rockford University Athletic Improvements	ILR10ZDL4	Approved	Terminated	8/27/2024	12/22/2023	Not Started	3(2)	2
Sandy Hollow Troy Lee Development	ILR10ZENW	Approved	Active	8/24/2024	11/18/2024	Active	3(2)	2
Slidematic Addition	ILR10ZENM	Approved	Active	8/22/2024	9/18/2024	Active	2(2)	0
Fairgrounds Valley - Demolition Package	ILR10ZEMP	Approved	Active	8/15/2024	9/14/2024	Not Started	0	1
Rock Cut Solar	ILR10ZELJ	Approved	Active	8/8/2024	8/28/2024	Active	2(2)	2
AA Construction Storage Facility	ILR10ZEJJ	Approved	Inactive	7/27/2024		Inactive	2(2)	3
RVC Downtown Rockford Campus	ILR10ZEIF	Approved	Active	7/19/2024	9/26/2024	Active	2(2)	0

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
Raising Cane's #1137 Rockford, IL	ILR10ZEIE	Approved	Active	7/19/2024	8/19/2024	Active	2(2)	0
Contract 64M40: US 20 in Rockford	ILR10ZCS4	Approved	Terminated	7/17/2024	5/6/2023	Final Stabilized	1(0)***	0
Summerdale Parking Lot	ILR10ZEGD	Approved	Active	7/8/2024	8/7/2024	Final Stabilized	3(3)	2
East High Track and Football Field Improvements	ILR10ZEGC	Approved	Active	7/8/2024	8/7/2024	Active	4(4)	2
Jefferson High School Field Improvements	ILR10ZEGB	Approved	Active	7/8/2024	8/7/2024	Active	2(2)	3
Rockford Dollar General	ILR10ZCDW	Approved	Terminated	7/8/2024	2/3/2023	Awaiting 70%	4(2)	3
Starbucks Rockford	ILR10ZEFI	Approved	Active	7/1/2024	7/31/2024	Active	2(2)	1
Operations Facility Development	ILR10ZCGO	Approved	Terminated	6/19/2024	2/24/2023	Final Stabilized	2(1)**	1
PCI PLANT 2 TRUCK PARKING LOT	ILR10ZEDV	Approved	Active	6/18/2024	7/18/2024	Not Started	NA	NA
Colman Yards - Building 1	ILR10ZE3V	Approved	Active	6/17/2024	5/16/2024	Active	2(2)	0
Athletic Fields	ILR10ZEDD	Payment Required	Inactive	6/14/2024		Not Started	0	1
QuikTrip Store No. 7206	ILR10ZC5Q	Approved	Terminated	6/11/2024	10/12/2022	Final Stabilized	2(1)**	4

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
Contract 64H08: US Business Route 20(West State Street) in Rockford.	ILR10ZARF	Approved	Terminated	6/7/2024	7/21/2021	Final Stabilized	NA	NA
Interstate Diversion Basin Trunk Upsizing FCIP # 150D	ILR10ZEAW	Approved	Active	5/30/2024	6/29/2024	Not Started	0	1
Logistics Parkway Phase II	ILR10ZBUO	Approved	Terminated	5/20/2024	7/13/2022	Final Stabilized	1(0)**	1
Contract 64G68: Perryville Rd over I-39/US Bypass 20	ILR10ZCDK	Approved	Terminated	5/16/2024	1/27/2023	Not City	NA	NA
Chase Bank - Rockford, IL	ILR10ZE7N	Approved	Active	5/7/2024	6/6/2024	Awaiting 70%	3(3)	4
Main Street Self-Storage Facility	ILR10ZE77	Payment Required	Inactive	5/3/2024		Not Started	NA	NA
Bend 2	ILR10ZE6F	Approved	Active	4/30/2024	5/30/2024	Active	2(2)	5
Charles Street Rehabilitation	ILR10ZBYX	Approved	Terminated	4/19/2024	8/18/2022	Final Stabilized	1(0)**	0
Bend 1 Solar	ILR10ZE4L	Approved	Active	4/18/2024	5/18/2024	Active	2(2)	5
Colman Yards - Building 1	ILR10ZE3V	Approved	Active	4/16/2024	5/16/2024	Active	2(2)	0

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
JX Trucking Expansion	ILR10ZE3B	Approved	Active	4/12/2024	5/12/2024	Awaiting 70%	2(2)	1
Clarence Hicks Memorial Sports Park Improvements	ILR10ZE18	Approved	Active	4/2/2024	5/2/2024	Active	2(2)	0
Rockford Toolcraft Building Expansion	ILR10ZE0P	Approved	Active	4/1/2024	5/1/2024	Active	2(2)	1
Contract 64R71: I-39 Harrison Ave	ILR10ZDZZ	Approved	Active	3/27/2024	4/26/2024	Not City	NA	NA
Dayton Freight - Rockford IL - Maintenance Building Site	ILR10ZDZY	Approved	Active	3/26/2024	4/25/2024	Active	3(2)	2
Winnebago RBG Facility	ILR10ZC3J	Approved	Active	3/5/2024	9/20/2022	Not City	NA	NA
Bell School Rd Roadway Reconstruction	ILR10ZDUY	Approved	Active	2/23/2024	3/24/2024	Final Stabilized	2(2)	3
QuikTrip Store No. 7313	ILR10ZDTX	Approved	Active	2/15/2024	3/16/2024	Active	3(3)	5
US Bus 20 (E State St.) Improvements	ILR10ZDT9	Approved	Active	2/13/2024	3/14/2024	Final Stabilized	2(2)	3
Madison Street Phase 2	ILR10ZDT8	Approved	Active	2/13/2024	5/23/2024	Not Started	NA	NA

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
2233 Charles Street Building Demolition & Parking Lot Removal	ILR10ZDSS	Approved	Active	2/7/2024	4/16/2024	Awaiting 70%	2(2)	1
Koukos Subdivision	ILR10ZDRT	Approved	Active	1/30/2024	2/29/2024	Active	4(2)	3
Rockford Plant 6 Solar	ILR10ZDRG	Approved	Terminated	1/26/2024	2/25/2024	Awaiting 70%	4(4)	8
Addition and Alterations for Rockford Mass Transit District	ILR10ZDPG	Approved	Active	1/16/2024	2/15/2024	Active	1(1)***	0
Division Street Demo	ILR10ZDO8	Approved	Active	1/4/2024	1/23/2024	Final Stabilized	1(0)*	5
ALDI - Rockford, IL	ILR10ZCU8	Approved	Terminated	1/3/2024	5/21/2023	Final Stabilized	3(1)	2
Whitman Street Reconstruction	ILR10ZDNV	Approved	Active	1/2/2024	2/7/2024	Active	3(2)	3
Alpine Dam Rehab. Project	ILR10ZCWN	Approved	Active	5/8/2023	9/26/2023	Awaiting 70%	3(2)	1
Pierpont Solar	ILR10ZE9J	Approved	Active	6/11/2024	6/20/2024	Awaiting 70%	2(2)	0
Belmontes Cold Storage	ILR10ZBOF	Approved	Active	4//21/22	5/21/2022	Awaiting 70%	3(2)	0
Woodmans Unattended Fuel Station & Car Wash	ILR10ZADC	Approved	Active	8/22/2023	9/25/2023	Awaiting 70%	3(3)	7

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
Bell School Road Multi Family	ILR10ZDMR	Approved	Active	12/13/2023	1/12/2024	Awaiting 70%	6(3)	3
Rockford Public Library	ILR10ZA72	Approved	Expired	1/20/2021	2/19/2021	Final Stabilized	3(1)***	
Brewhouse Parking Area	ILR10ZCQE	Approved	Active	3/27/2023	4/26/2023	Final Stabilized	2(1)***	1
Meiborg Trailer Parking Lot	ILR10ZAO3	Approved	Active	5/8/2021	6/27/2021	Final Stabilized	2(2)	6
Sinnissippi Park and Riverfront Imp.	ILR10ZBU3	Approved	Expired	6/8/2022	7/8/2022	Final Stabilized	1(0)***	2
Belle Tire	ILR10ZCPZ	Approved	Active	3/24/2023	4/23/2023	Final Stabilized	2(1)***	2
U-Stor It Self Storage, 3303 N. Main St.	ILR10ZC4W	Approved	Terminated	7/31/2023	10/22/2022	Final Stabilized	2(0)***	0
Lockwood Park Horse Arena	ILR10ZCRP	Approved	Active	4/4/2023	5/4/2023	Final Stabilized	3(2)	1
The Cottages at Peterson Meadows	ILR10ZBXH	Approved	Active	7/7/2022	8/6/2022	Final Stabilized	3(2)	4
Construct Runway 7/25 South Parallel Taxiway P (Phase 2)	ILR10ZD2Z	Approved	Active	6/26/2023	7/21/2023	Active	3(2)	0

Regulated Entity Name	Program ID	Action Status	Coverage Status	Certified Date	Effective Date	Construction Phase	# Full Inspections Total #/During Const. Season	# Drive Thru Inspections
Estes Terminal Remodel	ILR10ZCXZ	Approved	Active	5/19/2023	6/22/2023	Inactive	1(0)	2
Mason Avenue Reconstruction & Drainage Improvements	ILR10ZDM8	Approved	Active	12/5/2023	1/4/2024	Not Started	NA	NA
Guilford Crossing	ILR10 AA36/AE66	Approved	Expired	6/25/2018	7/18/2018	Inactive	1(0)	3
Dayton Freight - Rockford, IL Site Improvements	ILR10ZCUD	Approved	Active	4/22/2023	5/22/2023	Awaiting 70%	3(2)	2
Linden Road Industrial Building (PCI)	ILR10ZCD8	Approved	Active	12/20/2022	4/19/2023	Awaiting 70%	3(2)	4

* Short Duration Project
**Project started Early/ late in season
*** Project Stabilized Prior to Current Season

APPENDIX G

(CITY OF ROCKFORD STAFF TRAINING)

2024 City of Rockford Staff Training

Name of Course	Date(s)	Sponsor/Presenter	City Staff	Hours
Using & Reviewing New Elevation Certificate Webinar	1/9/2024	IDNR	Brad Holcomb, Jeremy Mitchell	1
QC Stormwater Conference	2/22/2024	Quad Cities Stormwater Committee	Jeremy Mitchell, Ryan Lundberg, Nicholas Rippentrop, Brent Blackburn	6
Winnebago County SWCD Soil Erosion & Sediment Control Workshop	3/7/2024	Winnebago County SWCD	Jeremy Mitchell, Samantha Futrell, Nicholas Rippentrop, Brent Blackburn, Marty Bloom, Jacob Henelly, Jordan Masemore, Alecia Stepler	4
Valuing Groundcover and Vegetation as a Tool from Start to Finish	8/14/2024	IECA - Webinar	Brad Holcomb	1
Permitting in the Floodplain	11/6/2024	IDOT	Brad Holcomb, Jeremy Mitchell	1
Low Impact Development, the Basics of Bioretention - Webinar	11/14/245	Stormwater One	Brad Holcomb	1
Collaborative Stormwater Management Solutions Webinar	11/14/2024	Stormwater One	Brad Holcomb	1
Green Infrastructure Solutions for wet Weather	12/3/2024	Stormwater One	Brad Holcomb	1
Understanding EPA's NPDES MS4 Permit Program	12/3/2024	Stormwater One	Brad Holcomb	1
Let's talk Floc, A Three Part Flocculent Series	12/3/24 & 12/5/24	IECA - Webinar	Brad Holcomb	3
Valuing Ground Cover and Vegetation as a tool from Start to Finish	12/5/2024	IECA - Webinar	Brad Holcomb	1
Building for the Future – Shifting to a Sustainable and Permanent Vegetated MSE System for Water, Wall, Slope and Erosion Challenges	12/6/2024	IECA - Webinar	Brad Holcomb	1