DOWNERS GROVE SANITARY DISTRICT
GENERAL MANAGER'S REPORT
January 14, 2022

December Board Meeting

Copies of documentation for the following agenda items are enclosed for the January 18, 2022 meeting:

1) Proposed Agenda
2) Minutes of the December 21, 2021 regular meeting
3) Minutes of the December 21, 2021 Executive Session *(Confidential under Separate Cover)*
4) Claim Ordinance 1909
5) Schedule of Regular Meetings for 2022
6) Operations Report – 2021 WWTC Annual Summary
7) Operations Report – 2021 Collection System Construction Summary
8) Operations Report – 2021Collection System Performance
9) Operations Report – 2022 Collection System Work Plan
10) NPDES Permit Renewal Presentation and Public Notice Draft Permit
11) Memo regarding Amendment to Agreement with DRSCW
12) Executive Session – 2022-23 Salary Schedule *(Confidential under Separate Cover)*

BOLI Meeting

There is a no BOLI meeting this month.

Operations Reports

Copies of the following are enclosed for December operations:

1) Progress Report on Administrative Services activities.
2) The WWTC Operations Report from Marc.
3) The WWTC/Lift Station Maintenance Report from Jeff.
4) Progress Report from Bob on Collection System Maintenance activities.
5) Progress Report from Keith on Collection System Construction activities.
6) Progress Report from Reese on Laboratory activities.
7) Engineering Report from Alex.

Infiltration/Inflow Removal Work

Inspection efforts on private property under the I/I program with the intention of conducting I/I removal is ongoing in the 1-K-028 (Cass and Burlington, WT) area. A map showing progress for this area is included here, as well as a status summary sheet.

Flow metering continues, including meters in the 1-M-050 (55th and Victor, DG) vicinity to evaluate post-rehabilitation and I/I reduction performance. Data collected during recent storms shows that the local system appears to be operating satisfactorily.

Safety Committee and Related Safety Matters

A Safety Committee meeting was held on December 16, 2021.

The Committee discussed CDC's guidance regarding 2-layer masks with respect to the gaiters that many employees prefer to wear at work. Committee members said that the advantage of the gaiter in our workplace is that it can be worn around the neck outside instead of taking it off, handling it with dirty hands, and having to set it down in a dirty work zone. In response to this, we have identified a 2-layer gaiter style which was ordered for employees who wanted them.

The committee discussed recent challenges with employee injuries due to low staffing at Advocate Occupational Health. Backup options are being investigated.

YakTrax non-slip boot covers were ordered for all employees who wanted them. This will help with traction on snow and ice at the WWTC.

Committee members have continued to implement hazard mitigations for open incident reports.

Financial

A copy of the Investment Schedule as of December 31, 2021 is enclosed.

The Treasurer's Report for December 2021 covering the first eight months of FY 21-22 is included herein, along with a summary cover memo.

Meetings

I attended the following meetings since the December 17, 2021 General Manager's report:

- December 21 attended CSWEA Local Arrangements Committee meeting
- December 29 attached Water Sector Cybersecurity Threat Briefing sponsored by WaterISAC and EPA
- January 5 attended IAWA Federal Infrastructure Bill Funding meeting
- January 7 attended CSWEA Executive Committee meeting
- January 13 attended IAWA Executive Committee meeting
- January 13 attended meeting hosted by the Midwest Cogeneration Association with CHP stakeholders to discuss forming a coalition for CEJA cleanup
- January 14 attended IAWA Technical Committee meeting

Miscellaneous

Copies of the following items are enclosed:

1) General Manager's Report to the Employees dated December 30 and January 14
2) December 20 e-mail and December 22 letter to IEPA re: Venard force-main break
3) December 24 e-mail from DRSCW with NPS Phosphorus Feasibility Analysis Report
4) December 28 and January 10 e-mails to employees re: COVID procedural changes
5) January 5 e-mail and January 7 letter to IEPA re: Venard force-main break
6) DuPage County LIHWAP flyer

7) COVID-19 Preparedness Plan: Beyond Restore Illinois, dated January 13, 2022, with revised Emergency COVID-19 Absence Policy included as Attachment A

cc: WDVB, AES, PWC, BOLI, MGP

DOWNERS GROVE SANITARY DISTRICT
BOARD OF TRUSTEES MEETING
JANUARY 18, 2022 – 7:00 PM
BOARD ROOM

PROPOSED AGENDA

I. APPROVAL OF MINUTES
   A. REGULAR MEETING – DECEMBER 21, 2021
   B. EXECUTIVE SESSION – DECEMBER 21, 2021

II. APPROVAL OF CLAIM ORDINANCE NO. 1909

III. PUBLIC COMMENT

IV. OLD BUSINESS
   A. APPROVAL OF SCHEDULE OF REGULAR MEETINGS FOR 2022

V. NEW BUSINESS
   A. OPERATIONS REPORTS
      1. 2021 WWTC OPERATIONS SUMMARY
      2. 2021 COLLECTION SYSTEM CONSTRUCTION SUMMARY
      3. 2021 COLLECTION SYSTEM PERFORMANCE
      4. 2022 COLLECTION SYSTEM WORK PLAN
   B. NPDES PERMIT RENEWAL
   C. AMENDMENT TO AGREEMENT WITH DUPAGE RIVER SALT CREEK WORKGROUP

VI. EXECUTIVE SESSION
   To discuss employee compensation per exception 2(c)1 of the Illinois Open Meetings Act.

PUBLIC COMMENT:

The District has an online form for the Public who cannot attend the meeting to submit public comment. District staff shall read aloud any received public comments during the Public Comment portion of the meeting. Public comments for Public not attending the meeting in person need to be submitted before 4:00 p.m. on January 18, 2022. The form can be found here: https://www.dgsd.org/government/public-comment/

December 21, 2021

MINUTES

The monthly meeting of the Downers Grove Sanitary District Board of Trustees was held on Tuesday, December 21, 2021, convening at 7:00 p.m. The meeting was held at the District's Administration Center, 2710 Curtiss Street, Downers Grove. Present were Trustee and Acting President Amy E. Sejnost, Trustee Paul W. Coultrap, General Manager Amy R. Underwood, Information Coordinator Alyssa J. Caballero, and Attorney Michael G. Philipp. Trustee Wally D. Van Buren was absent.

Minutes of Regular Meeting – November 16, 2021

A motion was made by Trustee Coultrap seconded by Trustee Sejnost approving the minutes of the regular meeting held on November 16, 2021 and authorizing the Acting President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Sejnost and Coultrap.)

1K-028 Phase 3 Change Order No. 1

General Manager Underwood presented a memo recommending to the Board of Trustees approval of a change order for the District's 1K-028 Basin Rehabilitation - Phase 3 Contract with Performance Construction & Engineering (PCE) for a net increase in contract cost of $39,389.90. Approval of Change Order No. 1 would bring the total contract amount to $738,102.90. A motion was made by Trustee Coultrap seconded by Trustee Sejnost approving the 1K-028 Basin Rehabilitation - Phase 3 Contract Change Order No. 1 for a net increase in the amount of $39,389.90. The motion carried. (Votes recorded: Ayes–Sejnost and Coultrap.)

Claim Ordinance No. 1908

A motion was made by Trustee Coultrap seconded by Trustee Sejnost adopting Claim Ordinance No. 1908 in the total amount of $850,611.82 as presented and authorizing the Acting President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Sejnost and Coultrap.)

Public Comment – None

Old Business

Trustee Sejnost inquired about the status of installing carbon monoxide detectors at the Administration Center.

New Business

Schedule of Regular Meetings for 2022

General Manager Underwood presented the proposed Schedule of Regular Meetings for Calendar Year 2022. Trustee Sejnost noted that she had a conflict with the proposed June date. A revised date of June 14 was selected. General Manager Underwood stated she would contact Trustee Van Buren to verify whether he had a conflict with the revised date. The finalized schedule will be provided to the local papers and posted on the District's website.

Employee Policy Manual Revision – Residency

General Manager Underwood presented proposed revisions the District's Employee Policy Manual to update the travel time requirement for the Administrative Supervisor and Laboratory Supervisor to no more than 60 minutes and allow the General Manager at his or her discretion to approve minor variances to the minimum travel time on a case-by-case basis. A motion was made by Trustee Coultrap seconded by Trustee Sejnost to approve the proposed revisions to the District's Employee Policy Manual. The motion carried. (Votes recorded: Ayes–Sejnost and Coultrap.)

Master Engineering Service Agreement

General Manager Underwood presented a Master Engineering Service agreement between the District and Baxter & Woodman, Inc. (B&W), the engineering firm the District has used for engineering services for over sixty years. A motion was made by Trustee Coultrap seconded by Trustee Sejnost to approve the Master Engineering Service agreement between the District and B&W. The motion carried. (Votes recorded: Ayes–Sejnost and Coultrap.)

Other New Business

Trustee Coultrap noted Sewer Construction Supervisor Keith Shaffner was appointed as the Assistant Clerk for the District. He also inquired about the status of the hiring process for the Administration Supervisor position.

Trustee Sejnost thanked Sewer Construction Supervisor Keith Shaffner for filling in as Assistant Clerk for the District. She congratulated Carly Shaw on becoming the District's Freedom of Information Act (FOIA) Officer after completing the online training. She expressed her appreciation to General Manager Underwood for her continued involvement in professional organizations that further the wastewater treatment industry. She noted the purchase of the LiteCom helmets and that she was happy to see reflective decals on District vehicles. Trustee Sejnost also noted her appreciation that the Administration Center HVAC upgrades were done in-house, as noted in Maintenance Supervisor Barta's monthly report. She inquired about the status of the form completion for dental amalgam rule, noted in Lab Supervisor Berry's monthly report. She thanked Staff Engineer Bielawa for the photo of the paving project at Northwest Lift Station and commended him for his involvement in professional organizations. Lastly, she inquired about the letter from the District supporting University of Illinois Chicago's Energy Resources Center's STEM Scholars program.

Executive Session – Current Litigation

A motion was made by Trustee Coultrap seconded by Trustee Sejnost to recess the regular meeting and convene an executive session at 7:46 p.m. under exception 2(c)1 of the Open Meetings Act to discuss current litigation. The motion carried. (Votes recorded: Ayes–Sejnost and Coultrap.)

A motion was made by Trustee Coultrap seconded by Trustee Sejnost to reconvene the regular meeting at 7:55 p.m. The motion carried. (Votes recorded: Ayes–Sejnost and Coultrap.)

A motion was made by Trustee Coultrap seconded by Trustee Sejnost for the District to not object to the Class Action Settlement with Kimberly-Clark. (Votes recorded: Ayes–Sejnost and Coultrap.)

A motion was made by Trustee Coultrap seconded by Trustee Sejnost to adjourn the regular meeting at 7:57 p.m. The motion carried.

Approved: January 18, 2022

_____
President

Attest: _____
Clerk

This attachment has been removed for its contents are currently confidential.

Downers Grove, Illinois

Date: January 18, 2022

Claim Ordinance No. 1909

An Ordinance Providing for the Payment of Certain Claims.

WHEREAS, it appears to the Board of Trustees of the Downers Grove Sanitary District that there are certain claims against said District which would be allowed and paid therefore,

BE IT ORDAINED, by the Board of Trustees of the Downers Grove Sanitary District

That the following claims be and they are hereby approved and ordered paid and that an order be drawn on the Treasurer of said District out of the funds shown below. Said claims, totaling **$543,540.90** being in words and figures as follows:

Payroll Ending Date: 12/11/21
Payroll Paid Date: 12/17/21
GL Date: 01/31/22

G/L NUMBER	COST DESCRIPTION	DEBIT	CREDIT
01-00.1001	CASH - PAYROLL ACCOUNT		53174.55-
01-00.2000	FEDERAL TAX WITHHELD		9924.04-
01-00.2001	STATE TAX WITHHELD		4080.88-
01-00.2002	SOCIAL SECURITY WITHHELD		6729.41-
01-00.2003	IMRF WITHHELD		3796.15-
01-00.2013	CREDIT UNION WITHHELD		2419.00-
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION		3392.68-
01-00.2017	VOLUNTARY GROUP LIFE		192.00-
01-00.2021	FLEXIBLE ACCOUNT WITHHELD - MEDICAL		218.50-
01-00.2024	FLEXIBLE ACCOUNT WITHHELD - PREM CONVERSION		1119.45-
01-00.2025	EMPLOYEE INS PREM CONTRIBUTION - POST TAX		396.95-
01-00.2026	DEFERRED COMPENSATION WITHHELD - IPPFA		285.64-
01-00.2027	DEFERRED COMPENSATION WITHHELD - IPPFA ROTH		240.00-
01-00.2028	DC PLAN LOAN REPAYMENT WITHHELD		234.80-
01-11.A003	GENERAL MANAGEMENT	1049.34	
01-11.A004	FINANCIAL RECORDS	7083.53	
01-11.A005	ADMINISTRATIVE RECORDS	921.23	
01-11.A007	CODE ENFORCEMENT	4843.00	
01-11.A008	SAFETY ACTIVITIES	1577.69	
01-11.A090	WORK FROM HOME REIMBURSEMENT ALLOWANCE	175.00	
01-12.A006	ENGINEERING	2119.50	
01-12.A011	MAINTENANCE - WWTC	12231.02	
01-12.A012	MAINTENANCE - VEHICLES	185.95	
01-12.A014	MAINTENANCE - ELECTRICAL	6974.09	
01-12.A021	WWTC - OPERATIONS	17882.21	
01-12.A022	WWTC - SLUDGE HANDLING	4770.89	
01-12.A023	WWTC - ENERGY RECOVERY	329.18	
01-12.A030	BUILDING AND GROUNDS	4050.79	
01-12.A085	INCENTIVE	200.00	
01-13.A041	LAB - WWTC	4736.95	
01-13.A043	LAB - SURCHARGE PROGRAM	676.17	
01-13.A048	LAB - ENERGY RECOVERY	247.46	
01-14.A006	ENGINEERING	56.52	
01-14.A051	SEWER MAINTENANCE	6574.89	
01-14.A054	SEWER MAINTENANCE - BACKUPS AND HIGH FLOWS	1065.66	
01-14.A062	INSPECTION - CONSTRUCTION OF DGSD PROJECTS	3376.05	
01-14.A063	INSPECTION - PERMIT INSPECTIONS	352.94	
01-14.A064	INSPECTION - MISCELLANEOUS	590.77	
01-14.A065	INSPECTION - CONSTR BY VILLAGES, UTILITIES	1084.59	
01-14.A066	INSPECTION - CODE ENFORCEMENT	2734.47	
01-14.A090	WORK FROM HOME REIMBURSEMENT ALLOWANCE	12.50	
01-15.A006	ENGINEERING	84.78	
01-15.A080	LIFT STATION MAINTENANCE	216.88	
		86204.05	86204.05-

Payroll Ending Date: 12/15/21
Payroll Paid Date: 12/17/21
GL Date: 01/31/22

G/L NUMBER	COST DESCRIPTION	DEBIT	CREDIT
01-00.1001	CASH - PAYROLL ACCOUNT		19293.30-
01-00.2000	FEDERAL TAX WITHHELD		3384.45-
01-00.2001	STATE TAX WITHHELD		1347.88-
01-00.2002	SOCIAL SECURITY WITHHELD		1792.20-
01-00.2003	IMRF WITHHELD		975.68-
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION		620.72-
01-00.2021	FLEXIBLE ACCOUNT WITHHELD - MEDICAL		64.50-
01-00.2024	FLEXIBLE ACCOUNT WITHHELD - PREM CONVERSION		332.69-
01-00.2025	EMPLOYEE INS PREM CONTRIBUTION - POST TAX		144.90-
01-00.2026	DEFERRED COMPENSATION WITHHELD - IPPFA		450.57-
01-00.2028	DC PLAN LOAN REPAYMENT WITHHELD		77.06-
01-11.A003	GENERAL MANAGEMENT	5977.14	
01-11.A004	FINANCIAL RECORDS	321.95	
01-11.A005	ADMINISTRATIVE RECORDS	35.52	
01-11.A007	CODE ENFORCEMENT	8426.46	
01-12.A009	OPERATIONS MANAGEMENT	4253.54	
01-12.A011	MAINTENANCE - WWTC	4536.33	
01-12.A014	MAINTENANCE - ELECTRICAL	222.81	
01-12.A021	WWTC - OPERATIONS	245.24	
01-12.A023	WWTC - ENERGY RECOVERY	108.07	
01-12.A030	BUILDING AND GROUNDS	111.40	
01-13.A009	OPERATIONS MANAGEMENT	2217.92	
01-13.A041	LAB - WWTC	44.96	
01-13.A042	LAB - PRETREATMENT	493.09	
01-13.A043	LAB - SURCHARGE PROGRAM	1433.82	
01-15.A030	BUILDING AND GROUNDS	55.70	
		28483.95	28483.95-

Payroll Ending Date: 12/25/21
Payroll Paid Date: 12/30/21
GL Date: 01/31/21

G/L NUMBER	COST DESCRIPTION	DEBIT	CREDIT
01-00.1001	CASH - PAYROLL ACCOUNT		53775.28-
01-00.2000	FEDERAL TAX WITHHELD		9254.27-
01-00.2001	STATE TAX WITHHELD		3888.53-
01-00.2002	SOCIAL SECURITY WITHHELD		6430.62-
01-00.2003	IMRF WITHHELD		3765.35-
01-00.2013	CREDIT UNION WITHHELD		2419.00-
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION		3342.16-
01-00.2017	VOLUNTARY GROUP LIFE		16.00-
01-00.2021	FLEXIBLE ACCOUNT WITHHELD - MEDICAL		218.50-
01-00.2024	FLEXIBLE ACCOUNT WITHHELD - PREM CONVERSION		1226.13-
01-00.2025	EMPLOYEE INS PREM CONTRIBUTION - POST TAX		396.95-
01-00.2026	DEFERRED COMPENSATION WITHHELD - IPPFA		297.76-
01-00.2027	DEFERRED COMPENSATION WITHHELD - IPPFA ROTH		240.00-
01-00.2028	DC PLAN LOAN REPAYMENT WITHHELD		234.80-
01-11.A003	GENERAL MANAGEMENT	840.40	
01-11.A004	FINANCIAL RECORDS	7037.58	
01-11.A005	ADMINISTRATIVE RECORDS	773.30	
01-11.A006	ENGINEERING	91.85	
01-11.A007	CODE ENFORCEMENT	5475.16	
01-11.A008	SAFETY ACTIVITIES	918.75	
01-11.A090	WORK FROM HOME REIMBURSEMENT ALLOWANCE	175.00	
01-12.A006	ENGINEERING	1992.33	
01-12.A011	MAINTENANCE - WWTC	12564.20	
01-12.A014	MAINTENANCE - ELECTRICAL	7324.64	
01-12.A021	WWTC - OPERATIONS	16677.25	
01-12.A022	WWTC - SLUDGE HANDLING	5603.23	
01-12.A023	WWTC - ENERGY RECOVERY	179.74	
01-12.A030	BUILDING AND GROUNDS	4144.79	
01-13.A041	LAB - WWTC	5549.92	
01-13.A043	LAB - SURCHARGE PROGRAM	125.80	
01-13.A048	LAB - ENERGY RECOVERY	110.08	
01-14.A051	SEWER MAINTENANCE	7542.52	
01-14.A054	SEWER MAINTENANCE - BACKUPS AND HIGH FLOWS	369.57	
01-14.A062	INSPECTION - CONSTRUCTION OF DGSD PROJECTS	2931.86	
01-14.A063	INSPECTION - PERMIT INSPECTIONS	256.50	
01-14.A064	INSPECTION - MISCELLANEOUS	1737.05	
01-14.A065	INSPECTION - CONSTR BY VILLAGES, UTILITIES	246.90	
01-14.A066	INSPECTION - CODE ENFORCEMENT	2328.42	
01-15.A006	ENGINEERING	176.63	
01-15.A080	LIFT STATION MAINTENANCE	331.88	
		85505.35	85505.35-

Payroll Ending Date: 12/31/21
Payroll Paid Date: 01/04/22
GL Date: 01/31/22

G/L NUMBER	COST DESCRIPTION	DEBIT	CREDIT
01-00.1001	CASH - PAYROLL ACCOUNT		18239.30-
01-00.2000	FEDERAL TAX WITHHELD		3133.37-
01-00.2001	STATE TAX WITHHELD		1303.23-
01-00.2002	SOCIAL SECURITY WITHHELD		2152.28-
01-00.2003	IMRF WITHHELD		1266.05-
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION		1267.16-
01-00.2017	VOLUNTARY GROUP LIFE		64.00-
01-00.2021	FLEXIBLE ACCOUNT WITHHELD - MEDICAL		64.50-
01-00.2024	FLEXIBLE ACCOUNT WITHHELD - PREM CONVERSION		332.69-
01-00.2025	EMPLOYEE INS PREM CONTRIBUTION - POST TAX		144.90-
01-00.2026	DEFERRED COMPENSATION WITHHELD - IPPFA		439.41-
01-00.2028	DC PLAN LOAN REPAYMENT WITHHELD		77.06-
01-11.A003	GENERAL MANAGEMENT	5765.52	
01-11.A004	FINANCIAL RECORDS	409.61	
01-11.A005	ADMINISTRATIVE RECORDS	68.02	
01-11.A007	CODE ENFORCEMENT	8426.46	
01-12.A009	OPERATIONS MANAGEMENT	4482.65	
01-12.A011	MAINTENANCE - WWTC	4455.43	
01-12.A014	MAINTENANCE - ELECTRICAL	128.46	
01-12.A021	WWTC - OPERATIONS	45.60	
01-12.A030	BUILDING AND GROUNDS	154.03	
01-13.A009	OPERATIONS MANAGEMENT	2743.41	
01-13.A041	LAB - WWTC	578.65	
01-13.A042	LAB - PRETREATMENT	214.15	
01-13.A043	LAB - SURCHARGE PROGRAM	310.84	
01-13.A048	LAB - ENERGY RECOVERY	342.74	
01-14.A054	SEWER MAINTENANCE - BACKUPS AND HIGH FLOWS	68.02	
01-15.A006	ENGINEERING	34.01	
01-15.A009	OPERATIONS MANAGEMENT	102.88	
01-15.A030	BUILDING AND GROUNDS	102.88	
01-15.A080	LIFT STATION MAINTENANCE	50.59	
		28483.95	28483.95-

Downers Grove Sanitary District

01 GENERAL FUND STANDARD CHECK REGISTER FOR 01/18/22

Date: 01/13/22
Time: 1:38pm

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
AT & T MOBILITY	A000085	01/03/22	831873915	01-15.B112	LS Cell Dialer	59.58	59.58	063333
ACI Payments Inc.	A000096	12/22/21	1000061649	01-11.B110	OLR Fees	33.10	33.10	103698
ALLAN J COLEMAN	A000245	12/07/21	0256864	01-14.B116	SS Inspection Supplies	124.57	124.57	063334
SYNCHB/AMAZON	A000295	12/28/21	433395877386	01-13.B117	DRB Jacket	169.99		
		12/02/21	433679474696	01-14.B117	OA Outerwear	74.49		
		12/17/21	438374583438	01-14.B116	Returned Surface Keyboard	149.99-		
		01/11/22	445553584436	01-13.B117	DRB Returned Outerwear	169.99-		
		11/19/21	448989458569	01-11.B115	SS Surface Pro Keyboard	149.99		
		12/18/21	457476998434	01-14.B116	Charging Cord	25.98		
		01/05/22	463939774785	01-13.B117	DRB Outerwear	161.49		
		01/03/22	467999753783	01-14.B113	SS Face Masks	39.99		
		01/06/22	478335693835	01-12.B805	Raw Sew Bldg Dehumidifier	666.66		
		01/06/22	498983358494	01-11.B113	Face Masks	101.47		
		12/28/21	534493666553	01-11.B118	Admin Carbon Monoxide Det	222.98		
		12/14/21	538943756489	01-11.B113	Air Purifier Filters	84.80		
		12/14/21	538943756489	01-12.B113	Air Purifier Filters	84.80		
		01/02/22	633945995837	01-12.B117	AC Outerwear	119.97		
		12/26/21	738346438369	01-12.B512	Flashlight For Truck 304	29.99		
		12/16/21	755799784499	01-12.B116	CP Phone Case	22.80		
		01/09/22	788784799934	01-12.B116	Ops Supplies	65.72		
		12/26/21	977446643474	01-12.B117	AC Outerwear	29.97		
		12/17/21	984738755399	01-12.B511	Ops Garden Hose	47.20		
		01/06/22	994434899577	01-11.B113	Face Masks	47.94	1826.25	063335
AUTOZONE - AZ COMMERCIAL	A000600	12/21/21	2576976814	01-14.C225	Auto Parts	7.09		
		01/05/22	2576986321	01-12.C225	Battery 2012 Ford F350	167.39		
		01/05/22	2576986323	01-12.C225	Battery Core Credit	22.00-		
		01/07/22	2576987317	01-14.C225	Inspect Truck Oil Chng	23.58		
		01/07/22	2576987535	01-14.B116	De-Icer Inspect Truck	11.98	188.04	063336
BAXTER & WOODMAN, INC.	B000120	12/17/21	0229865	01-14.B902	Outfall Sewer Sag Repair	127.50		
		12/17/21	0229869	01-11.B124	Misc Engineering Services	2223.81		
		12/17/21	0229874	01-14.B901	Curtiss St CIPP Lining	3478.75	5830.06	103699
VEERANOND BENJAWAN	B000135	12/27/21	Reimburse	01-14.B128	OH Sewer Reimburse	2800.00	2800.00	063368
BRITTON ELECTRONICS &	B000340	12/29/21	2219064	01-15.B521	Centex Wet Well Level	908.39	908.39	103700
BUTTREY RENTAL SERVICE, INC.	B000500	12/21/21	309163	01-12.B513	Temp Heat Belt Press	132.00	132.00	063337
CASSIDY TIRE & SERVICE	C000090	11/30/21	919011333	01-12.B501	Loader Tire Repair	429.75	429.75	063338
CINTAS #344	C000300	12/07/21	4103933906	01-12.B117	WWTC Uniform Rentals	77.20		
		12/07/21	4103933906	01-14.B117	SS Uniform Rentals	13.09		
		12/21/21	4105363458	01-12.B117	WWTC Uniform Rentals	77.20		
		12/21/21	4105363458	01-14.B117	SS Uniform Rentals	13.09		
		12/28/21	4106002306	01-12.B117	WWTC Uniform Rentals	77.20		
		12/28/21	4106002306	01-14.B117	SS Uniform Rentals	13.09		
		01/04/22	4106644122	01-12.B117	WWTC Uniform Rentals	77.20		
		01/04/22	4106644122	01-14.B117	SS Uniform Rentals	13.09	361.16	063339
COMCAST	C000373	01/03/22	1200550568	01-11.B112	Back Up Internet Service	114.90	114.90	063340
Comcast	C000375	01/01/22	137974072	01-11.B112	Fiber Internet Service	830.00	830.00	063341
COMED	C000380	12/13/21	0055025057	01-15.B100	College LS Elec	206.67		

VENDOR NAME	VENDOR NUMBER	INVOICE DATE	INVOICE NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
		12/13/21	0068029014	01-15.B100	Centex LS Elec	64.67		
		12/13/21	0120089072	01-15.B100	Wroble LS Elec	407.17		
		12/13/21	0458029046	01-15.B100	Liberty Park LS Elec	242.66		
		12/20/21	0562080004	01-15.B100	Venard LS Elec	339.98		
		12/13/21	1095091170	01-15.B100	Northwest LS Elec	638.12		
		12/13/21	1810068039	01-15.B100	Earlston LS Elec	160.44		
		12/13/21	3240038012	01-15.B100	Butterfield LS Elec	134.27		
		12/13/21	4657083017	01-15.B100	Hobson LS Elec	936.94		
		12/22/21	6770572011	01-00.2005	BSSRAP Yard Elec	102.87		
		12/22/21	6770572011	01-12.B100	Walnut House Elec	77.66		
		12/22/21	8762083052	01-12.B100	Big Top Elec	150.87	3462.32	063342
CONCENTRIC INTEGRATION, LLC	C000410	12/17/21	0229868	01-12.B513	WWTC PLC Upgrades	65.00		
		12/17/21	0229870	01-11.B115	Admin Support Services	1059.96		
		12/17/21	0229870	01-12.B513	WWTC Support Services	2152.04		
		12/17/21	0229872	01-11.B115	Admin Support Services	745.75		
		12/17/21	0229872	01-12.B513	WWTC Support Services	1793.13		
		12/17/21	0229872	01-15.B520	LS Support Services	4754.76	10570.64	103701
CORE & MAIN LP	C000485	12/29/21	Q149065	01-15.B527	East FM Repair Parts	279.79	279.79	063343
COVERALL NORTH AMERICA, INC	C000557	01/01/22	1010690007	01-12.B812	MSB Cleaning Services	304.00		
		01/01/22	1010690007	01-13.B116	Lab Cleaning Services	157.00		
		01/01/22	1010690009	01-11.B118	Admin Cleaning Services	429.00	890.00	103702
CURTIS MARTIN GROUP, INC.	C000660	12/31/21	8245	01-11.B115	City Ins Meet/Server Upgr	262.50	262.50	103703
VILLAGE OF DOWNERS GROVE	D000480	12/15/21	173459	01-11.C222	Admin Vehicle Fuel	38.55		
		12/15/21	173459	01-12.C222	WWTC Vehicle Fuel	1644.39		
		12/15/21	173459	01-13.C222	Lab Vehicle Fuel	51.92		
		12/15/21	173459	01-14.C222	SS Vehicle Fuel	1017.73		
		12/30/21	C2027270001	01-12.B102	WWTC Water Use	1084.63		
		12/30/21	C2027271001	01-11.B102	Admin Water Use	90.22	3927.44	063344
DUPAGE COUNTY RECORDER	D000620	12/07/21	40377775	01-11.B121	Lien Releases	22.00		
		12/20/21	40381934	01-11.B124	Sewer Construction Docs	627.00		
		12/20/21	40381934	01-14.B901	I/I Docs	57.00		
		12/20/21	40381934	01-14.B910	BSSRAP Docs	2451.00		
		12/20/21	40382077	01-11.B124	Sewer Construction Docs	285.00		
		12/20/21	40382077	01-14.B128	O/H Sewer Docs	57.00		
		12/20/21	40382077	01-14.B910	BSSRAP Docs	570.00	4069.00	063345
EXODUS TECHNOLOGY SERVICE	E000480	01/03/22	22-103	01-11.B115	Tech Support Servicers	1827.50	1827.50	063346
EYE MED VISION CARE	E000600	01/01/22	165092174	01-17.E455	Vision Insurance	491.90	491.90	063347
FIRST ADVANTAGE	F000130	12/31/21	2501612112	01-12.B117	Drug Screening	68.06	68.06	103704
FIRST ENVIRONMENTAL LAB	F000140	12/21/21	165468	01-13.B123	FOG Samples	277.20	277.20	103705
FOSTERS TRUCK REPAIR	F000270	11/03/21	39247	01-12.C225	Safety Lane Check	101.00		
		11/03/21	39247	01-14.C225	Safety Lane Check	81.00	182.00	063348
FULLIFE LLC	F000440	01/10/22	66457	01-11.B117	AMB Outerwear	59.00		
		01/10/22	66457	01-12.B117	EB/SA/JM Outerwear	113.58		
		01/10/22	66457	01-14.B117	DC/AL Outerwear	92.00	264.58	063349
GSM ENGINEERED FABRICS, LLC	G000080	12/22/21	1358	01-12.B509	Belt Filter Press Belts	1627.90	1627.90	103706
W. W. GRAINGER, INC.	G000520	12/23/21	9159668905	01-12.B512	See Sheet	6.94		

VENDOR NAME	VENDOR NUMBER	INVOICE DATE	INVOICE NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
		12/27/21	9161053864	01-13.B114	See Sheet	65.30		
		12/27/21	9161053864	01-13.B116	See Sheet	140.44		
		12/30/21	9164090822	01-12.B812	See Sheet	141.62		
		12/30/21	9164555931	01-13.B116	See Sheet	244.60		
		01/06/22	9169269488	01-11.B113	See Sheet	4.00		
		01/06/22	9169279529	01-11.B113	See Sheet	5.82		
		01/06/22	9169279537	01-12.B510	See Sheet	335.10		
		01/06/22	9170025655	01-12.B113	See Sheet	231.80		
		01/07/22	9170991146	01-12.B513	See Sheet	230.64	1406.26	103707
HML, INC.	H000035	12/10/21	89510	01-13.B123	Pathogen Testing - Nov	1000.00	1000.00	063350
HACH COMPANY	H000040	12/24/21	12808989	01-13.B114	Lab Chemicals	260.00		
		12/27/21	12811378	01-13.B114	Lab Chemicals	238.00		
		12/30/21	12817211	01-13.B114	Lab Chemicals	199.50	697.50	103708
HOME DEPOT	H000400	01/07/22	0041022	01-11.B118	See Sheet	13.75		
		01/06/22	1014726	01-12.B116	See Sheet	75.96		
		12/17/21	1523362	01-14.B116	See Sheet	75.12		
		01/05/22	2014682	01-12.B116	See Sheet	94.23		
		12/16/21	2060826	01-14.B116	See Sheet	19.96		
		12/15/21	3022419	01-12.B116	See Sheet	39.86		
		01/03/22	4040794	01-12.B113	See Sheet	21.97		
		01/03/22	4040794	01-12.B117	See Sheet	29.94		
		10/04/21	5360138	01-12.B812	See Sheet	45.74		
		01/01/22	6061977	01-14.B113	See Sheet	137.62		
		01/11/22	6062800	01-14.B116	See Sheet	213.66		
		01/11/22	6072614	01-14.B116	See Sheet	225.53		
		01/11/22	6074719	01-14.B116	See Sheet	273.01		
		01/01/22	6085232	01-14.B113	See Sheet	43.94		
		01/01/22	6160541	01-14.B113	See Sheet	69.66-		
		01/01/22	6160543	01-14.B113	See Sheet	85.88		
		12/21/21	7023060	01-11.B116	See Sheet	63.97		
		01/10/22	7161219	01-12.B512	See Sheet	73.40		
		01/01/22	8020379	01-14.B113	See Sheet	69.66	1533.54	063351
IMPACT NETWORKING INC.	I000400	12/20/21	2373312	01-11.B115	Copies	67.33	67.33	103709
INFOSEND, INC.	I000415	12/31/21	204483	01-11.B121	Customer Bill Mailings	4274.06	4274.06	103710
JC CROSS COMPANY	J000012	12/20/21	64615	01-12.B510	Dig 4 Pearth Comp Oil	292.83	292.83	063352
KANSAS CITY LIFE INSURANCE CO	K000045	01/06/22	038399	01-17.E455	Life Insurance	386.98	386.98	103711
LAI, LTD	L000012	12/18/21	21-18826	01-12.B509	Sldg Beds 27&28 Valve	840.00	840.00	103712
LOU'S GLOVES	L000300	12/27/21	047067	01-13.B116	Gloves	1254.00	1254.00	103713
MAGNETROL INTERNATIONAL INC.	M000101	12/13/21	0907269	01-12.B510	Dig 4 Cover Level	1276.10	1276.10	063369
MARSHALL-BOND PUMPS, INC	M000205	12/10/21	40072.0	01-12.B506	Prim ODS Pump Valve	435.43		
		12/16/21	40081.0	01-12.B506	Air MAC Valve	144.56	579.99	103714
MCMASTER-CARR SUPPLY COMPANY	M000360	12/17/21	70117850	01-12.B513	Belt Prs Bldg Gas Fd Prt	33.86		
		01/03/22	70610613	01-12.B512	Portable Welder Part	79.03		
		01/04/22	70671775	01-12.B509	Belt Prs Polymer Fd Parts	72.78		
		01/12/22	71085443	01-12.B512	Return Part	79.03-		
		01/12/22	71156669	01-12.B501	Sludge Auger Repair	68.91	175.55	103715

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
BRIAN MENG	M000440	01/11/22	Reimburse	01-12.B117	Boot Purchase	329.16	329.16	103716
MOTION INDUSTRIES, INC.	M000750	12/16/21	IL10-725326	01-12.B507	Sec 7 Gear Reducer Parts	1425.15		
		12/17/21	IL10-725520	01-12.B506	Prim Clar 3&4 Parts	1098.89	2524.04	103717
MUNTERS CORPORATION	M000840	12/15/21	261383	01-12.B811	Wheel Drive/Timing Belt	333.49	333.49	063353
NCPERS GROUP LIFE INSURANCE	N000010	12/10/21	3266012022	01-17.E455	Vol Life Ins Dec & Ja	544.00	544.00	103718
NAPA AUTO PARTS	N000040	01/11/22	4343-759797	01-12.B501	Auger Parts	62.64		
		01/11/22	4343-759901	01-12.B509	Belt Press Hydraulic Filt	11.28	73.92	063354
NEUCO, INC.	N000260	12/14/21	5516681	01-12.B510	Heat Exchg Water Bath	188.85	188.85	103719
NICOR GAS	N000330	12/14/21	15876210004	01-12.B101	Plant 1 Gas	490.95		
		12/14/21	44976210003	01-12.B101	Chem Feed Gas	381.24		
		12/15/21	51006900008	01-12.B101	Plant 2 Gas	289.34		
		12/14/21	54976210002	01-11.B101	Admin Gas	305.26		
		12/14/21	87801027812	01-12.B101	Walnut House Gas	256.99	1723.78	063355
NISSEN ENERGY INC	N000350	12/16/21	250	01-12.B513	CHP 1&2 Supplies	3905.00		
		12/31/21	251	01-12.B513	CHP Repair	400.00		
		12/31/21	253	01-12.B513	CHP 1 Repair	538.50	4843.50	103720
ATLAS FORMS & GRAPHICS	N000700	01/07/22	157736	01-11.B120	Grease Haul Forms	385.25	385.25	063356
PACE ANALYTICAL	P000010	12/27/21	2140110897	01-13.B123	NPDES December	115.00	115.00	103721
PETTY CASH	P000350	01/13/22	Cash Box	01-11.B113	Face Masks & Sanitizer	29.38		
		01/13/22	Cash Box	01-11.B119	Postage Due	3.89		
		01/13/22	Cash Box	01-12.B116	MSB Supplies	21.45		
		01/13/22	Cash Box	01-12.B117	MR Zipper Rep/MAR CDL	35.00	89.72	063357
POLYDYNE INC.	P000395	01/03/22	1604648	01-12.B402	Belt Press Polymer	2515.14	2515.14	103722
PORTABLE JOHN, INC	P000410	01/06/22	260572	01-12.B812	Port A Potty WWTC	187.07	187.07	103723
PORTER PIPE AND SUPPLY CO.	P000420	12/21/21	12330394-00	01-12.B513	Temp Gas Line Blt Prs Bld	581.01	581.01	103724
PRINCIPAL LIFE INSURANCE CO	P000650	12/18/21	1093099	01-17.E455	Dental Insurance	2709.29	2709.29	103725
RED WING SHOE STORE	R000180	12/22/21	45-1-110812	01-12.B117	JPB Boots	220.99		
		12/29/21	45-1-111013	01-13.B117	DRB Boots	233.74	454.73	103726
Republic Services #551	R000264	12/15/21	551015312421	01-12.B102	Grit Screen Dumpster	802.37		
		12/31/21	551015330077	01-12.B102	Grit Screen Dumpster	881.39	1683.76	063358
SAFETY-KLEEN SYSTEMS, INC.	S000050	12/20/21	87735228	01-12.B116	MSB Supplies	322.17	322.17	103727
SEAWAY SUPPLY CO.	S000200	12/14/21	176901	01-12.B512	Maint Repair Supplies	41.79		
		12/21/21	177295	01-12.B113	Gloves	39.00		
		01/04/22	177698	01-12.B116	MSB Supplies	285.16	365.95	103728
SELECTIVE INSURANCE COMPANY	S000210	12/23/21	417-147-515	01-17.E452	Auto Policy-2 Trucks Add	706.00	706.00	063359
SITEONE LANDSCAPE SUPPLY	S000405	01/10/22	115609923-01	01-11.B118	Rock Salt Admin	139.65		
		01/10/22	115609923-01	01-12.B812	Rock Salt WWTC	139.65	279.30	063360
SOLENIS LLC	S000450	01/05/22	131923744	01-12.B402	WAS Thickener Polymer	2928.24	2928.24	103729
SOUND INCORPORATED	S000480	12/23/21	70972	01-11.B115	Adm Parking Lot Camera	1158.00	1158.00	103730
STAPLES INC.	S000640	12/10/21	7345687508	01-11.B116	W-2 Forms	65.97	65.97	103731
STEPHENS PLUMBING AND	S000680	12/13/21	241647	01-14.B910	Shear Repair	282.30		
		12/27/21	242034	01-14.B910	Shear Repair	383.85	666.15	063361
STEVENSON CRANE SERVICE, INC.	S000720	12/20/21	234934	01-12.B507	Sec 7 Gear Reducer Rep	520.00		
		12/20/21	234934	01-12.B510	Dig 4 Mix Sys Comp Repair	520.00	1040.00	103732
SUBURBAN DOOR CHECK & LOCK	S000850	12/14/21	IN543384	01-12.B810	Dig 4&5 Cntr Door Replace	3603.00	3603.00	103733
TERRACE SUPPLY COMPANY	T000250	11/30/21	01030131	01-12.B116	Nov Cylinder Rentals	55.84		

VENDOR NAME	VENDOR NUMBER	INVOICE DATE	INVOICE NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
		12/31/21	01031083	01-12.B116	December Cylinder Rentals	55.80		
		12/23/21	70519479	01-12.B512	Portable Gas Welder	6347.92		
		12/27/21	70519532	01-12.B512	Ext Cables Portable Weldr	340.81		
		12/28/21	70519627	01-12.B113	Welding Helmet	229.00	7029.37	103734
TRI-K, INC.	T000535	12/14/21	117821	01-12.B103	Deoderant	1427.00	1427.00	103735
U.S. UPFITTERS	U000120	12/16/21	88515	01-14.C225	Light Bar Install	375.00	375.00	063362
USABLUEBOOK	U000150	01/06/22	838545	01-13.B114	Lab Chemicals	967.32	967.32	063363
UNITED PARCEL SERVICE	U000300	12/18/21	3Y0091511	01-14.B115	Part Return Shipping	38.66	38.66	063364
UNO CONSTRUCTION CO., INC.	U000450	12/31/21	6	01-14.B910	BSSRAP Projects	105749.10	105749.10	103736
VWR INTERNATIONAL INC.	V000030	12/17/21	8807063835	01-13.B116	Lab Supplies	441.65	441.65	063365
VERIZON WIRELESS	V000135	01/01/22	542042956	01-12.B112	WWTC Tablet Service	118.05		
		01/01/22	542042956	01-14.B112	SS Tablet Service	87.48		
		01/01/22	542042956	01-15.B112	LS Tablet Service	36.01		
		12/28/21	785846626	01-11.B112	Admin Cell Service	207.88		
		12/28/21	785846626	01-12.B112	WWTC Cell Service	928.89		
		12/28/21	785846626	01-13.B112	Lab Cell Service	148.41		
		12/28/21	785846626	01-14.B112	SS Cell Service	484.91		
		12/28/21	785846626	01-15.B112	LS Cell Service	277.06	2288.69	063366
WAGNER COMMUNICATIONS, INC	W000070	01/01/22	220100067	01-11.B112	Answering Service	293.94	293.94	103737
WASTE MANAGEMENT	W000170	12/31/21	001524447198	01-12.B102	Garbage & Recycling	396.86	396.86	063370
WESTFAX	W000350	01/01/22	1384855	01-11.B112	EFax Service	8.99	8.99	103738
VILLAGE OF WESTMONT	W000450	12/21/21	717344	01-11.B121	Meter Readings	370.01	370.01	063367
						==========	==========	
					Total Payments:	205425.85	205425.85	
					ACH Payments Total:	169133.04	.00	
					Check Payments Total:	36292.81	205425.85	

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
CHASE	B000050	12/22/21	PR 12/11/21	01-00.2000	Federal Taxes	9924.04		
		12/22/21	PR 12/11/21	01-00.2002	Empl Soc Sec Tax	6729.41		
		12/22/21	PR 12/11/21	01-17.E461	Emplr Soc Sec Tax	6729.41	23382.86	103675
CHASE	B000050	12/22/21	SPR 12/15/21	01-00.2000	Federal Taxes	3384.45		
		12/22/21	SPR 12/15/21	01-00.2002	Empl Soc Sec Tax	1792.20		
		12/22/21	SPR 12/15/21	01-17.E461	Emplr Soc Sec Tax	1792.23	6968.88	103676
CHASE	B000050	12/30/21	PR 12/25/21	01-00.2000	Federal Taxes	9254.27		
		12/30/21	PR 12/25/21	01-00.2002	Empl Soc Sec Tax	6430.62		
		12/30/21	PR 12/25/21	01-17.E461	Emplr Soc Sec Tax	6430.67	22115.56	103683
CHASE	B000050	01/06/22	SPR 12/31/21	01-00.2000	Federal Taxes	3133.37		
		01/06/22	SPR 12/31/21	01-00.2002	Empl Soc Sec Tax	2152.28		
		01/06/22	SPR 12/31/21	01-17.E461	Emplr Soc Sec Tax	2152.28	7437.93	103684
D.G. SANIT DIST #XXXXXXXXX1117	D000400	01/19/22	Reimburse	01-00.1001	Payroll Acct Reimburse	144482.43	144482.43	103695
D.G. SANIT DIST #XXXXXXXXX1114	D000420	01/19/22	Reimburse	01-05.3001	User Refund Acct Reimburs	1930.72	1930.72	103696
D.G. SANIT DIST #XXXXXXXXX1112	D000440	01/19/22	Reimburse	01-12.B117	NP Webinar	15.00		
		01/19/22	Reimburse	01-14.B901	DG Village Permit Fee	222.60		
		01/19/22	Reimburse	01-14.B910	BSSRAP Rodding Refunds	1970.65	2208.25	103697
DUPAGE CREDIT UNION	D000650	12/17/21	PR 12/11/21	01-00.2013	Empl Authorized W/Holding	2419.00	2419.00	103674
DUPAGE CREDIT UNION	D000650	12/30/21	PR 12/25/21	01-00.2013	Empl Authorized W/Holding	2419.00	2419.00	103682
HEALTH CARE SERVICE CORP.	H000190	01/10/22	165585	01-17.E455	Health Insurance	47892.97	47892.97	103693
HUDSON ENERGY SERVICES, LLC	H000495	01/12/22	Various	01-15.B100	LS Electric	6556.24	6556.24	063332
ILLINOIS DEPARTMENT OF REVENUE	I000240	12/22/21	PR 12/11/21	01-00.2001	State Tax	4080.88	4080.88	103677
ILLINOIS DEPARTMENT OF REVENUE	I000240	12/22/21	SPR 12/15/21	01-00.2001	State Taxes	1347.88	1347.88	103678
ILLINOIS DEPARTMENT OF REVENUE	I000240	12/30/21	PR 12/25/21	01-00.2001	State Taxes	3888.53	3888.53	103685
ILLINOIS DEPARTMENT OF REVENUE	I000240	01/06/22	SPR 12/31/21	01-00.2001	State Taxes	1303.23	1303.23	103686
ILLINOIS MUNICIPAL	I000300	01/07/22	Pension	01-00.2003	Empl Pension Deposit	13613.74		
		01/07/22	Pension	01-00.2014	Empl Vol Pension Deposit	11283.35		
		01/07/22	Pension	01-17.E460	Emplr Pension Deposit	30464.35	55361.44	103690
INVOICE CLOUD	I000750	01/10/22	607-2021-12	01-11.B121	Billing Portal Fees	503.40	503.40	103691
MIDAMERICA ADMIN HRA ACCOUNT	M000557	12/28/21	HRA Funding	01-17.E455	HRA Acct Funding	700.00	700.00	103681
TRANSAMERICA RETIREMENT	T000415	12/17/21	PR 12/11/21	01-00.2026	Def Comp IPPFA	285.64		
		12/17/21	PR 12/11/21	01-00.2027	Def Comp Roth IPPFA	240.00		
		12/17/21	PR 12/11/21	01-00.2028	Def Comp Loan Repay IPPFA	234.80	760.44	103679
TRANSAMERICA RETIREMENT	T000415	12/17/21	SPR 12/15/21	01-00.2026	Def Comp IPPFA	450.57		
		12/17/21	SPR 12/15/21	01-00.2028	Def Comp Loan Repay IPPFA	77.06	527.63	103680
TRANSAMERICA RETIREMENT	T000415	12/30/21	PR 12/25/21	01-00.2026	Def Comp IPPFA	297.76		
		12/30/21	PR 12/25/21	01-00.2027	Def Comp Roth IPPFA	240.00		
		12/30/21	PR 12/25/21	01-00.2028	Def Comp Loan Repay IPPFA	234.80	772.56	103687
TRANSAMERICA RETIREMENT	T000415	01/04/22	SPR 12/31/21	01-00.2026	Def Comp IPPFA	439.41		
		01/04/22	SPR 12/31/21	01-00.2028	Def Comp Loan Repay IPPFA	77.06	516.47	103688
US TREASURY - PAY.GOV	U000163	12/22/21	26UDEK07	01-12.B117	WWTC CDL Queries	47.78		
		12/22/21	26UDEK07	01-14.B117	SS CDL Queries	14.72	62.50	103694
Zoom Inc.	Z000200	12/26/21	P-139747782	01-11.B115	Subscription	40.00	40.00	103692
						==========	==========	
					Total Payments:	337678.80	337678.80	
					ACH Payments Total:	331122.56	.00	
					Check Payments Total:	6556.24	337678.80	

========== VENDOR ==========		====== INVOICE =======						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
BAXTER & WOODMAN, INC.	B000120	12/17/21	0229867	02-47.0504	Centex LS Replacement	436.25	436.25	103739
						==========	==========	
					Total Payments:	436.25	436.25	
					ACH Payments Total:	436.25	.00	
					Check Payments Total:	.00	436.25	

DATE _____

REVIEWED _____

TRUSTEE APPROVAL _____

PRESIDENT

_____

CLERK

Downers Grove Sanitary District

ACCOUNTS PAYABLE GENERAL LEDGER RECAP FOR 01/18/22

Date: 01/13/22
Time: 1:38pm

G/L NUMBER	COST ACCTG DESCRIPTION	DEBIT	CREDIT
01-00.1000	CASH		543104.65-
01-00.1001	CASH - PAYROLL ACCOUNT	144482.43	
01-00.2000	FEDERAL TAX WITHHELD	25696.13	
01-00.2001	STATE TAX WITHHELD	10620.52	
01-00.2002	SOCIAL SECURITY WITHHELD	17104.51	
01-00.2003	IMRF WITHHELD	13613.74	
01-00.2005	CLEARING	102.87	
01-00.2013	CREDIT UNION WITHHELD	4838.00	
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION	11283.35	
01-00.2026	DEFERRED COMPENSATION WITHHELD - IPPFA	1473.38	
01-00.2027	DEFERRED COMPENSATION WITHHELD - IPPFA ROTH	480.00	
01-00.2028	DC PLAN LOAN REPAYMENT WITHHELD	623.72	
01-05.3001	USER RECEIPTS	1930.72	
01-11.B101	NATURAL GAS	305.26	
01-11.B102	WATER, GARBAGE AND OTHER UTILITIES	90.22	
01-11.B110	BANK CHARGES	33.10	
01-11.B112	COMMUNICATION	1455.71	
01-11.B113	EMERGENCY/SAFETY EQUIPMENT	273.41	
01-11.B115	EQUIPMENT/EQUIPMENT REPAIR	5311.03	
01-11.B116	SUPPLIES	129.94	
01-11.B117	EMPLOYEE/DUTY COSTS	59.00	
01-11.B118	BUILDING AND GROUNDS	805.38	
01-11.B119	POSTAGE	3.89	
01-11.B120	PRINTING/PHOTOGRAPHY	385.25	
01-11.B121	USER BILLING MATERIALS	5169.47	
01-11.B124	CONTRACT SERVICES	3135.81	
01-11.C222	GAS/FUEL	38.55	
01-12.B100	ELECTRICITY	228.53	
01-12.B101	NATURAL GAS	1418.52	
01-12.B102	WATER, GARBAGE AND OTHER UTILITIES	3165.25	
01-12.B103	ODOR CONTROL	1427.00	
01-12.B112	COMMUNICATION	1046.94	
01-12.B113	EMERGENCY/SAFETY EQUIPMENT	606.57	
01-12.B116	SUPPLIES	1038.99	
01-12.B117	EMPLOYEE/DUTY COSTS	1318.25	
01-12.B402	CHEMICALS - SLUDGE DEWATERING	5443.38	
01-12.B501	EQPT/EQPT REPAIR - BIOSOLIDS AGING & DISPOSAL	561.30	
01-12.B506	EQPT/EQPT REPAIR - PRIMARY TREATMENT	1678.88	
01-12.B507	EQPT/EQPT REPAIR - SECONDARY TREATMENT	1945.15	
01-12.B509	EQPT/EQPT REPAIR - SLUDGE DEWATERING	2551.96	
01-12.B510	EQPT/EQPT REPAIR - SLUDGE DIGESTION	2612.88	
01-12.B511	EQPT/EQPT REPAIR - TERTIARY TREATMENT	47.20	
01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	6840.85	
01-12.B513	EQPT/EQPT REPAIR - WWTC UTILITIES	9831.18	
01-12.B805	BLDG AND GROUNDS - INFLUENT PUMPING	666.66	
01-12.B810	BLDG AND GROUNDS - SLUDGE DIGESTION	3603.00	

G/L NUMBER	COST ACCTG DESCRIPTION	DEBIT	CREDIT
01-12.B811	BLDG AND GROUNDS - TERTIARY TREATMENT	333.49	
01-12.B812	BLDG AND GROUNDS - WWTC GENERAL	818.08	
01-12.C222	GAS/FUEL	1644.39	
01-12.C225	OPERATION/REPAIR	246.39	
01-13.B112	COMMUNICATION	148.41	
01-13.B114	CHEMICALS	1730.12	
01-13.B116	SUPPLIES	2237.69	
01-13.B117	EMPLOYEE/DUTY COSTS	395.23	
01-13.B123	OUTSIDE LAB SERVICES	1392.20	
01-13.C222	GAS/FUEL	51.92	
01-14.B112	COMMUNICATION	572.39	
01-14.B113	EMERGENCY/SAFETY EQUIPMENT	307.43	
01-14.B115	EQUIPMENT/EQUIPMENT REPAIR	38.66	
01-14.B116	SUPPLIES	819.82	
01-14.B117	EMPLOYEE/DUTY COSTS	233.57	
01-14.B128	OVERHEAD SEWER/BACKFLOW PREVENTION PROGRAM	2857.00	
01-14.B901	SEWER SYSTEM REPAIRS - I/I PROGRAM	3758.35	
01-14.B902	SEWER SYSTEM REPAIRS - REPLACEMENT	127.50	
01-14.B910	SEWER SYSTEM REPAIRS - BSSRAP PROGRAM	111406.90	
01-14.C222	GAS/FUEL	1017.73	
01-14.C225	OPERATION/REPAIR	486.67	
01-15.B100	ELECTRICITY	9687.16	
01-15.B112	COMMUNICATION	372.65	
01-15.B520	EQPT/EQPT REPAIR - BUTTERFIELD	4754.76	
01-15.B521	EQPT/EQPT REPAIR - CENTEX	908.39	
01-15.B527	EQPT/EQPT REPAIR - VENARD	279.79	
01-17.E452	LIABILITY/PROPERTY	706.00	
01-17.E455	EMPLOYEE GROUP HEALTH	52725.14	
01-17.E460	IMRF	30464.35	
01-17.E461	SOCIAL SECURITY	17104.59	
02-00.1000	CASH		436.25-
02-47.0504	CONSTRUCTION ADMIN/RESIDENT ENG/ARCH SUPRVISN	436.25	
		543540.90	543540.90-

Grainger and Home Depot Purchase Summary - January 2016

Vendor	Invoice Date	Amount	Coding	Coding Description	Purchase Location	Emp.	Procurement	Project Name (If applicable)	Item Description
Grainger	12/23/21	$6.94	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	AC		Maintenance Repair Supplies	Hex Drill Bit Insert (2)
Grainger	12/27/21	$65.30	01-13.B114	CHEMICALS	Delivered	DRB		Lab Chemicals	Blue Buffer Solution
Grainger	12/27/21	$140.44	01-13.B116	LAB SUPPLIES	Delivered	DRB		Lab Supplies	Sampler Scoop
Grainger	12/30/21	$141.62	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	Delivered	RF		WWTC Front Gate Warning Strobes	Amber Strobe Light (2)
Grainger	12/30/21	$244.60	01-13.B116	LAB SUPPLIES	Delivered	DRB	circle K	Grease Waste Collection	sample cups
Grainger	01/06/22	$4.00	01-12.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	Delivered	JG		Safety Supplies	50 Pack Procedural Mask (2)
Grainger	01/06/22	$5.82	01-11.B113	ADMIN SAFETY	Delivered	JG		Safety Supplies	
Grainger	12/15/21	$335.10	01-12.B510	EQPT/EQPT REPAIR - SLUDGE DIGESTION	Delivered	MM			Pearth 4 oil
Grainger	01/06/22	$231.80	01-12.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	Delivered	MM			Nitrile Gloves
Grainger	01/04/22	$230.64	01-12.B513	EQPT/EQPT REPAIR - WWTC UTILITIES	Delivered	MM		Unison Gas Testing	Drager tubes for H2S testing
Home Depot	01/07/22	$13.75	01-11.B118	ADMIN BUILDING & GROUNDS	In-Store	RF		Administration Building Smoke & CO Detector Upgrade	Toggle Bolts 4PC (5)
Home Depot	01/06/22	$75.96	01-12.B116	WWTC SUPPLIES	In-Store	CP		WWTC Supplies	Hand Soap, Dish Soap, Brass & Copper Fittings
Home Depot	12/17/21	$75.12	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	AH			bleach, laundry detergent, tote for comm devices
Home Depot	01/05/22	$94.23	01-12.B116	WWTC SUPPLIES	In-Store	CP		WWTC Supplies	Cleaing supplies & Vacuum Filters
Home Depot	12/16/21	$19.96	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	AL		Roslyn Rd. Easement Sewer	Grade Stakes
Home Depot	12/15/21	$39.86	01-12.B116	WWTC SUPPLIES	In-Store	CP		Supplies	Battery Tender (Charger) & 2 Cycle Fuel
Home Depot	01/03/22	$21.97	01-12.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	In-Store	BS	Same Reciept	Safety Supplies	Safety Glasses (3)
Home Depot	01/03/22	$29.94	01-12.B117	EMPLOYEE/DUTY COSTS	In-Store	BS	Same Trip	Safety Supplies	Neck Gaiter (2)
Home Depot	10/04/21	$45.74	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	CP		MSB Locker Room	Shelf Brackets & Hooks
Home Depot	1/1/2022	$137.62	01-14.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	In-Store	AH			N95 masks
Home Depot	1/11/2022	$213.66	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	AH		Flow Meters	Batteries
Home Depot	1/11/2022	$225.53	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	AH		Flow Meters	Batteries
Home Depot	1/11/2022	$273.01	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	AH		Flow Meters	Batteries
Home Depot	1/1/2022	$43.94	01-14.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	In-Store	AH			N95 masks
Home Depot	1/1/2022	-$69.66	01-14.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	In-Store	AH			N95 masks
Home Depot	1/1/2022	$85.88	01-14.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	In-Store	AH			N95 masks
Home Depot	12/21/21	$63.97	01-11.B116	ADMIN SUPPLIES	In-Store	AMB			Contractor Measuring Wheel
Home Depot	01/10/22	$73.40	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	In-Store	CP		Maintenance Repair Supplies	Gear ties, misc hardware
Home Depot	1/1/2022	$69.66	01-14.B113	WWTC EMERGENCY/SAFETY EQUIPMENT	In-Store	AH			N95 masks

Date: **1/13/2022** **Petty Cash Checking Reimbursement** **D-440**
Due Date: **1/19/2022**
Invoice #: **Reimburse**

Date	Purchased From	Description	Code	Amount	Ck No.
12/15/22	DG Village	Permit Fee	14.B901	222.60	3738
12/15/22	CSWEA	NP Webinar	12.B117	15.00	3739
12/16/22	Caitlyn Rahe	BSSRAP Rodding Refund	14.B910	394.13	3740
12/16/22	Joyce His	BSSRAP Rodding Refund	14.B910	394.13	3741
12/23/22	Nina & Andrea Erickson	BSSRAP Rodding Refund	14.B910	394.13	3742
12/23/22	Andrew Brummel	BSSRAP Rodding Refund	14.B910	394.13	3743
12/27/22	Jeff Carr	BSSRAP Rodding Refund	14.B910	394.13	3744

Total Receipts/Reimbursement 2208.25

Expense by code

12.B117	15.00
14.B901	222.60
14.B910	1970.65
	2208.25

Date: **1/13/2022** **Petty Cash Reimbursement** **P - 350**

Due Date: **1/18/2022**

Invoice #: Cash Box

Date	Purchased From	Reimbursed To	Description	Code	Amount
12/16/21	Harbor Freight	MR	Maintenance Repair Supplies - Magnetic Hooks	12.B116	21.45
12/21/21	USPS	MM	Postage Due	11.B119	3.89
12/27/21	Amazon	JG	Face Masks	11.B113	13.33
1/12/22		MR	Zipper Repair on Jacket	12.B117	30.00
1/13/22	Sec of State	MAR	CDL endorsements	12.B117	5.00
1/13/22	Aldi	CP	Hand Sanitizer	11.B113	16.05
			Total Receipts		89.72

Expense by code

11.B113	29.38
11.B119	3.89
12.B116	21.45
12.B117	35.00
	89.72

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

December 22, 2021

DOWNERS GROVE SANITARY DISTRICT
NOTICE OF SCHEDULE OF REGULAR MEETINGS

The Downers Grove Sanitary District hereby gives notice that the regular meetings of the Board of Trustees shall be held on the following Tuesdays during calendar year 2022:

- January 18
- February 8
- March 15
- April 19
- May 24
- June 14
- July 19
- August 16
- September 27
- October 18
- November 15
- December 20

These meeting will be held at the Downers Grove Sanitary District Administration Center, 2710 Curtiss Street, Downers Grove, Illinois, and shall convene at 7:00 p.m. All Board of Trustees meetings are open to the public.

DOWNERS GROVE SANITARY DISTRICT

2021 WWTC PERFORMANCE REPORT

DOWNERS GROVE SANITARY DISTRICT
2021 WWTC PERFORMANCE REPORT

TO: Board of Trustees

FROM: Amy R. Underwood
General Manager

DATE: January 14, 2022

SUMMARY OF 2021 OPERATIONS

Total Flow to WWTC: 3,553,503,700 gallons
Average Daily Flow: 9.74 MGD

Total Complete Treatment Flow: 3,498,954,700 gallons
Average Daily Complete Treatment Flow: 9.59 MGD

District Billed Flow: 2,009,731,964 gallons
Ratio of Billed Flow to Total WWTC Flow: 56.6%
Ratio of Billed Flow to Total Complete Treatment Flow: 57.4%

Precipitation Total for 2021: 29.66''

Net Electrical Consumption: -374,173 KW Hrs.
Average Daily Electric Usage: -1,025 KW Hrs.

Complete Treatment Flow Characteristics – Average Daily Values

Influent Concentrations:	BOD	225 mg/L
	TSS	203 mg/L
	NH3-N	19.7 mg/L

Influent Loadings:	BOD	16,878 lbs. /day
	TSS	14,665 lbs. /day
	NH3-N	1,312 lbs. /day

Effluent Concentrations:	CBOD	1.1 mg/L
	TSS	0.9 mg/L
	NH3-N	0.3 mg/L

Effluent Loadings:	CBOD	97 lbs. /day
	TSS	93 lbs. /day
	NH3-N	38 lbs. /day

Biosolids Production, after digestion: 10,743,376 gallons
2,274,125 lbs. dry solids
1,137 dry tons

WASTEWATER TREATMENT CENTER FLOWS

WWTC FLOW (TABLES 1, 2, 3 & 4)

As shown in Table 1, the total flow to the treatment center in 2021 was 3,553,503,700 gallons, with 98.5% of this total, or 3,498,954,700 gallons, receiving tertiary treatment. The total flow for the year equates to an average daily flow of 9.74 MGD as compared to an average tertiary flow of 9.59 MGD. Excess flow treatment was in operation for 148 hours during the year, or 1.7% of the time, and accounted for 54,549,000 gallons.

Table 2 compares the 2021 flows to the past 46 years:

- 2021 was a dry year, with the annual rainfall of 29.66 inches being the 10th lowest in the 46-year reporting period. This resulted in the 8th lowest historic total flow volume of 3,553.5 MG. The 46-year reporting period has an annual average of 34.16 inches of rainfall. In comparison, the past ten years has an average of 42.46 inches of annual rainfall.

- The tertiary or complete treatment volume of 3,499.0 MG for 2021 was the 9th lowest flow year at the WWTC when viewed over the 46-year period.

- The excess flow volume of 54.50 MG for 2021 was the 3rd lowest total over the 46-year period.

Wet weather discharges are summarized in Table 3. The discharge to St. Joseph Creek, Outfall 002, was in use for 166 hours in 2021 and accounted for 91 MG. The operation hours represent 1.9% of the year. The St. Joseph discharge for 2021 represented 2.6% of the total flow. St. Joseph Creek is intended to be used when the combined tertiary and excess flows exceed the capacity of the Outfall 001 pipe, rated for 30.0 MGD. Due to the delay in repairing a sag in the Outfall 001 pipe, cleaning of roots out of the Outfall 001 pipe has not happened in several years. In 2021, effluent overflowed to Outfall 002 before 30.0 MGD was reached.

Outfall C01 discharge can be used when flows exceed both the tertiary plant capacity and the capacity of the excess flow clarifiers. Intermediate Clarifier No. 1 is temporarily converted from a tertiary treatment unit to an excess flow treatment unit. This outfall was in use for 5.5 hours and accounted for 1.9 MG in 2021.

Outfall 003 can be used when peak flows exceed both the tertiary plant capacity and the capacity of the excess flow clarifiers. Operators typically do not use Outfall 003 until Outfall C01 is already in service. Intermediate Clarifiers Nos. 2 & 3 are temporarily converted from tertiary treatment to excess flow treatment units. This outfall was in use for 3 hours and accounted for 0.6 MG in 2021.

Given that 2021 was a record dry year, it is significant to note that Outfalls C01 and 003 were used. This suggests that the intensity of rainfall events is higher than it has been historically.

As shown in Table 4, the current plant design of 11.0 MGD for tertiary treatment was exceeded on 64 days, or 18% of the days, during 2021.

WWTC CAPACITY (TABLE 5)

The Illinois EPA determines remaining capacity at a treatment facility by reviewing the past twelve months of average influent flow data at the facility. The three lowest flow months for the period plus outstanding Illinois EPA permits for new development issued to the District over the past two years determines the remaining hydraulic capacity. Table 5 indicates the remaining capacity at the WWTC during the course of the past six years. As indicated, the WWTC is currently at 66% capacity in terms of remaining hydraulic capacity. This is based on an average flow of 7.2 MGD, which is the average of the three lowest flow months during 2021. Remaining capacity, based on organic loading, is also indicated in Table 5. The WWTC organic loading is currently in the range of 79% to 119% of capacity, depending on the parameter. Organic loading can be used by IEPA as an indicator of reserve capacity if hydraulic limits are approached or operational difficulties stem from high organic loading.

The percent of the ammonia capacity utilized appears to be lower in 2020 and 2021 than previous years. Between March 2020 and July 2021, the number of weekly influent ammonia samples was reduced from five per week to the two samples per week required by the NDPES permit. This was due to the impacts of the COVID-19 pandemic on laboratory staffing. The belt filter press (BFP) recycle is high in ammonia and is mixed with the incoming raw wastewater prior to the influent composite sampler. The BFP is not operated daily. When only two influent samples are collected weekly, 50% of them typically include BFP recycle whereas 80% of the samples include BFP recycle when five samples are collected weekly.

TREATMENT PROVIDED (TABLES 6, 7 and 8)

The yearly average effluent results in 2021 were well below the NPDES Permit requirements. The effluent CBOD concentration averaged 1.1 mg/l, TSS was at 0.9 mg/l, and ammonia-nitrogen was 0.30 mg/l.

Over the ten-year period, as indicated in Table 6, the yearly averages have ranged from 1.0 to 1.6 mg/L for CBOD, 0.5 to 1.2 mg/L for TSS, and 0.1 to 0.6 mg/L for ammonia-nitrogen.

Table 7 provides the monthly process performance and removal values for 2021. A ten-year history indicating yearly process performance and removal values is presented in Table 8.

NPDES PERMIT COMPLIANCE

The WWTC operated with three permit excursions in 2021. The plant was operating at its peak capacity due to a large rainfall event in June when the daily maximum fecal

coliform concentration excursion occurred at 003 Outfall. In the same event, both the concentration and the loading limits for TSS were exceeded at the B01 outfall.

SLUDGE QUANTITIES (TABLES 9 and 10)

Total raw sludge pumping to the digestion processes is shown in Table 9. The total of primary sludge, thickened waste activated sludge (TWAS) and hauled grease waste was 19,769,724gallons for 2021. This is 7.3% lower than in 2020. Placing the waste activated sludge (WAS) thickener into service in January decreased the volume of sludge from the secondary process that goes to digestion. Digester supernatant (clear water decanted from the process) was slightly higher than the value of 2020.

In 2021, total digested sludge pumping was 10,743,376 gallons. Of the total, 75.1% or 8,067,464 gallons, was dewatered on the belt filter press. 511,212 gallons, or 4.8% of the total, was placed in the sludge lagoons seeded with reeds. The remaining 20.1% of the digested sludge in 2021, or 2,164,700 gallons, was dewatered on the drying beds. A ten-year history on sludge production is included in Table 10.

The 2020 composting pilot was continued into early 2021. An additional compost heap was constructed at the beginning of the year, resulting in an additional 45 tons of dewatered sludge from the belt filter press being composted.

BIOSOLIDS DISPOSAL (TABLE 11 & 12)

Biosolids disposal through the public distribution program for 2021 totaled 2,537 cubic yards. This was an increase over the 2020 annual total of 1,522 cubic yards. Deliveries for 2021 accounted for 86% of the total or 2,170 yards. The pickup station accounted for 12% or 308 yards. District use at the plant was nominal at only 12 yards. Contractor pickup was 2% of the total or 47 yards. The above total yards to public distribution includes 174 cubic yards of composted biosolids from the pilot program.

Sludge dewatered on the belt filter press (BFP) continues to be less dense than in past years (i.e., before receiving grease). The anticipated improvement in dewatering due to extra digestion time in Digester provided by placing the WAS thickener into service was not realized. While the concentration of the digested sludge going to the BFP increased from 2.6% to 5.6% on average, the percent solids of the dewatered sludge decreased from 13.8% to 12.5%. It is believed this is due to the increase in hauled grease waste needed for the second CHP. Less dense dewatered sludge effectively reduces the storage time available for aging, requiring a Class B land application in order to sustain adequate aging for the bulk of biosolids production as a Class A product.

While less sludge was produced in the WWTC in 2021 than in 2020 (Table 9) and less volume of biosolids was distributed in 2021 than in 2020 (Table 12), more dry tons of biosolids were distributed than in 2020 (Table 12). The decrease in volume for disposal but increase in dry tons was due to less Class B biosolids in comparison to Class A biosolids being disposed of. (The Class B biosolids is much wetter than the Class A biosolids.) Due to the dry weather in 2021, Staff was able to get the backlog of biosolids that was onsite due to the excess rain events in 2019 mostly cleared out this year.

2,030 cubic yards of material were removed in April and 1,750 cubic yards were removed in November by a hauling contractor and hauled to farm field for Class B land application in order to make space available for belt press cake storage. This represents 440 dry tons of solids.

UTILITIES (TABLES 13 and 14)

Electrical consumption from ComEd for 2021 was substantially lower than consumption in 2020. This was due to having two CHP units in operation in 2021. The total yearly net consumption from ComEd was -374,173 kW-hours, for an average daily use of -1,025 kW-hours.

Natural gas consumption for 2021 was at 802,550 cubic feet, an increase from 2020.

City water consumption for the year was at 1,126,039 gallons, reflecting full use of the hypochlorite generation system.

DIGESTER GAS UTILIZATION (TABLE 15)

Total digester gas production for 2021 was at 66,902,773 cubic feet, for a daily average of 183,295 cubic feet. Gas was utilized in the CHP facility, where a total of 60,574,223 cubic feet of gas was used in 2021. The digester heat exchangers used 1,173,765 cubic feet of gas. Wasting of digester gas (gas flared) totaled 1,456,328 cubic feet in 2021. This is less than 10% of the gas flared in 2020 due to the addition of the second CHP unit. Gas was flared when the supply exceeded the demand and when needed due to equipment outages.

Total gas production was higher in 2021 as compared to 2020. This was due to more hauled grease waste being accepted as a result of having two CHP engines in service.

CHEMICAL USAGE (TABLES 16 and 17)

Sodium hypochlorite and sodium bisulfite were utilized for the year for disinfection and dechlorination. In 2021, hypochlorite was used at 16.2 pounds per million gallons of tertiary flow, an increase compared to 2020.

The amount reported for excess flow includes the totals used to treat return activated sludge for filamentous control.

Hypochlorite used in 2021 was mostly that produced by the OSEC unit (hypochlorite generator) with a little supplemented from delivered bulk hypochlorite. We received 8,500 gallons of bulk hypochlorite and produced 784,084 gallons from the OSEC unit to meet the disinfection needs for the year.

Sodium bisulfite was used at a rate of 9.3 pounds per million gallons, making 2021 the highest year in the ten-year history shown in Table 17.

Dewatering polymer use in 2021 was at 27,000 pounds for 2,274,125 pounds of sludge on a dry solids basis and equated to 84.2 pounds of dry solids per pound of polymer. Thickening polymer use, which is used in the WAS Thickener, was 22,275 pounds for 1,190,702 pounds of sludge on a dry basis and equated to 53.5 pounds of dry solids per pound of polymer.

NUTRIENTS (TABLE 18)

The NPDES permit requires routine monitoring of influent and effluent total nitrogen and phosphorus concentrations. Table 18 summarizes that data and applies the concentration data to the monthly flows to estimate loads. 40% removal of phosphorus and 48% removal of nitrogen occurred across the plant in 2021. Biological phosphorus removal does not work as well during warmer, dry months, as can be seen by the drop in percent removals in July and August.

Table 19 compares the annual average nutrients influent, effluent and percentage removals since monitoring began in 2015. Percent removal of nutrients was lower in the past two years that it was in the few preceding years.

SUMMARY

While rainfall and total flow to the WWTC in 2021 were the lowest in the last nine years, the WWTC still had a historic flow event in June where it operated at its peak capacity. This event was a high intensity, short duration rainfall event.

Billable flow as a proportion of total flow was approximately 57%, reflecting the higher proportion of I/I due to annual precipitation. The need for system I/I reduction continues.

Plant reserve capacity appears to be adequate. Dry weather low flows remain well below the plant's hydraulic capacity, the primary method used to determine reserve capacity.

Overall, the WWTC effluent quality was excellent for the parameters controlled in the NPDES permit. The plant operated with three permit excursions in 2021 which were from one extreme rainfall event in June. Since the Submersible Excess Flow Pump Station was installed in 1996 to allow the District to use Intermediate Clarifiers 2 and 3 during excess flow events, Outfall 003 has only been used eight times. With the exception of the April 2013 event, Outfall 003 is typically only in service a few minutes to a few hours. District operators have never been able to optimize the performance of Outfall 003 due to the typically brief nature of these events. Of the eight events, the April 2013 event, which spanned over three days, was the only event which did not result in a permit excursion. Since the use of Outfall 003 has not become an annual occurrence, District Staff intend to develop a long-term plan for improvements to this system in 2022.

The WAS thickener, which was placed into operation the last week of 2020, was expected to improve biosolids quality by allowing better digestion due to increased detention time in the digester. This benefit was not realized after a year of operation of the WAS thickener. The dewatered sludge from the belt filter press was wetter in 2021 than the previous year. The additional hauled grease waste that is being accepted is

believed to have impacted both digestion and dewatering. District operators are currently making changes that are expected to improve digestion and are hoped to improve dewatering. District staff are also looking into different dewatering technology that would perform better with the grease in the sludge than the existing BFP does.

A new 375-kW Nissen CHP system was started up in February 2021 and placed into service in March 2021. In order to keep two CHP units in operation, the quantity of hauled grease waste was increased. As a result, the WWTC operated at net zero energy for the year, even with the hypochlorite generator (OSEC) in service. The District received $160,000 in incentives through the ComEd Energy Efficiency Program for the first two quarters of the one-year monitoring program.

TABLE 1
WWTC FLOW
2021

MONTH	PRECIPITATION INCHES	TERTIARY FLOW RECEIVED (MG)	EXCESS FLOW RECEIVED (MG)	TOTAL FLOW RECEIVED (MG)	EXCESS FLOW HOURS ON	EXCESS FLOW % HRS. ON	EXCESS FLOW % OF TOTAL
Jan	1.04	322.28	0.00	322.28	0.00	0.00	0.00
Feb	1.01	306.94	12.00	318.94	36.00	5.36	3.76
Mar	1.74	451.38	4.88	456.26	39.20	5.27	1.07
Apr	1.39	260.74	0.00	260.74	0.00	0.00	0.00
May	3.47	305.75	0.00	305.75	0.00	0.00	0.00
Jun	6.74	325.16	20.69	345.85	33.30	4.63	5.98
Jul	1.47	293.06	2.86	295.92	14.70	1.98	0.97
Aug	1.85	225.25	0.00	225.25	0.00	0.00	0.00
Sep	0.91	187.88	0.00	187.88	0.00	0.00	0.00
Oct	6.32	295.92	14.11	310.03	24.60	3.31	4.55
Nov	1.00	237.37	0.00	237.37	0.00	0.00	0.00
Dec	2.72	287.22	0.00	287.22	0.00	0.00	0.00
TOTALS	29.66	3,498.95	54.55	3,553.50	147.80	1.69	1.54

WWTC FLOW RATES FOR	2021
Daily average total treatment flow -	9.74
Daily average tertiary treatment flow -	9.59
Daily average excess treatment flow -	0.15

TABLE 2

VOLUME OF FLOW RECEIVED AND DURATION OF EXCESS FLOW OPERATION
January 1, 1976 to December 31, 2021

PERIOD	PRECIPITATION INCHES	TERTIARY FLOW	EXCESS FLOW RECEIVED MG	TOTAL FLOW RECEIVED MG	% EXCESS OF TOTAL FLOW	OPERATIONAL HRS. EXCESS FLOW	% EXCESS OF TOTAL HRS.
1/1/76 - 12/31/76	29.39	2,960.9	174.9	3,135.8	5.6%	400.25	4.6%
1/1/77 - 12/31/77	33.22	3,334.6	104.5	3,439.1	3.0%	329.50	3.8%
1/1/78 - 12/31/78	31.02	3,419.0	228.3	3,647.3	6.3%	790.25	9.0%
1/1/79 - 12/31/79	36.55	3,518.2	820.8	4,339.0	18.9%	1791.25	20.4%
1/1/80 - 12/31/80	33.00	3,866.1	235.0	4,101.1	5.7%	697.50	7.9%
1/1/81 - 12/31/81	23.02	3,510.1	141.0	3,651.1	3.9%	347.00	4.0%
1/1/82 - 12/31/82	33.10	3,531.3	370.3	3,901.6	9.5%	826.87	9.4%
1/1/83 - 12/31/83	34.34	3,726.4	328.0	4,054.4	8.1%	613.50	7.0%
1/1/84 - 12/31/84	25.38	3,742.1	206.5	3,948.6	5.2%	456.75	5.2%
1/1/85 - 12/31/85	31.97	3,611.2	228.0	3,839.2	5.9%	440.26	5.0%
1/1/86 - 12/31/86	25.60	3,550.1	54.3	3,604.4	1.5%	162.83	1.9%
1/1/87 - 12/31/87	33.47	3,754.9	187.3	3,942.2	4.8%	374.38	4.3%
1/1/88 - 12/31/88	22.56	3,518.6	148.2	3,666.8	4.0%	446.07	5.1%
1/1/89 - 12/31/89	25.19	3,377.9	62.9	3,440.8	1.8%	110.58	1.3%
1/1/90 - 12/31/90	43.12	4,189.3	286.4	4,475.7	6.4%	413.33	4.7%
1/1/91 - 12/31/91	39.06	4,064.8	173.8	4,238.6	4.1%	257.79	2.9%
1/1/92 - 12/31/92	30.34	3,609.3	59.4	3,668.7	1.6%	97.20	1.1%
1/1/93 - 12/31/93	40.83	4,056.9	307.1	4,364.0	7.0%	416.11	4.8%
1/1/94 - 12/31/94	33.03	3,555.8	85.6	3,641.4	2.4%	160.68	1.8%
1/1/95 - 12/31/95	29.87	3,684.8	174.6	3,859.4	4.5%	275.70	3.1%
1/1/96 - 12/31/96	37.50	3,672.2	141.7	3,813.9	3.7%	193.40	2.2%
1/1/97 - 12/31/97	34.18	3,582.0	178.5	3,760.5	4.7%	239.40	2.7%
1/1/98 - 12/31/98	45.05	4,088.6	269.6	4,358.2	6.2%	479.80	5.5%
1/1/99 - 12/31/99	31.38	3,716.3	228.9	3,945.2	5.8%	347.33	4.0%

1/1/00 - 12/31/00	33.98	3,565.5	142.9	3,708.4	3.9%	242.66	2.8%
1/1/01 - 12/31/01	35.51	4,158.0	171.2	4,329.2	4.0%	287.46	3.3%
1/1/02 - 12/31/02	29.23	3,594.0	107.5	3,701.5	2.9%	200.71	2.3%
1/1/03 - 12/31/03	32.63	3,343.4	99.3	3,442.7	2.9%	211.13	2.4%
1/1/04 - 12/31/04	37.31	3,436.5	97.9	3,534.4	2.8%	184.64	2.1%
1/1/05 - 12/31/05	27.09	3,443.8	101.4	3,545.2	2.9%	162.25	1.9%
1/1/06 - 12/31/06	47.08	4,337.0	135.9	4,472.8	2.7%	315.57	3.5%
1/1/07 - 12/31/07	36.06	3,709.0	124.7	3,833.7	3.2%	228.15	2.6%
1/1/08 - 12/31/08	47.45	4,085.2	297.2	4,382.4	6.8%	438.42	5.0%
1/1/09 - 12/31/09	45.10	4,134.5	373.4	4,507.9	8.3%	571.55	6.5%
1/1/10 - 12/31/10	40.11	3,742.3	217.1	3,959.4	5.5%	339.68	3.9%
1/1/11 - 12/31/11	43.13	4,034.3	275.9	4,310.2	6.4%	638.12	7.3%
1/1/12 - 12/31/12	26.16	3,272.5	26.2	3,298.8	0.8%	69.88	0.8%
1/1/13 - 12/31/13	47.18	3,812.2	305.7	4,117.9	7.4%	392.85	4.5%
1/1/14 - 12/31/14	39.04	4,075.9	172.4	4,248.3	4.1%	409.63	4.7%
1/1/15 - 12/31/15	38.93	3,990.7	114.5	4,105.1	2.8%	233.84	2.7%
1/1/16 - 12/31/16	42.28	4,093.5	84.9	4,178.3	2.0%	204.37	2.3%
1/1/17-12/31/17	42.23	3,769.1	197.5	3,967.1	5.0%	283.50	2.4%
1/1/18-12/31/18	44.57	4,007.8	221.6	4,229.4	5.2%	311.40	3.5%
1/1/19-12/31/19	56.22	4,597.8	307.4	4,905.2	6.3%	511.20	5.8%
1/1/20-12/31/20	39.63	3,865.8	177.8	4,043.6	4.4%	245.10	2.8%
1/1/21-12/31/21	29.66	3,499.0	54.5	3,553.5	1.5%	147.80	1.7%
1/1/76 to 12/31/21	1,093.20	172,209.20	9,002.46	181,212.00		17,297.64	
Average Yearly Values	34.16	3,743.68	195.71	3,939.39	4%	376.04	3%

TABLE 3
WET WEATHER DISCHARGES
2021

	TO ST. JOSEPH CREEK CREEK OUTFALL 002		FROM INTERMEDIATE NO. 1 OUTFALL C01		FROM INTERMEDIATES NOS. 2 & 3 OUTFALL 003	
MONTH	MG	HOURS	MG	HOURS	MG	HOURS
Jan	0.00	0.00	0.00	0.00	0.00	0.00
Feb	18.06	34.50	0.00	0.00	0.00	0.00
Mar	9.46	38.70	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00
Jun	28.50	30.50	1.87	5.50	0.63	3.25
Jul	4.40	13.60	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00
Sep	0.00	0.00	0.00	0.00	0.00	0.00
Oct	30.36	48.40	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00
Total	90.79	165.70	1.87	5.50	0.63	3.25

TABLE 4

PERCENT DAYS AT OR ABOVE DESIGN FLOW OF 11.0 MGD

2021					10 YEARS		
MONTH	Days at 11.0 MGD or Above	Influent Avg. MGD for Month	% Days 11.0 MGD or Above	Total Rainfall (in.)	YEAR	% Days above 11.0 MGD	Rainfall (in.)
Jan	6	10.05	19.4	1.04	2012	16	26.16
Feb	7	11.16	25.0	1.01	2013	31	47.18
Mar	21	14.17	67.7	1.74	2014	38	39.04
Apr	0	8.35	0.0	1.39	2015	36	38.93
May	5	9.00	16.1	3.47	2016	35	42.28
Jun	6	9.64	20.0	6.74	2017	30	42.23
Jul	4	8.66	12.9	1.47	2018	35	44.57
Aug	0	6.72	0.0	1.85	2019	50	44.57
Sep	0	6.15	0.0	0.91	2020	30	39.63
Oct	7	9.62	22.6	6.32	2021	18	29.66
Nov	1	7.66	3.3	1.00			
Dec	7	9.31	22.6	2.72			
Total	64	9.21	17.5	29.66			

TABLE 5

WWTC REMAINING CAPACITY
2021

	2016	2017	2018	2019	2020	2021
Hydraulic Capacity						
Three Low Flow Months (MGD), Plant Influent	Sep 7.8 Oct 9.4 Nov 8.6	Sep 6.3 Aug 6.9 Dec 7.4	Jul 7.6 Aug 8.3 Sep 9.1	Aug 8.3 Dec 10.3 Jul 10.5	Aug 6.5 Sep 7.6 Jul 8.2	Sep 6.3 Aug 7.3 Nov 7.9
Average, 3 Low Flow Months (MGD)	8.6	6.9	8.3	9.7	7.4	7.2
Annual Average Flow (PE)	86,000	69,000	83,000	97,000	74,000	72,000
IEPA Permitted Flow - last 2 years (PE)	874	1,195	654	99	422	717
Total Load (PE)	86,874	70,195	83,654	97,099	74,422	72,717
WWTC Hydraulic Capacity (PE)	110,000	110,000	110,000	110,000	110,000	110,000
Remaining Hydraulic Capacity (PE)	23,126	39,805	26,346	12,901	35,578	37,283
% of Hydraulic Capacity Utilized	78.98%	63.81%	76.05%	88.27%	67.66%	66.11%
Organic Capacity						
Influent Loadings (annual avg. lbs/day)						
BOD	17,056	17,380	20,064	16,676	16,854	16,878
TSS	15,857	15,498	17,290	15,427	14,654	14,665
NH3-N	1,317	1,505	1,524	1,506	1,319	1,312
WWTC Organic Capacity (lbs/day)						
BOD	14,120	14,120	14,120	14,120	14,120	14,120
TSS	15,920	15,920	15,920	15,920	15,920	15,920
NH3-N	1,651	1,651	1,651	1,651	1,651	1,651
% of WWTC Organic Capacity Utilized						
BOD	120.79%	123.09%	142.10%	118.10%	119.36%	119.53%
TSS	99.60%	97.35%	108.61%	96.90%	92.05%	92.12%
NH3-N	79.75%	91.16%	92.31%	91.22%	79.89%	79.47%

TABLE 6
DAILY AVERAGE CONCENTRATIONS

YEAR	EFFLUENT DAILY AVG. FLOW - MGD	INFLUENT (MG/L) BOD	TSS	NH3-N	EFFLUENT (MG/L) CBOD	TSS	NH3-N
2012	8.9	147	167	19.6	1.6	0.5	0.1
2013	10.4	119	132	16.1	1.0	0.5	0.1
2014	11.2	127	154	16.0	1.0	0.7	0.3
2015	10.9	130	140	14.7	1.3	0.7	0.2
2016	11.2	189	183	16.1	1.1	0.6	0.3
2017	10.3	213	199	20.3	1.2	0.9	0.4
2018	11.0	230	210	18.7	1.5	1.2	0.6
2019	12.6	169	162	16.4	1.4	1.0	0.3
2020	10.6	213	188	16.4	1.3	0.8	0.6
2021	9.6	225	203	19.7	1.1	0.9	0.3
AVG.	10.7	176	174	17.4	1.3	0.8	0.3

DAILY AVERAGE LOADINGS

YEAR	EFFLUENT DAILY AVG. FLOW - MGD	INFLUENT (LBS/DAY) BOD	TSS	NH3-N	EFFLUENT (LBS/DAY) CBOD	TSS	NH3-N
2012	8.9	10,425	11,895	1,386	119	38	11
2013	10.4	9,699	10,865	1,279	93	55	11
2014	11.2	10,937	13,459	1,337	96	69	26
2015	10.9	11,630	12,028	1,218	115	67	23
2016	11.2	17,056	15,857	1,317	103	58	25
2017	10.3	17,380	15,498	1,505	121	111	40
2018	11.0	20,038	17,312	1,528	169	177	62
2019	12.6	16,676	15,427	1,506	163	124	33
2020	10.6	16,854	14,654	1,319	115	86	66
2021	9.6	16,878	14,665	1,312	97	93	38
AVG.	10.7	14,757	14,166	1,371	119	88	34

TABLE 7

WWTC PERFORMANCE DATA - MONTHLY CONCENTRATIONS

2021

Month	EFFLUENT DAILY AVERAGE FLOW - MGD	PARAMETER	RAW SEWAGE (MG/L)	PRIMARY TREATMENT PRIMARY EFFLUENT (MG/L)	PRIMARY REMOVAL (% OF RAW)	INTERMEDIATE TREATMENT INTERMEDIATE EFFLUENT (MG/L)	INTERMEDIATE REMOVAL (% OF PRI)	TERTIARY TREATMENT TERTIARY EFFLUENT (MG/L)	TERTIARY REMOVAL (% OF INT)	OVERALL REMOVAL (% OF RAW)
Jan 2021	10.40	TSS	198	60	69.71	5.4	91.08	0.4	92.60	99.80
		BOD	280	82	70.66	2.2	97.33	0.74	66.48	99.74
		AMM-N	15.56					0.11		99.29
Feb 2021	10.96	TSS	228	56	75.63	7.4	86.60	1.1	90.16	99.52
		BOD	262	87	66.64	3.4	96.07	1.38	59.85	99.47
		AMM-N	15.18					0.67		95.57
Mar 2021	14.56	TSS	131	42	68.25	6.0	85.53	0.5	90.98	99.59
		BOD	148	64	56.65	2.2	96.53	1.00	55.00	99.32
		AMM-N	12.99					1.58		87.86
Apr 2021	8.69	TSS	195	55	71.92	4.7	91.38	0.6	87.79	99.70
		BOD	204	98	52.17	2.7	97.24	1.13	58.01	99.45
		AMM-N	18.58					0.11		99.40
May 2021	9.86	TSS	204	64	68.47	4.9	92.35	0.6	87.62	99.70
		BOD	220	115	47.71	1.9	98.36	0.91	51.69	99.59
		AMM-N	18.14					0.10		99.45
Jun 2021	10.84	TSS	227	70	69.06	7.8	88.86	2.5	67.85	98.89
		BOD	255	116	54.44	2.7	97.65	1.60	41.28	99.37
		AMM-N	18.56					0.40		97.82
Jul 2021	9.45	TSS	191	48	75.05	6.6	86.06	1.4	78.49	99.25
		BOD	219	90	58.77	2.6	97.09	1.05	60.13	99.52
		AMM-N	21.14					0.47		97.77
Aug 2021	7.27	TSS	211	54	74.41	6.7	87.70	1.1	83.52	99.48
		BOD	196	114	42.03	1.9	98.37	0.96	48.20	99.51
		AMM-N	23.14					0.20		99.16
Sep 2021	6.26	TSS	209	49	76.38	4.8	90.35	0.5	90.35	99.78
		BOD	239	108	54.61	1.6	98.53	0.85	46.50	99.64
		AMM-N	24.67					0.12		99.50
Oct 2021	9.55	TSS	181	50	72.55	6.5	86.95	0.9	85.80	99.49
		BOD	203	80	60.54	1.7	97.86	1.16	32.12	99.43
		AMM-N	17.72					0.18		98.98
Nov 2021	7.91	TSS	232	37	83.95	4.3	88.49	0.4	90.13	99.82
		BOD	237	83	65.13	1.8	97.88	0.93	46.79	99.61
		AMM-N	21.20					0.14		99.34
Dec 2021	9.27	TSS	229	41	82.15	9.8	76.06	0.9	90.58	99.60
		BOD	245	82	66.64	3.1	96.23	1.02	66.97	99.58
		AMM-N	17.94					0.28		98.44
Total Year Avg.	9.59	TSS	203	52	74.30	6.3	88.00	0.9	85.60	99.56
		BOD	225	93	58.62	2.3	97.52	1.05	54.44	99.53
		AMM-N	19.68					0.30		98.46

TABLE 8
WWTC PERFORMANCE DATA 2012-2021

				PRIMARY TREATMENT		INTERMEDIATE TREATMENT		TERTIARY TREATMENT		
			RAW SEWAGE	PRIMARY EFFLUENT	PRIMARY REMOVAL	INTERMEDIATE EFFLUENT	INTERMEDIATE REMOVAL	TERTIARY EFFLUENT	TERTIARY REMOVAL	TOTAL REMOVAL
YEAR	MGD	PARAMETER	(MG/L)	(MG/L)	(% OF RAW)	(MG/L)	(% OF RAW)	(MG/L)	(% OF RAW)	(% OF RAW)
		BOD	147	96	34.7%	3.2	63.1%	1.6	1.1%	98.9%
2012	9.0	TSS	167	68	59.3%	6.5	36.8%	0.5	3.6%	99.7%
		NH3	19.6					0.14		99.3%
		BOD	120	76	36.7%	2.3	61.4%	1.0	1.1%	99.2%
2013	10.4	TSS	133	57	57.1%	6.3	38.1%	0.5	4.4%	99.6%
		NH3	16.1					0.13		99.2%
		BOD	126	75	40.5%	3.1	57.1%	1.0	1.7%	99.2%
2014	11.2	TSS	152	62	59.2%	6.9	36.3%	0.7	4.1%	99.5%
		NH3	15.8					0.28		98.2%
		BOD	130	73	43.8%	2.9	53.9%	1.3	1.2%	99.0%
2015	10.9	TSS	140	49	65.0%	5.6	31.0%	0.7	3.5%	99.5%
		NH3	14.7					0.24		98.4%
		BOD	189	81	57.1%	2.7	41.4%	1.1	0.8%	99.4%
2016	11.2	TSS	183	52	71.6%	5.9	25.2%	0.6	2.9%	99.7%
		NH3	16.0					0.24		98.5%
		BOD	213	94	55.9%	2.8	42.8%	1.2	0.8%	99.4%
2017	10.3	TSS	199	73	63.3%	7.3	33.0%	0.9	3.2%	99.5%
		NH3	20.3					0.40		98.0%
		BOD	227	103	54.6%	3.1	44.0%	1.5	0.7%	99.3%
2018	11.0	TSS	211	81	61.6%	9.3	34.0%	1.2	3.8%	99.4%
		NH3	18.9					0.60		96.8%
		BOD	169	83	50.9%	2.6	47.6%	1.4	0.7%	99.2%
2019	12.6	TSS	162	68	58.0%	6.6	37.9%	1.0	3.5%	99.4%
		NH3	16.4					0.26		98.4%
		BOD	213	89	58.2%	2.5	40.6%	1.3	0.5%	99.4%
2020	10.6	TSS	188	55	70.7%	6.4	25.9%	0.8	3.0%	99.6%
		NH3	16.4					0.62		96.2%
		BOD	225	93	58.7%	2.3	40.3%	1.1	0.5%	99.5%
2021	9.6	TSS	203	52	74.4%	6.3	22.5%	0.9	2.7%	99.6%
		NH3	19.7					0.3		98.5%
		BOD	176	86	51.1%	2.8	47.3%	1.3	0.9%	99.3%
TEN YEAR AVG	10.7	TSS	174	62	64.4%	6.7	31.8%	0.8	3.4%	99.5%
		NH3	17.4					0.32		98.2%

TABLE 9

DIGESTER FEED VOLUMES
2021

MONTH	GALLONS PRIMARY	GALLONS WAS	GALLONS TWAS	GALLONS GREASE	GALLONS TOTAL FEED	GALLONS SUPERNATANT
Jan	933,609	62,390	145,721	222,658	1,364,378	673,852
Feb	968,024	0	152,869	230,127	1,351,020	658,395
Mar	1,189,199	0	244,736	327,966	1,761,901	685,367
Apr	1,087,921	0	263,711	306,478	1,658,110	738,810
May	1,026,692	0	243,222	293,116	1,563,030	665,684
Jun	1,061,515	0	212,786	317,365	1,591,666	619,094
Jul	1,205,184	0	227,475	318,616	1,751,275	893,104
Aug	1,214,280	0	209,266	305,548	1,729,094	781,911
Sep	1,143,075	0	195,833	305,700	1,644,608	815,519
Oct	1,238,791	0	174,509	328,790	1,742,090	952,966
Nov	1,186,701	0	214,931	346,930	1,748,562	956,646
Dec	1,273,813	0	263,774	326,423	1,864,010	909,893
TOTAL	13,528,802	62,390	2,548,833	3,629,717	19,769,742	9,351,240

YEAR	TOTAL GALLONS PRIMARY	TOTAL GALLONS WAS	TOTAL GALLONS TWAS	TOTAL GALLONS GREASE	TOTAL GALLONS FEED	TOTAL GALLONS SUPERNATANT
2008	7,377,548	6,246,500	0	0	13,624,048	5,698,687
2009	8,941,879	6,386,450	0	0	15,328,329	7,063,547
2010	7,889,406	6,844,350	0	11,275	14,745,031	6,888,367
2011	13,375,341	7,732,749	0	123,361	21,231,451	7,954,262
2012	11,401,865	7,301,845	0	1,484,049	20,187,759	9,098,760
2013	10,246,693	7,702,241	0	1,847,140	19,796,074	7,406,897
2014	10,556,827	8,726,360	0	2,637,907	21,921,094	7,669,632
2015	12,856,865	7,917,270	0	2,388,320	23,162,455	10,452,628
2016	16,005,236	9,480,829	0	3,669,377	29,155,442	21,897,719
2017	12,710,097	8,894,754	0	3,479,599	25,084,451	18,908,335
2018	12,790,989	7,632,530	0	4,450,410	24,873,929	9,292,026
2019	12,983,091	9,017,620	0	3,225,805	25,226,516	8,475,445
2020	11,268,548	7,249,980	7,762	2,797,874	21,324,164	8,966,994
2021	13,528,802	62,390	2,548,833	3,629,717	19,769,742	9,351,240

TABLE 10
DIGESTED SLUDGE PUMPING
2021

MONTH	GALLONS TO DRYING BEDS	GALLONS TO LAGOONS	GALLONS TO BELT PRESS	TOTAL GALLONS	TOTAL DRY SOLIDS (LBS)	DRY TONS
Jan	61,320	0	855,581	916,901	156,804	78
Feb	0	0	748,151	748,151	122,572	61
Mar	203,112	0	792,449	995,561	184,196	92
Apr	88,200	116,760	710,500	915,460	185,776	93
May	157,928	0	561,564	719,492	149,396	75
Jun	314,580	124,992	494,289	933,861	200,561	100
Jul	401,220	76,260	546,997	1,024,477	224,811	112
Aug	152,460	0	598,634	751,094	167,530	84
Sep	312,540	58,800	566,333	937,673	220,365	110
Oct	139,860	0	614,029	753,889	173,489	87
Nov	103,740	134,400	780,043	1,018,183	249,169	125
Dec	229,740	0	798,894	1,028,634	239,458	120
TOTAL	2,164,700	511,212	8,067,464	10,743,376	2,274,125	1,137

YEAR	TOTAL TO DRYING BEDS	TOTAL TO LAGOONS	TOTAL TO BELT PRESS	TOTAL GALLONS	TOTAL DRY SOLIDS (LBS)	DRY TONS
2012	2,804,389	987,418	5,167,727	8,959,534	2,004,268	1,002
2013	2,454,875	608,702	6,181,381	9,244,958	2,123,228	1,062
2014	2,111,002	900,582	7,757,099	10,768,684	2,311,647	1,156
2015	1,637,510	708,388	8,575,670	10,921,568	2,390,913	1,195
2016	2,684,707	722,430	5,483,122	8,890,259	1,773,261	1,006
2017	2,876,333	838,116	7,918,682	11,633,131	2,005,847	1,003
2018	2,734,442	498,168	11,821,260	15,053,870	2,410,325	1,206
2019	2,006,624	539,572	12,591,073	15,137,269	2,577,423	1,290
2020	1,840,304	288,600	10,932,096	13,061,000	2,166,043	1,083
2021	2,164,700	511,212	8,067,464	10,743,376	2,274,125	1,137
					Ten Year Avg.	1,114

TABLE 11

CLASS A BIOSOLIDS DISTRIBUTION

YEAR	DELIVERED		CONTRACTOR P/UP		PICK-UP ST.		DGSD USE		TOTAL
	Cu. Yd.	% of Total	Cu. Yd.	% of Total	Cu. Yd.	% of Total	Cu. Yd.	% of Total	
2012	4,812	89%	55	1%	504	9%	60	1%	5,431
2013	2,535	83%	113	4%	395	13%	0	0%	3,043
2014	3,012	87%	72	2%	321	9%	41	1%	3,446
2015	3,185	88%	75	2%	358	10%	7	0%	3,625
2016	2,269	67%	648	19%	451	13%	12	0%	3,380
2017	3,307	83%	322	8%	253	6%	101	10%	3,983
2018	2,414	79%	399	13%	253	8%	6	0%	3,072
2019	1,339	81%	120	7%	176	11%	9	1%	1,644
2020	820	54%	220	14%	464	30%	18	1%	1,522
2021	2,170	86%	47	2%	308	12%	12	0%	2,537
TEN YEAR AVG	2,569	82%	207	7%	348	11%	27	0%	3,151

Table 12
BIOSOLIDS DISPOSAL

Year	Class A Distribution	Class B Hauling	Total	Class A Distribution		Class B Hauling		Total
	Cu. Yd.	Cu. Yd.	Cu. Yd.	Dry Tons	% of Total	Dry Tons	% of Total	Dry Tons
2012	5,431	0	5,431	3,023	100%	0	0%	3,023
2013	3,043	0	3,043	1,757	100%	0	0%	1,757
2014	3,446	0	3,446	2,068	100%	0	0%	2,068
2015	3,625	0	3,625	1,948	100%	0	0%	1,948
2016	3,380	1,018	4,398	1,821	92%	164	8%	1,985
2017	3,983	1,718	5701	1,964	90%	223	10%	2,187
2018	3,072	3,000	6072	1,685	79%	449	21%	2,134
2019	1,644	4,830	6474	938	60%	619	40%	1,557
2020	1,522	5,915	7,437	799	56%	634	44%	1,434
2021	2,537	3,780	6,317	1,405	76%	440	24%	1,845
Ten Year Avg	3,168	2,026	5,194	1,741	87%	422	13%	1,994

TABLE 13

UTILITIES
2021

MONTH	NET ELECTRICITY FROM COMED KW HOURS	ELECTRICITY FROM CHP KW HOURS	NATURAL GAS - CU.FT. WWTC	MSB	HYPO BLDG	5006 WALNUT	CITY WATER GALLONS
Jan	169,968	206,961	44,100	52,700	69,333	29,767	37,151
Feb	53,909	190,235	44,433	71,800	71,333	30,433	15,209
Mar	-68,489	245,494	27,367	32,500	15,433	1,350	19,074
Apr	-102,004	225,022	14,300	11,500	3,100	100	14,436
May	-114,175	238,413	9,200	2,700	1,400	0	154,686
Jun	-2,340	141,270	5,200	1,700	100	0	168,225
Jul	-1,758	168,992	4,533	2,167	0	0	181,689
Aug	-28,714	160,574	4,267	2,133	0	0	160,296
Sep	-84,146	211,355	4,000	2,000	0	0	126,562
Oct	-95,652	208,086	4,900	3,733	300	0	174,533
Nov	-42,254	210,749	29,200	30,167	33,300	18,900	30,793
Dec	-58,518	248,553	36,400	34,100	28,700	23,900	43,384
TOTAL	-374,173	2,455,704	227,900	247,200	223,000	104,450	1,126,039

YEAR	NET ELECTRICITY FROM COMED KW HOURS	ELECTRICITY FROM CHP KW HOURS	NATURAL GAS - CU.FT. WWTC	MSB	HYPO BLDG	5006 WALNUT	CITY WATER GALLONS
2008	6,029,248		2,772,600	360,400	152,600	94,000	1,297,461
2009	5,077,824		1,760,300	267,000	146,500	83,543	1,284,865
2010	4,897,032		1,869,333	304,667	142,167	68,550	1,264,182
2011	5,142,655		1,172,167	222,133	173,033	74,350	1,348,906
2012	4,737,602		708,000	176,700	134,000	62,267	1,257,743
2013	4,710,718		1,852,600	291,100	199,300	150,172	570,319
2014	4,147,605	906,097	556,600	354,300	256,200	112,612	1,360,462
2015	3,088,543	1,618,114	330,725	242,300	243,341	90,150	2,022,867
2016	2,914,349	1,764,802	279,466	242,566	208,867	100,500	1,398,325
2017	2,099,643	2,598,796	206,667	261,833	217,700	95,500	801,133
2018	346,456	3,964,426	219,600	271,867	152,733	134,700	422,321
2019	476,040	3,951,914	219,900	296,700	232,300	136,200	227,990
2020	1,519,580	2,800,854	241,200	213,000	196,700	140,700	930,812
2021	-374,173	2,455,704	227,900	247,200	223,000	104,450	1,126,039

TABLE 14

ELECTRICAL USAGE AND WWTC FLOWS

YEAR	MGD	NET COMED KWHRS PER DAY	TOTAL FLOW MG	TOTAL NET KWHRS	NET KWHRS PER MG
1997	10.3	20,259	3,760.52	7,394,400	1,966
1998	11.9	20,643	4,358.23	7,534,800	1,729
1999	10.8	20,831	3,945.26	7,603,200	1,927
2000	10.1	19,503	3,708.38	7,138,220	1,925
2001	11.9	18,837	4,329.23	6,875,400	1,588
2002	10.1	17,670	3,701.50	6,449,400	1,742
2003	9.4	17,648	3,442.68	6,441,600	1,871
2004	9.6	18,138	3,534.37	6,638,400	1,878
2005	9.7	17,859	3,545.21	6,518,400	1,839
2006	12.3	18,652	4,472.81	6,808,073	1,522
2007	10.5	18,549	3,831.59	6,770,460	1,767
2008	12.0	16,473	4,382.37	6,029,248	1,376
2009	12.4	13,912	4,507.87	5,077,824	1,126
2010	10.8	13,417	3,959.40	4,897,032	1,237
2011	11.8	14,089	4,310.18	5,142,655	1,193
2012	9.0	12,980	3,298.75	4,737,602	1,436
2013	10.4	12,906	4,117.91	4,710,718	1,144
2014	11.6	11,363	4,248.26	4,147,605	976
2015	11.3	8,462	4,105.10	3,088,543	752
2016	11.4	7,963	4,178.33	2,914,349	697
2017	10.3	5,752	3769.61	2,099,643	557
2018	11.0	949	4007.81	346,456	86
2019	12.6	1,304	4597.81	476,040	104
2020	10.6	4,163	3865.84	1,519,580	393
2021	9.6	-1,025	3498.95	-374,173	-107

TABLE 15

DIGESTER GAS UTILIZATION
2021

MONTH	TOTAL PRODUCED Cu. Ft.	CHP Cu. Ft.	DEHUMIDIFIER Cu. Ft.	HEAT EXCHANGERS Cu. Ft.	WASTE (FLARED) Cu. Ft.	HAULED GREASE WASTE Gals.
Jan	3,931,142	2,687,713	501,433	417,828	324,167	222,658
Feb	4,487,413	3,456,915	513,996	375,542	107,809	230,127
Mar	6,339,145	5,981,142	197,876	15,543	144,584	327,966
Apr	6,430,137	5,794,567	461,031	39,865	134,673	306,478
May	7,052,698	6,400,871	544,355	5,618	101,853	293,116
Jun	5,609,643	4,925,485	404,498	14,555	265,106	317,365
Jul	5,097,120	4,937,859	85,223	24,692	49,346	318,616
Aug	5,540,994	5,148,940	242,519	35,537	101,390	305,548
Sep	5,610,167	5,147,685	329,430	22,064	110,988	305,700
Oct	6,055,630	5,898,157	115,249	25,095	17,129	328,790
Nov	5,159,941	4,733,191	203,283	131,966	91,501	346,930
Dec	5,588,742	5,461,698	53,804	65,459	7,781	326,423
TOTAL	66,902,773	60,574,223	3,652,697	1,173,765	1,456,328	3,629,717

YEAR	TOTAL PRODUCED Cu. Ft.	ENGINE/ CHP Cu. Ft.	DEHUMIDIFIER Cu. Ft.	HEAT EXCHANGERS Cu. Ft.	WASTE (FLARED) Cu. Ft.	HAULED GREASE WASTE Gals.
2008	23,937,366		107,766	22,026,830	1,802,770	0
2009	34,050,861		5,261,917	28,702,134	86,810	0
2010	26,703,675		8,959,103	15,979,638	1,764,933	11,275
2011	31,976,383		11,654,942	15,832,873	4,488,568	134,958
2012	54,155,650		12,539,508	21,119,458	20,196,684	1,475,796
2013	49,310,158		13,063,363	27,651,410	8,595,385	1,854,698
2014	65,301,203	16,426,989	11,353,641	26,667,787	17,011,975	2,728,840
2015	68,198,366	31,095,549	5,858,902	20,643,295	21,656,843	2,389,320
2016	84,415,051	34,504,340	11,057,844	10,918,707	27,934,160	3,669,377
2017	65,346,479	37,324,484	4,074,161	9,737,050	14,210,784	3,480,299
2018	82,004,810	59,259,962	4,877,385	2,558,378	15,309,085	4,450,410
2019	82,452,685	57,564,552	8,000,079	1,775,449	15,112,605	3,225,805
2020	60,068,754	37,039,990	6,140,934	2,033,589	14,854,243	2,797,874
2021	66,902,773	60,574,223	3,652,697	1,173,765	1,456,328	3,629,717

TABLE 16

CHEMICALS
2021

	LIQUID DISINFECTANT USE			LIQUID DISINFECTANT SOURCE			SLUDGE TREATMENT	
	0.8% SODIUM HYPOCHLORITE TERTIARY	0.8% SODIUM HYPOCHLORITE EXCESS	40% SODIUM BISULFITE TERTIARY	SOLAR SALT DELIVERY	0.8% SODIUM HYPOCHLORITE FROM OSEC	16% SODIUM HYPOCHLORITE DELIVERED	DEWATERING POLYMERS	THICKENING POLYMERS
MONTH	Gallons	Gallons	Gallons	Tons	Gallons	Gallons	lbs.	lbs.
Jan	0	79	0	25	18,480	0	3,600	1,125
Feb	13,371	14,783	251	25	448	4,500	1,800	1,800
Mar	22,542	12,780	395	0	1,680	4,000	1,800	1,800
Apr	1,128	27	17	0	56	0	1,800	2,250
May	116,600	4,522	1,083	0	125,384	0	1,800	1,800
Jun	132,425	27,317	658	25	133,784	0	1,800	1,800
Jul	132,024	5,535	1,119	25	132,972	0	3,600	2,250
Aug	126,638	814	756	25	121,688	0	3,600	1,800
Sep	94,590	214	1,725	0	84,000	0	1,800	1,800
Oct	127,834	18,978	744	25	130,424	0	1,800	1,800
Nov	891	3,034	9	0	10,976	0	1,800	1,800
Dec	12,237	2,619	542	0	24,192	0	1,800	2,250
TOTAL	780,279	90,701	7,299	150	784,084	8,500	27,000	22,275

TABLE 17
CHEMICAL USAGE

SODIUM HYPOCHLORITE USAGE

YEAR	TERTIARY lbs.	Flow MG	lbs./MG	EXCESS lbs.	FLOW MG	lbs./MG
2012	54,197	3,272.5	16.6	1,936	26.2	73.9
2013	47,333	3,812.2	12.4	9,084	305.7	29.7
2014	57,131	4,075.9	14.0	12,448	172.4	72.2
2015	47,388	3,990.7	11.9	8,294	114.5	72.4
2016	47,954	4,093.5	11.7	13,733	84.9	161.8
2017	36,336	3,769.6	9.6	12,200	193.6	63.0
2018	39,153	4,007.8	9.8	10,984	221.6	49.6
2019	48,154	4,597.8	10.5	17,002	307.4	55.3
2020	51,073	3,865.8	13.2	8,600	177.8	48.4
2021	56,632	3,499.0	16.2	6,802	54.5	124.7

SODIUM BISULFITE

SALT AND HYPOCHLORITE SOURCE

YEAR	TERTIARY lbs.	FLOW MG	lbs./MG	SOLAR SALT DELIVERY TONS	0.8% SODIUM HYPOCHLORITE FROM OSEC Gals.	16% SODIUM HYPOCHLORITE DELIVERED Gals.
2012	14,780	3,272.5	4.5	128	949,480	3,487
2013	16,679	3,812.2	4.4	43	262,360	45,300
2014	14,742	4,075.9	3.6	144	1,035,552	9,600
2015	25,048	3,990.7	6.3	144	859,180	4,420
2016	19,432	4,093.5	4.7	189	1,012,424	3,956
2017	22,167	3,769.6	5.9	0	115,416	49,500
2018	23,824	4,007.8	5.9	0	0	58,000
2019	30,079	4,597.8	6.5	0	0	72,500
2020	26,901	3,865.8	7.0	125	707,168	9,000
2021	32,508	3,499.0	9.3	150	784,084	8,500

POLYMERS DEWATERING

YEAR	POLYMERS lbs.	DRY SOLIDS lbs.	lbs. Solids per Polymer lb.
2012	13,050	955,284	73.2
2013	14,850	1,276,521	86.0
2014	14,850	1,514,033	102.0
2015	16,200	1,485,811	91.7
2016	10,800	992,027	91.9
2017	16,200	1,266,862	91.9
2018	30,600	2,410,325	78.8
2019	36,000	2,577,421	71.6
2020	29,700	2,166,044	72.9
2021	27,000	2,274,125	84.2

POLYMERS THICKENING

YEAR	POLYMERS lbs.	DRY SOLIDS lbs.	lbs. Solids per Polymer lb
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	0	0	0
2019	0	0	0
2020	0	0	0
2021	22,275	1,190,702	53.5

TABLE 18

NUTRIENTS

2021

Phosphorus

	Influent Concentration	Influent Load	Effluent Concentration	Effluent Load	% Removal of Load
	mg/L	lbs/day	mg/L	mg/L	%
January	5.35	430	2.61	191	56
February	5.95	455	3.14	216	53
March	4.03	424	1.72	191	55
April	6.07	414	3.21	227	45
May	5.17	369	2.91	226	39
June	6.09	476	3.34	294	38
July	5.48	335	4.21	281	16
August	6.17	343	4.25	274	20
September	6.32	341	4.56	247	28
October	5.06	411	3.60	294	29
November	6.58	398	3.40	210	47
December	6.35	462	3.01	210	54
Min	4.03	335	1.72	191	16
Max	6.58	476	4.56	294	56
Annual Total		147,755		86,999	
Avg	5.72	405	3.33	238	40

Nitrogen

	Influent Concentration	Influent Load	Effluent Concentration	Effluent Load	% Removal of Load
	mg/L	lbs/day	mg/L	lbs/day	%
January	34.90	2,711	16.20	1,308	52
February	39.80	2,724	18.30	1,253	54
March	22.30	2,675	11.60	1,441	46
April	31.80	2,191	20.80	1,480	32
May	18.10	1,514	9.80	881	42
June	39.40	2,366	19.40	1,388	41
July	30.90	2,129	17.00	1,335	37
August	42.10	2,810	22.20	1,579	44
September	43.00	2,126	17.80	898	58
October	33.70	2,840	18.80	1,586	44
November	42.30	2,499	19.90	1,228	51
December	39.80	3,082	12.40	954	69
Min	18.10	1,514	9.80	881	32
Max	43.00	3,082	22.20	1,586	69
Annual Total		902,410		466,373	
Avg	34.84	2,472	17.02	1,278	48

TABLE 19
NUTRIENTS
ANNUAL AVERAGES SINCE 2015

Phosphorus

	Avg Influent Concentration mg/L	Avg Influent Load lbs/day	Avg Effluent Concentration mg/L	Avg Effluent Load lbs/day	% Removal Load %
2015	4.37	352	2.54	206	39
2016	5.44	46	2.58	219	53
2017	5.62	454	2.99	235	47
2018	5.43	448	2.99	235	53
2019	4.68	434	2.99	235	53
2020	5.33	418	2.9	228	45
2021	5.72	405	3.33	238	40
Average	5.23	365	2.90	228	47

Nitrogen

	Avg Influent Concentration mg/L	Avg Influent Load lbs/day	Avg Effluent Concentration mg/L	Avg Effluent Load lbs/day	% Removal Load %
2015	31.8	2,853	17.98	1,620	43
2016	36.18	2,602	15.96	1,155	56
2017	38.52	3,128	16.04	1,318	57
2018	35	2,791	14.38	1,181	59
2019	28.88	2,527	13.2	1,189	53
2020	33.27	2,632	18.08	1,474	42
2021	34.84	2,472	17.02	1,278	48
Average	34.07	2,715	16.09	1,316	51

DOWNERS GROVE SANITARY DISTRICT
M E M O

DATE: January 07, 2022

TO: Amy R. Underwood
General Manager

FROM: Keith Shaffner
Sewer Construction Supervisor

RE: Sewer Construction Year End Summary – 2021

The following is a brief summary of the construction activities that occurred in the past year:

Permits: The year 2021 saw a 37% increase in single family permits issued over the prior year (Exhibit A). Single family tear downs and rebuilds continue to be a significant factor in new home construction within the District (Exhibit B). Also attached for reference is the Annual Summary of Sewer Permits issued for the last five years 2017–2021 (Exhibit C).

Annexations: Six parcels totaling of 2.74 acres were added to the Sanitary District from the 2021 annexations. Trunk Sewer Service Charges (TSSC) collected from annexations totaled $13,132.58. Please find attached a summary of the parcels annexed into the Sanitary District in 2021 and a comparison of the last five years of annexations (Exhibit D).

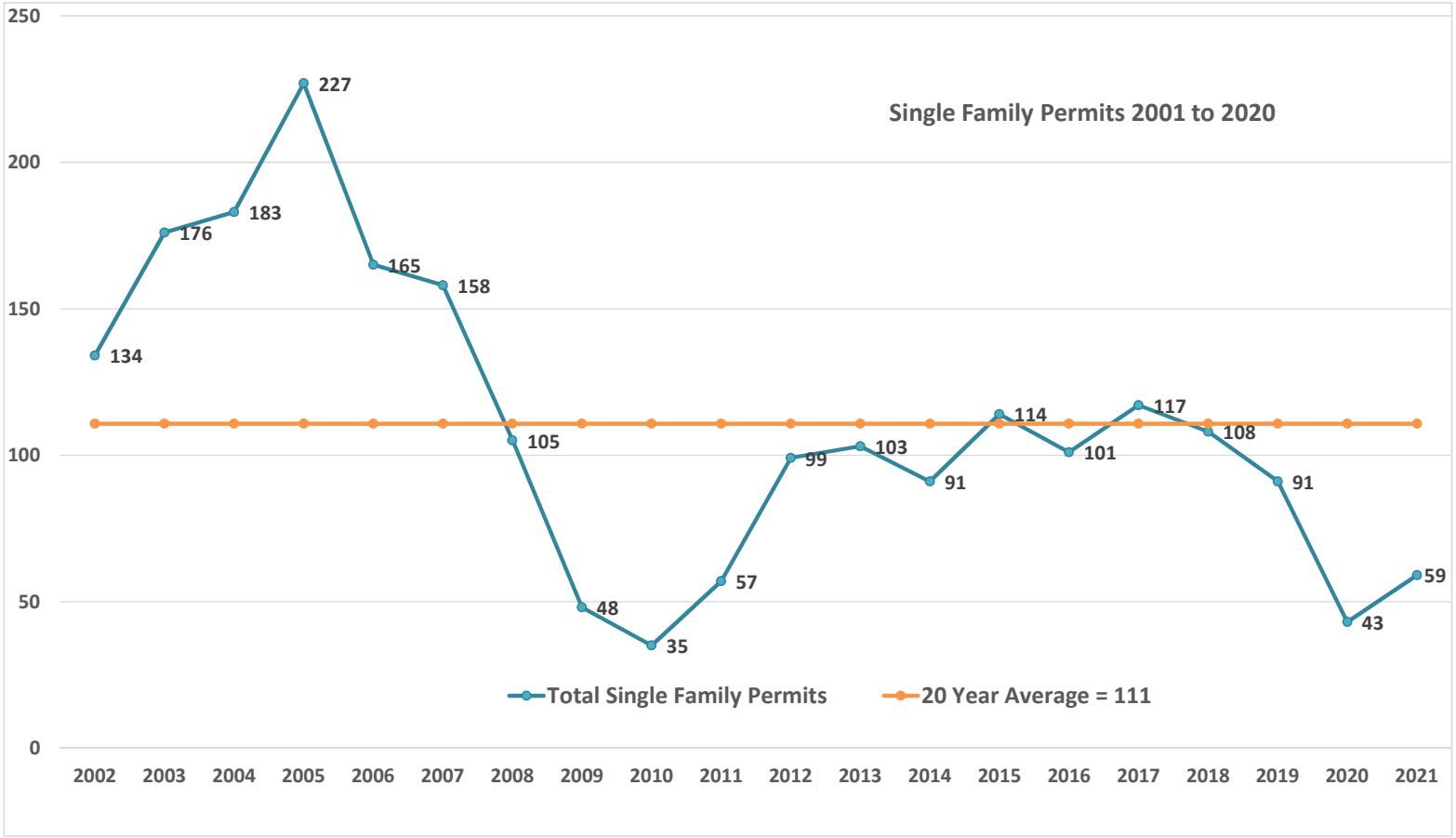
Board of Local Improvements: There were 5 BOLI meetings held in 2021, and they reviewed 8 proposed developments. 7 of the projects have progressed forward to review with the Sanitary District.

Illinois EPA Permits: IEPA issued construction permits for 5 new projects in the District, with an estimated wastewater flow totaling 373 PE (37,300 gallons per day).

Public Sewer Main Construction: There was one new public sewer main project constructed in 2021, which added 135 lineal feet of sewer main and 1 manhole.

CC: WDVB, AES, PWC, KJR, RTJ, MJS, RPS & MGP

Exhibit A



SINGLE FAMILY PERMITS AVERAGES	
5 YEAR AVERAGE (2017-2021)	84
10 YEAR AVERAGE (2012-2021)	93
20 YEAR AVERAGE (2002-2021)	111

EXHIBIT B

SINGLE FAMILY TEAR-DOWNS & RE-BUILDS

YEAR	TOTAL SF PERMITS	TEAR DOWN RE-BUILDS	% RE-BUILDS
2002	134	51	38.06%
2003	176	94	53.41%
2004	183	115	62.84%
2005	227	136	59.91%
2006	165	99	60.00%
2007	158	63	39.87%
2008	105	27	25.71%
2009	48	24	50.00%
2010	35	19	54.29%
2011	57	32	56.14%
2012	99	48	48.48%
2013	103	56	54.37%
2014	91	62	68.13%
2015	114	58	50.88%
2016	101	57	56.44%
2017	117	70	59.83%
2018	108	54	50.00%
2019	91	44	48.35%
2020	43	28	65.12%
2021	59	48	81.36%
20-YEAR AVE	**111**	**59**	**53.52%**

20 YEAR SUMMARY:

	SF PERMITS	RE-BUILDS	% RE-BUILDS
TOTAL	**2214**	**1185**	**53.52%**

EXHIBIT C DOWNERS GROVE SANITARY DISTRICT - SUMMARY OF SEWER PERMITS ISSUED

YEAR	PERMIT TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
2021	SINGLE FAMILY	5	5	10	3	5	5	2	2	6	6	7	3	59
2021	MULTIPLE FAMILY	0	0	1	0	0	0	0	1	0	0	0	0	2
2021	COMMERCIAL	0	0	0	1	0	1	1	2	2	0	0	1	8
2021	REPAIR	3	0	1	0	2	1	3	0	1	3	1	2	17
2021	DISCONNECT	3	3	2	3	5	5	2	2	1	6	6	3	41
2021	TOTAL	11	8	14	7	12	12	8	7	10	15	14	9	127
2020	SINGLE FAMILY	4	6	0	4	3	5	4	3	4	3	6	1	43
2020	MULTIPLE FAMILY	0	0	0	0	0	0	0	1	0	0	0	0	1
2020	COMMERCIAL	1	1	2	0	3	2	0	0	0	0	0	0	9
2020	REPAIR	1	0	1	0	0	0	0	2	4	1	1	0	10
2020	DISCONNECT	7	1	0	2	4	1	3	5	4	3	5	0	35
2020	TOTAL	13	8	3	6	10	8	7	11	12	7	12	1	98
2019	SINGLE FAMILY	7	5	8	6	19	12	7	9	4	7	2	5	91
2019	MULTIPLE FAMILY	0	0	0	0	0	0	0	0	0	0	0	0	0
2019	COMMERCIAL	0	0	2	2	3	0	1	1	3	0	1	1	14
2019	REPAIR	0	1	1	0	0	2	1	0	0	0	1	2	8
2019	DISCONNECT	2	2	7	4	4	3	6	8	0	3	11	0	50
2019	TOTAL	9	8	18	12	26	17	15	18	7	10	15	8	163
2018	SINGLE FAMILY	9	4	6	4	10	16	7	25	12	7	2	6	108
2018	MULTIPLE FAMILY	0	0	0	0	0	0	0	0	0	0	0	0	0
2018	COMMERCIAL	2	4	1	2	2	1	0	1	0	2	0	0	15
2018	REPAIR	1	0	0	2	1	1	2	1	0	2	0	1	11
2018	DISCONNECT	3	3	5	11	5	4	3	5	6	3	3	3	54
2018	TOTAL	15	11	12	19	18	22	12	32	18	14	5	10	188
2017	SINGLE FAMILY	12	10	9	9	8	7	6	5	10	9	21	11	117
2017	MULTIPLE FAMILY	0	0	1	0	0	0	0	0	0	0	0	0	1
2017	COMMERCIAL	1	2	1	0	1	2	1	0	3	2	3	0	16
2017	REPAIR	0	0	0	1	0	0	0	2	0	1	0	0	4
2017	DISCONNECT	4	5	10	8	6	7	4	11	6	4	4	2	71
2017	TOTAL	17	17	21	18	15	16	11	18	19	16	28	13	209

Exhibit D 2021 Annexations

LOCATION	NAME	DATE	TSSC	PAID	PERMIT	ACRES	NOTES
3928 VENARD	Vaccarello	01/27/21	$3,237.83	01/27/21	2021-011	0.75	
6000 WOODWARD	Bekstas	01/29/21	$2,202.12	01/29/21	2021-016	0.51	
4915 DRENDEL	Nagel	05/14/21	$1,540.00	05/14/21	2021-051	0.21	
4529 CROSS	Constantine	06/03/21	$2,412.63	06/03/21	2021-057	0.55	
1146 67TH	Chuang	06/08/21	$1,540.00	06/08/21	2020-073	0.22	
6010 SPRINGSIDE	Mueller	06/28/21	$2,200.00	06/28/21	2021-066	0.50	
Totals			**$13,132.58**			**2.74**	

Annexations Five Year Comparison

Year	2017	2018	2019	2020	2021
Number of Annexations	13	5	7	4	6
TSSC	$96,422.00	$15,041.64	$21,023.88	$8,887.00	$13,132.58
Acres	14.41	11.02	4.84	1.74	2.74

DOWNERS GROVE SANITARY DISTRICT
MEMO

TO: Amy Underwood
General Manager

FROM: Robert Swirsky
Sewer System Maintenance Supervisor

DATE: January 12, 2022

RE: Review of Operations – Collection System Performance for 2021

I have enclosed copies of the following items for your review:

1) Annual Sewer Backup Comparisons for 1995 through 2021
2) Manhole Overflow and Sewer Backup Summary by Event
3) Manhole Overflow and Sewer Backup Summary by Year
4) 2021 Public Sewer Blockages
5) 2021 Building Service Blockages
6) Mainline PACP TV Status Map
7) Current I&I Ranking of Flow Metering Basins

CC: WDVB, AES, PWC, KJR, RTJ, MJS, MGP

DOWNERS GROVE SANITARY DISTRICT ANNUAL SEWER BACK UP COMPARISONS

REPORTING YEAR	TOTAL BACK UPS FOR YEAR ***	PUBLIC SEWER BLOCKAGES	BUILDING SERVICE PROBLEMS	HEAVY RAIN SURCHARGE ***	LIFT STATION FAILURE
1995	164	26	136	2	0
1996	765	23	199	542	1
1997	632	24	114	494	0
1998	209	32	137	40	0
1999	227	31	191	5	0
2000	241	29	205	7	0
2001	216	22	132	61	0
2002	190	35	155	0	0
2003	207	27	180	0	0
2004	213	18	193	2	0
2005	328	21	300	7	0
2006	373	13	330	30	0
2007	286	11	275	0	0
2008	418	17	312	101	0
2009	312	19	242	59	0
2010	305	11	285	9	0
2011	280	15	262	3	0
2012	273	14	258	1	0
2013	474	13	322	139	0
2014	311	21	281	9	0
2015	238	11	227	0	0
2016	203	11	188	4	0
2017	242	9	200	33	0
2018	202	8	183	11	0
2019	199	2	192	5	0
2020	263	8	219	36	0
2021	270	12	258	0	0
20 year AVE	279	15	243	22	0
5 year AVE	235	8	210	17	0

*** TOTALS FOR YEARS 1996 & 1997 INCLUDES DATA FROM SURVEY RESPONSES

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	2/11/2021	1/22/2021	5/17/2020	11/1/2019	10/26/2019	9/15/2019
PRECIP FOR 24 Hrs	N/A	N/A	3.13	N/A	2.65	0.79
PRECIP FOR 3 PREVIOUS DAYS	Dry Weather Overflow	Dry Weather Overflow	2.73	Dry Weather Overflow	2.66	Mainline Blockage Dry Weather Overflow
10- day rainfall			6.23	4.39	2.91	
PEAK WWTC FLOW			116.5		86	
# OF OVERFLOWS	1	1	9	1	5	1
MH LOCATIONS	LA Fitness Inspection MH	N1-025-6	1M-050 2D-001 1H-005 1H-004 1K-049 G4-007 2A-011 G1-012	N1-025-6	1M-050 2D-001 1H-005 1H-004 1K-049	1K-046
# OF BACKUPS			36		2	
			5604 Carpenter		5501 Farview Ave	
			4013 Elm		115 S. Grant St	
			5543 Wilcox			
			5713 Main			
			4018 N. Adams			
			471 7Main			
			1105 Sixty Second			
			5501 Fairview			
			4524 Prince			
			1660 Bolson			
			145 N. Hudson			
			5615 Brookbank			
			4717 Main			
			5543 Wilcox			
			4518 Prince			
			643 Maple			
			242 Fifty Fifth			
			34 N. Adams			
			420 N. Washington			
			18 N. Cass			
			5408 Main			
			1106 Sixtieth			
			4725 Linscott			
			4721 Highland			
			4031 N. Grant			
			4906 Edward			
			5416 Cumnor			
			6025 Woodward			
			324 Fifty Fifth			
			131 N. Hudson			
			3944 Main			
			951 Valley View			
			1424 Sixty Second			
			301 Fifty Fifth Place			
			4524 Prince			
			4417 Highland			

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	7/18/2019	5/27/2019	4/30/2019	4/29/2019	11/1/2018	2/20/2018
PRECIP FOR 24 Hrs	1.99	1.72	1.51	2.2	N/A	2.3
PRECIP FOR 3 PREVIOUS DAYS	0.86	0.3	2.65	0.56	Dry Weather Overflow	0.64
10- day rainfall	3.18	3.62	4.37	2.86		3.23
PEAK WWTC FLOW	73.84	75.3	88.12	85.59		105.33
# OF OVERFLOWS	1	2	3	1	1	10
MH LOCATIONS	2D-001	2D-001 1K-049	2D-001 1M-050 1K-049	2D-001	W1-076	1M-050 2D-001 2C-089-1 1H-012 1H-005 1H-004 1K-049 2C-115 G1-011 G1-012

# OF BACKUPS	21
	212 S. Lincoln 4133 Saratoga 5104 DeWitt 4019 N. Washington 4804 Highland 752 Chicago 18 N. Cass 504 N. Washington 4618 Roslyn 1 N. Cumnor 5730 Main 4924 Washington 115 S. Grant 4618 Roslyn 131 N. Hudson 828 Chicago 4904 Puffer 4540 Highland 3928 N. Cass 3924 Forest 326 Gierz

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	1/26/2018	11/27/2017	10/14/2017	5/10/2017	4/29/2017	4/27/2017
PRECIP FOR 24 Hrs	N/A	N/A	6.88	1.3	2.38	N/A
PRECIP FOR 3 PREVIOUS DAYS	Dry Weather Overflow Liner Installation	Dry Weather Overflow Liner Installation	1.21	0.52	0.54	Dry Weather Overflow
10- day rainfall			9.55	2.49	3	
PEAK WWTC FLOW			105.91	73.3	69.34	
# OF OVERFLOWS	1	1	15	2	2	
MH LOCATIONS	3A-014	3A-030	L1-109 1H-012 1H-004 1H-005 1K-049 2A-011 2A-011-A 2D-001 1M-034 1M-049 G1-012 H1-004 H1-005 H4-004 H4-088	1M-049 1K-049	1M-049 2D-001	2A-072
# OF BACKUPS			38	3		
			1122 60th 115 S Grant 1450 Palmer 1917 B Curtiss 1928 Curtiss 326 Gierz 3902 S Adams 4014 N Grant 4015 N Washington 4018 N Adams 4023 N Grant 4112 N Adams 4132 Roslyn 4507 Fairview 4825 Pershing 4943 Highland 5143 Grand 5501 Fairview 5713 Main 5740 Plymouth 6941 Lyman 7001 Foster 7020 Foster 733 Chicago 752 Chicago 821 Valley View 831 Valley View 951 Valley View 820 Valley View 4915 Washington 6909 Galway 4939 Wallbank 4618 Roslyn 1418 62nd 4819 Pershing 4611 Fairview 238 Chicago 3926 N. Lincoln	112 N. Lincoln 138 N. Lincoln 305 N. Washington		

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	3/30/2017	3/17/2017	3/1/2017	8/27/2016	7/29/2016	3/24/2016	8/29/2015
PRECIP FOR 24 Hrs	1.83	N/A	1.69	1.1	1.47	N/A	N/A
PRECIP FOR 3 PREVIOUS DAYS	0.73	Dry Weather Overflow	0	0.47	2.27	Dry Weather Overflow	Dry Weather Overflow
10- day rainfall	2.88		2.12	2.68	5.81		
PEAK WWTC FLOW	70.78		88.54	64.07	68.33		
# OF OVERFLOWS	2	1	2	1	2	1	1
MH LOCATIONS	1M-049 2D-001	B1-038-1	1M-049 2D-001	1M-049	1M-049 2D-001	2F-010 2F-011	2G-037
# OF BACKUPS	2			2		0	0
	1165 Barberry 122 S. Cass			115 S. Grant 130 S. Lincoln			

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	6/15/2015	5/26/2015	11/28/2014	10/18/2014	8/22/2014	6/30/2014	5/20/2014
PRECIP FOR 24 Hrs	1.5	0.57	N/A	N/A	1.52	2.04	1.47
PRECIP FOR 3 PREVIOUS DAYS	1.93	0.31			2.15	0.07	0
		Dry Weather Overflow	Dry Weather Overflow	Dry Weather Overflow			
10- day rainfall	4	0.88			3.81	2.97	3.1
PEAK WWTC FLOW	88.4				85.66	71.9	67.28
# OF OVERFLOWS	2	1	1	1	3	1	2
MH LOCATIONS	1M-049 2D-001	1A-021	H5-021-90	1H-012	1M-049 1M-050 2D-001	1M-049	1M-049 2D-001
# OF BACKUPS	2		1	0	8	1	0
	1165 Barberry 3524 Saratoga		1230 75th		4129 Washington 115 S. Grant 117 S. Grant 5604 Carpenter 200 S. Lincoln 5436 Cumnor 1928 Curtiss 122 S. Lincoln	1129 Barberry	

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	11/22/2013	10/31/2013	4/18/2013	3/10/2013	8/26/2012	2/21/2012
PRECIP FOR 24 Hrs	N/A	2.46	4.67	1.02	3.4	N/A
PRECIP FOR 3 PREVIOUS DAYS	Dry Weather Overflow	0.65	2.59	0.4	0	Dry Weather Overflow
10- day rainfall		3.2	8.61	1.52	3.7	
PEAK WWTC FLOW		75.19	116	74.79	73.26	N/A
# OF OVERFLOWS	1	1	?	1	0	1
MH LOCATIONS	FMCL-001	1M-049	1M-049 H4-088 2C-089-1 G1-012 1H-005 2D-001 1K-049 2A-011-A 2E-023 unable to verify all locations due to surface flooding	1M-049		1H-012
# OF BACKUPS			269	1	1	1
			124 N. Lincoln 5505 Dunham 4717 Main 5505 Fairview 1928 Curtiss 4936 Francisco 17 W. Naperville 6021 Grand 4832 Saratoga 6035 Dunham 3840 Florence 5320 Benton 5300 Blodgett 6941 Lyman 4535 Elm 130 N. Williams 6121 Carpenter 5236 Fairmount 917 Blanchard 301 55th 4915 Washington 3944 Main 1130 Franklin 4823 Prince 3946 Elm 1925 Prairie 3524 Saratoga 123 N. Washington 1141 Valley View 4710 Saratoga 200 S. Grant 4945 Highland 5235 Fairmount 428 S. Cass 5310 Lyman 1424 62nd 6133 Dunham 2045 Prairie 2035 Prairie	117 S. Grant	1129 Barberry	310 Otis

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	6/9/2011	5/25/2011	3/5/2011	1/31/2011	12/31/2010	12/14/2010	8/3/2010
PRECIP FOR 24 Hrs	2.49	N/A	N/A	N/A	0.89	N/A	1.65
PRECIP FOR 3 PREVIOUS DAYS	0.27	Dry Weather Overflow	Dry Weather Overflow	Dry Weather Overflow	0.55	Dry Weather Overflow	1
10- day rainfall	2.95				1.46		4.65
PEAK WWTC FLOW	77.56	N/A	N/A	N/A	52.38	N/A	73.52
# OF OVERFLOWS	6	1	2	1	0	1	1
MH LOCATIONS	1M-049 H1-003* H1-004* H1-005* 2D-001 1K-049 * Lift Station Failure	V3-049	V-4-112 V-4-060	1H-055		L1-051	1M-049
# OF BACKUPS	3	2		1	1		
	5701 Webster 4111 Roslyn 1165 Barberry	3840 Florence 3831 Florence		405 Grant	1129 Barberry		

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	7/24/2010	6/23/2010	6/2/2010	5/10/2010
PRECIP FOR 24 Hrs	2.86	0.97	1.95	N/A
PRECIP FOR 3 PREVIOUS DAYS	0.79	0.59	1.26	
10- day rainfall	3.65	2.07	3.61	Dry Weather Overflow
PEAK WWTC FLOW	88	71	92.98	N/A
# OF OVERFLOWS	6	1	5	1
MH LOCATIONS	1M-049 1H-012 1H-005 1H-004 1K-049 G4-004-A	1M-049	1M-049 2D-001 1K-046 2A-011-A G1-012	1D-062
# OF BACKUPS	4	0	4	
	4032 N. Grant 4020 Liberty 3941 Main 4031 N. Grant		5533 Washington 335 S. Park 115 S. Grant 109 N. Williams	

MANHOLE OVERFLOW AND SEWER BACKUP HISTORY -

DOWNERS GROVE SANITARY DISTRICT - OVERFLOW BACKUP HISTORY

DATE OF EVENT	10/30/2009	8/28/2009	3/8/2009	2/26/2009
PRECIP FOR 24 Hrs	1.32	N/A	2.21	2.46
PRECIP FOR 3 PREVIOUS DAYS	0.78	DRY WEATHER OVERFLOW	1.34	0.13
10- day rainfall	4.81		6.04	3.02
PEAK WWTC FLOW	71.05	N/A	83.04	92.57
# OF OVERFLOWS	2	1	12	6
MH LOCATIONS	1M-049 G1-012	H3-002-2	1M-049 H1-004 H1-005 1H-005 1K-049 G1-012 G1-015 2A-011-A 1M-056-A G4-004-A C1-009 H6-050	1M-049 H1-004 H1-005 1H-005 1K-049 L1-001
# OF BACKUPS	2	0	39	18
	4727 Fairview 4715 Fairview		1922 A Curtiss 1224 Brookside 917 Chicago 100 Chicago 221 Chicago 1924 Curtiss 1926 Curtiss 4132 Elm 5729 Fairmount 1441 Golden Bell 301 Indianapolis 231 James 235 James 5548 Lyman 5536 Lyman 5549 Lyman 5544 Lyman 4009 N. Washington 123N. Washington 420N. Washington 4015N. Washington 310Ogden 4620Pershing 4604Pershing 1725Prairie 4151Roslyn 117S. Grant 335S. Park 1125Sixty Second PL 1020Sixty Second PL 743Sixty Seventh St 34W. Fifty Fifth PL 38W. Fifty Fifth PL 29W. Fifty Fifth St 5701Webster 5704Webster 116West End 4119Williams 4636Wilson	616 Rogers 125 Eight 212 Lincoln 335 S. Park 101 N. Park 430 Rogers 100 Chicago 1240 Gilbert 221 Chicago 521 N. Park 307 N. Washington 420 N. Washington 1125 Barneswood 115 S. Grant 5436 Cumnor 1924 Curtiss 4004 Washington 200 W. Chicago

YEAR	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	TOTALS	AVERAGES
NUMBER OF EVENTS	1	1	7	3	6	4	3	8	4	2	4	7	4	9	4	9	5	7	4	11	2	4	11	8	2	3	6	4	5	2	3	4	0	155	5.0
WET WEATHER		1	5	1	5	3	1	6	3	1	1	5	3	6	3	7	3	5	3	3	2	1	8	6	2	3	6	4	5	2	3	4	0	110	3.5
DRY WEATHER	2		2	2	3	1	2	2	1	1	3	2	1	3	1	2	2	2	1	8	0	3	3	2	0	0	0	0	0	0	0	0	0	47	1.5
TOTAL PRECIPITATION	29.66	39.63	56.22	44.57	42.23	42.28	38.93	39.04	47.21	26.16	43.13	40.11	45.1	47.45	36.06	47.08	26.1	37.31	32.63	29.23	33.98	33.98	31.38	45.05	34.18	37.50	29.87	33.03	40.83	30.34	39.06	43.12	25.19		37.81
MANHOLE OVERFLOWS																																			
1M-050		1	2	1			1																											5	
1-M-49					5	2	1	3	3		1	4	3	6	3	7	2	5	3	3	2	1	8	6	2	3	5	2	5	2	3	4		94	2.85
2-C-89-1				1				1													1	1			1	3	5	1	5	2	2	2		25	0.83
1-H-5		1	1	1	1			1			1	1	2	2		1				1	2	1	2	2	1	2			2		1	2		27	0.90
1-K-49		1	3	1	2			1		1		1	2	2		1				1	1	1	3	1	1	3			2		2	1		31	1.03
1-H-4		1	1	1	1							1		1		1				1	1	1	2	1	1	2	2		1			2		21	0.70
H-1-4					1					1			2	5		1	1	1	2	1	1		1	2	1	2	2				1	2		27	0.90
1-H-12				1	1				1			1		1		1		1		1	1	1	4	2	1				2					19	0.63
2-C-115				1										1											1	1	2		2	2	2	2		14	0.47
2-D-1		1	5	1	4	1	1	2	1		1	1		1	2	5	1	5		2	2	1	2	2	1									42	1.40
G-4-4A												1	1	1							2				1	2	1							9	0.30
1-G-14																									1	1			1			2		5	0.17
1-H-36																										1					1	2		4	0.13
2-C-80																								3	1									4	0.13
H-1-3											1					1					1									1	2		6	0.32
H-4-4					1																1			1	1	1							5	0.26
H-4-6														3							1			1	1	1							7	0.37
H-6-1														1										2	1	1							5	0.26
1-A-128																									1	1						1		3	0.16
1-L-19																									1	1						1		3	0.16
1-N-67																									1	2								3	0.16
2-A-11A					1			1				1		2							1				1	1								8	0.42
2-F-28A																									1						1	1		3	0.16
2-G-16																									1							2		3	0.16
B-1-23 (DWO)																				2				1										3	0.16
H-4-5																					1			1	1									3	0.16
H-4-7														1										1	1	1								4	0.21
H-4-88		1			1			1						3										1	1	1								8	0.42
1-B-25 (DWO)																				2														2	0.11
1-B-25B (DWO)																				2														2	0.11
1-B-93																									1							1		2	0.11
2-A-18 (DWO)																						1	1											2	0.11
2-A-19 (DWO)																						1	1											2	0.11
2-A-20 (DWO)																						1	1											2	0.11
2-D-40-1																												1	1					2	0.11
2-F-10						1																	1		1									3	0.16
G-1-12		1		1	1			1				1	1	1											1	1								9	0.30
G-5-5																																2		2	0.07
H-1-5					1						1		2	5	1		1	1							1	1								14	0.47
H-4-3																							1	1										2	0.11
H-6-2																									1	1								2	0.11
L-1-109					1																					1					1			3	0.16
VENARD PS FM																		1		1		1												3	0.16
1-A-21 (DWO)							1													1														2	0.11
1-B-63																								1										1	0.05
1-B-65																								1										1	0.05
1-C-65																															1			1	0.05
1-D-25-1 (DWO)																				1														1	0.05
1-F-3																														1				1	0.05
1-G-17																															1			1	0.05
1-H-1																										1								1	0.05
1-H-6																																1		1	0.05
1-K-46 (DWO)			1									1								1														2	0.11
1-L-19-1																																1		1	0.05
1-M-14																					1													1	0.05
1-N-44 (DWO)																			1															1	0.05
2-A-11		1			1											1																	1	3	0.16
2-A-11A											1		1			1																			3	0.16
2-A-56 (DWO)																							1											1	0.05
2-C-106A																					1													1	0.05
2-C-81																			1															1	0.05
2-E-23								1																									1	2	0.11
2-E-39																									1									1	0.05
2-E-40																									1									1	0.05
2-F-11						1																	1											2	0.11
2-F-12																							1											1	0.05
2-G-21																									1									1	0.05
B-1-6 (DWO)																								1										1	0.05
B-1-6A (DWO)																								1										1	0.05
B-1-7 (DWO)																								1										1	0.05
B1-038-1 (DWO)					1																													1	
B-1-24-2 (DWO)																	1																	1	0.05
C1-009													1																					1	0.05
C-1-27 (DWO)																						1												1	0.05
E-1-15																															1			1	0.05
E-1-24																															1			1	0.05
E-1-25 (DWO)																1																		1	0.05
G-1-15													1												1									2	0.11
G-2-35 TO G-2-63																							1											1	0.05
G-4-6																																1		1	0.05
G-4-007		1																																1	
G-5-12																																1		1	0.05
G-5-51																					1													1	0.05
G-5-6																																1		1	0.05
G-5-7																									1									1	0.05
G-5-8																									1									1	0.05
G-5-80																								1										1	0.05
G-6-2 (DWO)																	1																	1	0.05
H-3-49																									1									1	0.05
H-4-1																								1										1	0.05
H-4-2																								1										1	0.05
H-7-33-3																										1								1	0.05
L-1-110																									1									1	0.05
L-1-111																									1									1	0.05
L1-051 (DWO)												1																						1	
L-1-50																															1			1	0.05
L-1-55																					1													1	0.05
L-1-9																										1								1	0.05
N-1-10																																1		1	0.05
N-1-13																									1									1	0.05
N-1-7																																1		1	0.05
N-1-9 (DWO)																				1														1	0.05
N-1-25-6 (DWO)	1		1																															2	0.07
V-3-105																									1									1	0.05
V-4-060 (DWO)											1							1																2	0.11
V-4-112 (DWO)											1							1																2	0.11
B-1-023 (DWO)																1																		1	0.05
3-A-85 (DWO)															1																			1	0.05
H-1-015																1																		1	0.05
1A-128														1																				1	0.05
G1-012				1									1	2																				3	0.15
L1-038														1																				1	0.05
B1-001 (DWO)														1																				1	0.05
H5-021-89 (DWO)														1																				1	0.05
H5-021-90 (DWO)							1																											1	
L1-001													1																					1	0.05
H3-002-2 (DWO)													1																					1	0.05
1M-056-A													1																					1	0.05

YEAR	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	TOTALS	AVERAGES
W1-072 (DWO)														1																				1	0.05
H6-050													1																					1	0.05
1D-062 (DWO)												1																						1	
1H-055 (DWO)											1																							1	
V3-049											1																							1	
PWCL-001 (DWO)									1																									1	
1H-012 (DWO)								1																										1	
2G-037 (DWO)							1																											1	
2A-072 (DWO)					1																													1	
1M-034					1																													1	
3A-030 (DWO)					1																													1	
3A-014 (DWO)				1																															
W1-076 (DWO)				1																															
LA Fitness-InspMH (DWO)	1																																		
TOTAL	2	9	14	12	26	5	4	7	12	1	11	15	21	43	7	23	7	16	7	21	22	12	31	36	41	37	17	4	21	7	20	38	0	549	32.29
SEWER BACKUPS																																			
234 3RD																												1						1	0.05
318 4TH																															1			1	0.05
317 5th												1																						1	
126 7th																1																		1	0.05
326 6TH														1																				1	0.05
341 6TH																																1		1	0.05
125 8TH													1																					1	0.05
327 8TH																									1									1	0.05
3004 38th																1																		1	0.05
3115 38th																1																		1	0.05
916 40TH																									1									1	0.05
29 W 55TH PL													1																					1	0.05
34 W 55TH PL													1																					1	0.05
38 W 55TH PL													1	1																				2	0.10
46 W 55 PL														1																				1	0.05
118 55TH ST																					1				1	1						1		4	0.20
113 55TH ST																										1								1	0.05
122 55TH ST																								1										1	0.05
830 55TH ST																										1								1	0.05
201 56TH ST																					1													1	0.05
300 56TH ST																		1			1					1						1		4	0.20
221 56TH ST																										1								1	0.05
246 56TH ST																									1									1	0.05
1106 60TH PL														1																				1	0.05
1122 60TH PL					1																														
1106 60TH ST																									1									1	0.05
1110 60TH ST																									1									1	0.05
912 61ST ST														1												1								2	0.10
913 61ST ST																										1								1	0.05
931 61ST ST																										1								1	0.05
1020 62ND PL													1													1					1	1		4	0.20
1040 62ND PL																										1								1	0.05
1108 62ND PL														2		1										1								5	0.25
1109 62ND PL																										1								1	0.05
1112 62ND PL																										1								1	0.05
1121 62ND PL																									1			1				1		3	0.15
1125 62ND PL													1																			1		2	0.10
1129 62nd PL																1																		1	0.05
1133 62ND PL																																1		1	0.05
1501 62ND ST																																2		2	0.10
660 62ND ST																									1									1	0.05
661 62ND ST																					1				1							1		3	0.15
740 62ND ST														1																				1	0.05
1418 62ND ST					1																1													1	0.05
1424 62ND ST																									1	1						1		3	0.15
1430 62ND ST																										1								1	0.05
1513 62ND ST																																1		1	0.05
636 63RD ST																					1													1	0.05
743 67TH ST													1																					1	0.05
12 N ADAMS																									1									1	0.05
3902 N Adams					1																														
4011 N ADAMS																									1	1								2	0.10
4112 N Adams					1																														
4013 N ADAMS																1										2								3	0.15
4012 N ADAMS																					1													1	0.05
4018 N ADAMS					1											1					1													2	0.10
4025 N ADAMS																																1		1	0.05
4100 N Adams														1																				1	0.05
27 S Adams														1																				1	0.05
113 S Adams														1																				1	0.05
210 S ADAMS																																1		1	0.05
5712 AUBREY																																1		1	0.05
407 AUSTIN																									1									1	0.05
417 AUSTIN																																1		1	0.05
1132 BARBERRY CT																												1						1	0.05
1129 BARBERRY CT							1		1			1																							
1165 Barberry CT					1		1																												
1125 Barneswood													1																					1	0.05
4507 Belmont												1																						0	
4813 BELMONT																									1									1	0.05
5213 BELMONT																					1													1	0.05
5128 BENTON																										1								1	0.05
5256 BENTON																									1									1	0.05
917 BLANCHARD														1											1	1						2		5	0.25
5440 BLODGETT																																1		1	0.05
1711 BOLSON																									1	1								2	0.10
1721 BOLSON																									1									1	0.05
1740 BOLSON																										1								1	0.05
5601 BROOKBANK																									1									1	0.05
5609.5 BROOKBANK																										1								1	0.05
5943 BROOKBANK																							1		1									2	0.10
6001 BROOKBANK														1									1											2	0.10
6005 BROOKBANK																							1											1	0.05
1224 Brookside													1																					1	0.05
4925 BRYAN PLACE																								1										1	0.05
5720 BUCK CT																										1								1	0.05
5724 BUCK CT																										1								1	0.05
431 BUNNING																																1		1	0.05
26 W BURLINGTON																										1								1	0.05
6811 CAMDEN																										1								1	0.05
6843 CAMDEN																										1								1	0.05
6849 CAMDEN																										1								1	0.05
1061 Candlewood																1																		1	0.05
19W744 CAROL																												1				1		2	0.10
19W750 CAROL																								1	1	1								3	0.15
19W758 CAROL																									1	1						1		3	0.15
19W775 CAROL																																1		1	0.05
5226 Carpenter																1																		1	0.05
5600 CARPENTER																1										1								2	0.10
5604 CARPENTER								1																		1								1	0.05
5944 CARPENTER																									1									1	0.05
6040 CARPENTER																										1								1	0.05
6121 CARPENTER														1												1								2	0.10
8 N CASS																									1									1	0.05
18 N CASS																					1													1	0.05
38 N CASS																										1								1	0.05

YEAR	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	TOTALS	AVERAGES
118 N CASS																									1									1	0.05
132 S CASS														1											1	1								3	0.15
122 S. Cass					1																														
128 S CASS																											1							1	0.05
250 N CASS																						1		1								1		3	0.15
340 S.Cass												2																							
428 S CASS														1											1									2	0.10
4010 N CASS																					1	1		1	1									4	0.20
100 Chicago													2	1																				3	0.15
200 CHICAGO																																1		1	0.05
221 Chicago													2																					2	0.10
238 Chicago					1																														
300 CHICAGO																										1			1		1			3	0.15
301 CHICAGO														1								1												2	0.10
307 CHICAGO																					2													2	0.10
321 CHICAGO																									1									1	0.05
327 CHICAGO																										1								1	0.05
645 CHICAGO																										1								1	0.05
721 CHICAGO																									1									1	0.05
733 Chicago					1																														
737 CHICAGO																					1													1	0.05
752 Chicago					1											1																		1	0.05
832 CHICAGO																					1													1	0.05
904 CHICAGO																									1									1	0.05
917 Chicago													1																					1	0.05
926 CHICAGO																																1		1	0.05
2033 CHICAGO														1																		1		2	0.10
136 W CHICAGO																															1			1	0.05
200 W CHICAGO													1	1										1		1					1			5	0.25
208 W CHICAGO																									1									1	0.05
912 CLAREMONT																										1								1	0.05
4834 Cornell												1																						1	
630 CRESCENT																										1								1	0.05
11 N CUMNOR																1										1								2	0.10
4637 CUMNOR																										1								1	0.05
5140 Cumnor														1																				1	0.05
5201 CUMNOR																					1													1	0.05
5335 Cumnor																1																		1	0.05
5340 CUMNOR																																1		1	0.05
5400 CUMNOR																					1													1	0.05
5436 CUMNOR							1						1											1										2	0.10
5507 CUMNOR																					1					1								2	0.10
5510 CUMNOR																										1								1	0.05
5525 CUMNOR																																1		1	0.05
5600 CUMNOR																								1	1							1		3	0.15
1 N CUMNOR																																1		1	0.05
805 CURTISS																									1									1	0.05
1008 CURTISS																									1									1	0.05
1900 CURTISS																									1									1	0.05
1917 B Curtiss					1																														
1922 A Curtiss													1																					1	0.05
1924 Curtiss													2																					2	0.10
1926 Curtiss													1	1																				2	0.10
1928 Curtiss					1		1																												
5525 Dunham														1		1																		2	0.10
5445 DUNHAM																																2		2	0.10
5513 DUNHAM																													1					1	0.05
5525 DUNHAM																																1		1	0.05
4107 EARLSTON																															1			1	0.05
4008 ELM																									1									1	0.05
4132 ELM													1								1													2	0.10
4505 ELM																					1										1			2	0.10
4516 ELM																															1			1	0.05
4525 ELM																						1												1	0.05
4601 ELM																					1											1		2	0.10
4605 Elm																1																		1	0.05
4613 ELM																									1									1	0.05
4625 ELM																									1									1	0.05
5325 FAIRMOUNT																									1							1		2	0.10
5729 Fairmount													1																					1	0.05
6201 FAIRMOUNT																1																1		2	0.10
6204 Fairmount														1																				1	0.05
6213 Fairmount														1																				1	0.05
6561 FAIRMOUNT																													1					1	0.05
3700 FAIRVIEW																1					1			1	1								4	0.20
4507 FAIRVIEW					1											1																1		2	0.10
4515 FLORENCE																													1					1	0.05
4611 Fairview					1																														
4621 Fairview														1																				1	0.05
4643 FAIRVIEW																										1			2					3	0.15
4647 FAIRVIEW																						1				1			2			1		5	0.25
4700 FAIRVIEW																															1			1	0.05
4715 FAIRVIEW													1													1								2	0.10
4727 Fairview													1																					1	0.05
4732 FAIRVIEW																	1							1							2	1		5	0.25
4728 FAIRVIEW																								1		1								2	0.10
5501 Fairview		1			1																														
4737 FLORENCE																					1													1	0.05
4809 FLORENCE																					1													3	0.15
5021 FLORENCE																																1		1	0.05
5325 FLORENCE																															1			1	0.05
3937 FOREST																					1													1	0.10
4820 FOREST																									1	1								2	0.10
4811 FOREST																																1		1	0.05
4820 Forest														1		1																		2	0.10
4929 FOREST																					1													1	0.05
7001 Foster					1									1																				1	0.05
7020 FOSTER					1																					1								1	0.05
419 FRANKLIN																									1	1								2	0.10
813 FRANKLIN																																1		1	0.05
819 Franklin														1																				1	0.05
831 FRANKLIN																					1													1	0.05
1122 FRANKLIN																					1													1	0.05
1125 FRANKLIN																								1										1	0.05
1115 GILBERT																																1		1	0.05
326 Gierz					1																														
1240 Gilbert													1	1																				2	0.10
1307 Gilbert														1																				1	0.05
1310 Gilbert														1																				1	0.05
1331 GILBERT																																1		1	0.05
1441 Golden Bell													1																					1	0.05
5143 Grand					1																														
5929 Grand																1																		1	0.05
213 GRANT																									1	1						1		3	0.15
229 GRANT																									1									1	0.05
405 Grant											1																								
739 GRANT																									1							1		2	0.10
123 N Grant														1																				1	0.05
504 N GRANT																																1		1	0.05
513 N GRANT																																1		1	0.05
520 N GRANT																									1									1	0.05
4008 N GRANT																										1					2			3	0.15
4010 N GRANT					1																		1			1								2	0.10
4017 N Grant														1																				1	0.05
4023 N Grant					1																														

YEAR		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	TOTALS	AVERAGES
	4031 N Grant														1																				1	0.05
	105 S GRANT																									1	1								2	0.10
	111 S GRANT																													1					1	0.05
	115 S GRANT			1		1	1		1					1												1									2	0.10
	117 S Grant								1	1																										
	123 S GRANT																								1										1	0.05
	126 S GRANT																1									1	1							1	4	0.20
	238 S GRANT																					1													1	0.05
	1231 GREGORY																										1								1	0.05
	3471 Hickory																1																		1	0.05
	3905 HIGHLAND																													1					1	0.05
	3928 HIGHLAND														1							1													2	0.10
	3932 HIGHLAND																					1			1		1								3	0.15
	3940 HIGHLAND																								1										1	0.05
	4236 HIGHLAND																									1									1	0.05
	4435 HIGHLAND																										1								1	0.05
	4943 Highland					1																														
	5021 HIGHLAND																										1								1	0.05
	420 Hill														1																				1	0.05
	1447 HILLCREST																										1								1	0.05
	1507 HILLCREST																					1													1	0.05
	1519 HILLCREST																																1		1	0.05
	5733 HILLCREST																										1								1	0.05
	6540 HILLCREST																								1										1	0.05
	6550 HILLCREST																								1	1	1								3	0.15
	1160 Hobart														2																				2	0.10
	23 N HUDSON														1											1										2	0.10
	120 N HUDSON																						1												1	0.05
	131 N HUDSON														1												1								2	0.10
	135 N HUDSON																									1									1	0.05
	145 N HUDSON																									1									1	0.05
	31 S HUDSON																								1										1	0.05
	215 S HUDSON																					1													1	0.05
	317 S HUDSON																									1							1		2	0.10
	318 S HUDSON																								1										1	0.05
	324 S HUDSON																								1										1	0.05
	330 S HUDSON																																1		1	0.05
	336 S HUDSON																								1	1	1								3	0.15
	337 S HUDSON																									1									1	0.05
	340 S HUDSON																								1										1	0.05
	301 Indianapolis													1																						0.00
	231 James													1																					1	0.05
	235 James													1																					1	0.05
	244 JAMES														1							1													2	0.10
	248 JAMES DR																										1								1	0.05
	256 JAMES DR																										1								1	0.05
	821 Jay														1																				1	0.05
	901 JAY																										1								1	0.05
	1208 Jefferson														1																				1	0.05
	1320 JEFFERSON																					1													1	0.05
	1508 JEFFERSON																										1								1	0.05
	835 KENYON																										1								1	0.05
	5316 LANE PL																										1								1	0.05
	4607 LEE																									1									1	0.05
	3911 N LIBERTY																																1		1	0.05
	3915 N LIBERTY																																1		1	0.05
	4020 N Liberty														1																				1	0.05
	212 LINCOLN													1												1									2	0.10
	29 N LINCOLN																										1								1	0.05
	101 N Lincoln																1																		1	0.05
	107 N LINCOLN																									1									1	0.05
	112 N LINCOLN					1																			1										1	0.05
	138 N LINCOLN					1																				1									1	0.05
	139 N LINCOLN																									1									1	0.05
	208 N LINCOLN																	1																	1	0.05
	216 N LINCOLN																	1																	1	0.05
	235 N LINCOLN																																1		1	0.05
	241 N LINCOLN																																1		1	0.05
	245 N Lincoln																1																		1	0.05
	3926 N Lincoln					1																														
	3928 N LINCOLN																					1				1									2	0.10
	3930 N LINCOLN																									1							1		2	0.10
	4001 N LINCOLN																									1									1	0.05
	4002 N LINCOLN																									1									1	0.05
	4003 N. Lincoln																1																		1	0.05
	4021 N LINCOLN																																1		1	0.05
	4031 N LINCOLN																									1									1	0.05
	122 S Lincoln								1																											
	130 S Lincoln						1																													
	133 S LINCOLN														2		1																		3	0.15
	136 S LINCOLN																								1	1									2	0.10
	140 S LINCOLN																									1							1		2	0.10
	200 S Lincoln								1																											
	214 S LINCOLN																																2		2	0.10
	311 S LINCOLN																								1										1	0.05
	4145 LINDLEY																									1									1	0.05
	4720 LINSCOTT																										1								1	0.05
	4920 LINSCOTT																										1								1	0.05
	4924 Linscott												1																							
	5309 LYMAN																									1									1	0.05
	5536 Lyman													1																					1	0.05
	5544 Lyman													1																					1	0.05
	5548 Lyman													1																					1	0.05
	5549 Lyman													1																					1	0.05
	5708 Lyman														1																				1	0.05
	6127 LYMAN																										1								1	0.05
	6130 LYMAN																										1								1	0.05
	6135 LYMAN																										1						1		2	0.10
	6237 LYMAN																										1								1	0.05
	6941 Lyman					1									1																				1	0.05
	3937 MAIN																										1						1		2	0.10
	3941 Main														1																				1	0.05
	4101 MAIN																									1									1	0.05
	4125 MAIN																															1			1	0.05
	5522 MAIN																																1		1	0.05
	5713 Main					1																														
	5722 MAIN																									1	1						1		3	0.15
	631 MAPLE																																1		1	0.05
	643 MAPLE																										1						1		2	0.10
	731 MAPLE																																1		1	0.05
	847 MAPLE																					1													1	0.05
	1117 MAPLE																										1								1	0.05
	1249 MAPLE																																1		1	0.05
	1325 MAPLE																										1								1	0.05
	6912 MEADOWCREST												1													1									1	0.05
	5513 MIDDAUGH																															1			1	0.05
	2200 MIDHURST																								1										1	0.05
	250 W Naperville																1																		1	0.05
	313 W NAPERVILLE																										1						1		2	0.10
	1830 NORTHBRIDGE																										1								1	0.05
	4705 NORTHCOTT																																1		1	0.05
	4721 NORTHCOTT																																1		1	0.05
	4725 NORTHCOTT																																1		1	0.05
	1231 OAK HILL RD																					1													1	0.05
	4510 OAKWOOD																										1								1	0.05
	310 Ogden													1																					1	0.05

YEAR		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	TOTALS	AVERAGES
	6017 OSAGE																																1		1	0.05
	310 Otis									1																										
	327 OTIS																															1			1	0.05
	944 OXFORD																									1									1	0.05
	2230 OXNARD																					1													1	0.05
	1450 PALMER				1										2										1	1	1						2		7	0.35
	5337 PARK																									1									1	0.05
	5423 Park																1																		1	0.05
	6212 PARK																										1								1	0.05
	101 N Park													1																					1	0.05
	124 N PARK																1					1				1							1		4	0.20
	243 N Park														2																				2	0.10
	411 N PARK																									1									1	0.05
	521 N. Park													1																					1	0.05
	526 N PARK																	1																	1	0.05
	4019 N Park												1																							
	4117 N PARK																										1								1	0.05
	4118 N PARK																1					1			1										3	0.15
	4119 N PARK																										1								1	0.05
	4121 N PARK																										1								1	0.05
	4123 N PARK																								1										1	0.05
	316 S PARK																										2								2	0.10
	325 S PARK																									1						1	2		4	0.20
	331 S PARK																								1										1	0.05
	335 S PARK													2	1												1								4	0.20
	339 S Park														1																				1	0.05
	6800 PENNER																										1								1	0.05
	4450 PERSHING																									1									1	0.05
	4604 PERSHING													1												1									2	0.10
	4616 PERSHING														1							1					1						1		4	0.20
	4620 Pershing													1																					1	0.05
	4624 PERSHING																																1		1	0.05
	4709 PERSHING																									1									1	0.10
	4712 PERSHING																									1							1		2	0.10
	4725 PERSHING																								1										1	0.05
	4819 Pershing					1																														
	4825 Pershing					1																														
	5732 PLYMOUTH																								1										1	0.05
	5736 Plymouth																1																		1	0.05
	5740 Plymouth					1																														
	7212 Powell														1																				1	0.05
	1400 PRAIRIE																																1		1	0.05
	1725 Prairie													1																					1	0.05
	2045 PRAIRIE																										1	1	1						3	0.15
	4500 PRINCE																										1								1	0.05
	4819 PRINCE																									1	1								2	0.10
	4823 PRINCE																																1		1	0.05
	4824 PRINCE																																1		1	0.05
	2110 Prentiss														1																				1	0.05
	4621 PROSPECT																					1													1	0.05
	426 ROGERS																					1													1	0.05
	430 Rogers													1	1																				2	0.10
	548 ROGERS														1												1								2	0.10
	616 ROGERS													1																					1	0.05
	603 ROGERS																					1													1	0.05
	620 ROGERS																					1													1	0.05
	4042 ROSLYN																					1													1	0.05
	4052 ROSLYN																																1		1	0.05
	4062 Roslyn																1																		1	0.05
	4111 Roslyn											1																								
	4122 ROSLYN																										1								1	0.05
	4132 Roslyn					1																														
	4151 Roslyn													1	2																				3	0.15
	4152 ROSLYN																										1								1	0.05
	4162 ROSLYN																					1					1						1		3	0.15
	4618 Roslyn					1																														
	3512 SARATOGA														1		1																1		3	0.15
	3524 SARATOGA							1							1		1																1		4	0.20
	3536 SARATOGA																	1																	1	0.05
	4533 SARATOGA																									1									1	0.05
	4710 SARATOGA																																1		1	0.05
	4836 SARATOGA																					1													1	0.05
	4919 SARATOGA																					1				1									2	0.10
	4921 SARATOGA																					1			1										2	0.10
	4922 SARATOGA																					1													1	0.05
	4925 SARATOGA																								1										1	0.05
	4425 SEELEY																										1								1	0.05
	4641 SEELEY																																1		1	0.05
	300 Sheldon														1																				1	0.05
	329 SHELDON																																2		2	0.10
	333 SHELDON																																2		2	0.10
	337 SHELDON																									1	1						1		3	0.15
	341 SHELDON																																2		2	0.10
	345 SHELDON																																2		2	0.10
	6640 SPRINGSIDE														1										1										2	0.10
	6501 STAIR																										1								1	0.05
	6505 STAIR														1												1								2	0.10
	6509 STAIR														1											1	1								3	0.15
	4339 STANLEY																									1									1	0.05
	4417 STONEWALL																										1								1	0.05
	4431 STONEWALL																									1									1	0.05
	4905 STONEWALL																																1		1	0.05
	4927 STONEWALL																															1			1	0.05
	4930 STONEWALL																										1								1	0.05
	4937 STONEWALL																													1		1			2	0.10
	22 Tower		1																																	
	220 W TRAUBE																									1									1	0.05
	240 W TRAUBE																										1								1	0.05
	801 VALLEY VIEW																										1								1	0.05
	810 VALLEY VIEW																					1													1	0.05
	820 Valley View					1																														
	821 Valley View					1																														
	830 Valley View														1																				1	0.05
	831 Valley View					1																														
	840 VALLEY VIEW														2											1									3	0.15
	841 VALLEY VIEW																									1									1	0.05
	850 VALLEY VIEW																									1	1								2	0.10
	901 VALLEY VIEW																								1	1	1								3	0.15
	910 VALLEY VIEW														1				1								1								3	0.15
	931 VALLEY VIEW																									1	1								2	0.10
	940 VALLEY VIEW																									1	1						1		3	0.15
	951 Valley View					1									2																				2	0.10
	1101 VALLEY VIEW																										1								1	0.05
	1131 VALLEY VIEW																										1								1	0.05
	1150 Valley View														1																				1	0.05
	3421 Venard																1																		1	0.05
	4935 WALLBANK																					1													1	0.05
	4939 Wallbank					1																														
	932-40 WARREN																										1								1	0.05
	3925 WASHINGTON																									1	1								2	0.10
	4004 WASHINGTON													1																			1		2	0.10
	4043 WASHINGTON																									1									1	0.05
	4129 Washington							1																												
	4236 Washington																1																		1	0.05
	4620 WASHINGTON																										1						1		2	0.10
	4436 Washington																1																		1	0.05

YEAR		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	TOTALS	AVERAGES
	4533 WASHINGTON																																1		1	0.05
	4537 WASHINGTON																																1		1	0.05
	4822 WASHINGTON																																1		1	0.05
	4915 Washington					1																														
	4925 WASHINGTON																									1									1	0.05
	5516 WASHINGTON														2																		1		3	0.15
	5521 Washington														1																				1	0.05
	5525 Washington																1																		1	0.05
	5529 WASHINGTON																									1	1								2	0.10
	5533 Washington														1																				1	0.05
	5537 WASHINGTON																					1													1	0.05
	5541 WASHINGTON														1												1								2	0.10
	15 N Washington																1																		1	0.05
	28 N WASHINGTON																					1													1	0.05
	24 N WASHINGTON																					1	1												2	0.10
	123 N WASHINGTON													1	2		1									1	1								6	0.30
	128 N WASHINGTON																										1								1	0.05
	302 N Washington														2																				2	0.10
	305 N Washington																																			
	307 N Washington																1																		1	0.05
	307 N WASHINGTON													1	4										1								1		7	0.35
	309 N WASHINGTON																								1								1		2	0.10
	418 N WASHINGTON																																2		2	0.10
	420 N WASHINGTON													2	1																	2	1		6	0.30
	516 N WASHINGTON																					1													1	0.05
	524 N WASHINGTON																					1													1	0.05
	3911 N WASHINGTON														2												1					1	1		5	0.25
	4009 N Washington													1																					1	0.05
	4015 N WASHINGTON					1								1	1			1						1								1	1		6	0.30
	4016 N WASHINGTON														1																		1		2	0.10
	4017 N WASHINGTON																										1								1	0.05
	4121 N WASHINGTON																										1								1	0.05
	332 S WASHINGTON																																2		2	0.10
	5630 WEBSTER																										1								1	0.05
	5701 WEBSTER											1		1	1			1									1								4	0.20
	5704 WEBSTER													1												1									2	0.10
	5708 WEBSTER																									1	1						1		3	0.15
	5718 WEBSTER																					1													1	0.05
	5732 WEBSTER																																1		1	0.05
	5700 WEBSTER																									1							1		2	0.10
	5705 WEBSTER																					1					1								2	0.10
	5717 WEBSTER														1											1	1								3	0.15
	5804 WEBSTER																									1							1		2	0.10
	6910 WEBSTER																								1		1								2	0.10
	5820 WEBSTER																									1									1	0.05
	6911 WEBSTER																									1									1	0.05
	6920 WEBSTER																										1								1	0.05
	6930 WEBSTER																								1	1	1						1		4	0.20
	7232 WEBSTER																										1								1	0.05
	4063 WEST END																									1									1	0.05
	4113 WEST END																									1									1	0.05
	4123 WEST END																									1	1								2	0.10
	4133 WEST END																									1									1	0.05
	116 N West End													1			1																		2	0.10
	120 N West End																1																		1	0.05
	124 N WEST END																										1								1	0.05
	428 WHIPPLE LN																										1								1	0.05
	207 WHITE FAWN																										1								1	0.05
	3800 Wilcox																1																		1	0.05
	1408 WILLARD																										1								1	0.05
	4022 Williams														1		1																		2	0.10
	4119 WILLIAMS													1	3											1							1		6	0.30
	101 S WILLIAMS																																1		1	0.05
	205 S WILLIAMS																										2								2	0.10
	4636 WILSON													1	1											1	1						1		5	0.25
	TOTAL			3		41	2		9	1	2	3	9	58	101	0	45	7	2	0	0	61	7	5	40	119	149	2	5	11	0	24	131	0	767	38.35

2021 Mainline Blockages

Friday, January 7, 2022
9:40:15 AM

Date of Backup	Name of Caller	Address	Street
1/22/2021	Keith Kenning/VODG	3100	Woodcreek
1/25/2021	Eckdahl, Robert	5924	Carpenter
2/11/2021	Rea, Dan	30	W. Sixty Third
3/22/2021	Weglowski, Paul & Jan	4429	Middaugh
4/3/2021	Compton, Greg	3815	Highland
5/4/2021	Fitzpatrick, Barry#2	48	W. Sixty Sixth
8/19/2021	Wheeler, Jennifer	5712	Aubrey
9/24/2021	Reynolds, Tyler	2460(2474)	Wisconsin
10/25/2021	Greathouse, Gary & Carol	213	Grant
11/10/2021	Unique Assembly	2550	Wisconsin
12/1/2021	Lamb, Will#2	1122	Sixty Third
12/9/2021	Wright, Mark(Roto-Rooter)	1014	Ogden

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2021 Service Line Backups

Friday, January 7, 2022
9:44:28 AM

Date of Backup	Address	Street
1/7/2021	1129	Barberry
1/9/2021	5409	Park
1/10/2021	6790	Sararoga
1/11/2021	3917	N. Grant
1/12/2021	5230	Fairview
1/12/2021	1101	Robey
1/13/2021	6505	Stairs
1/13/2021	6205	Dunham
1/13/2021	5408	Lane
1/15/2021	5521	Carpenter
1/16/2021	4816	Cornell
1/17/2021	943	Fifty Ninth
1/19/2021	5130	Main
1/19/2021	2033	Howard
1/26/2021	6900	Valley View
1/29/2021	1917	Hastings
2/1/2021	5129	Belmont
2/2/2021	2144	Curtiss
2/4/2021	4625	Middaugh
2/4/2021	5524	Brookbank
2/4/2021	6437	Loomes
2/6/2021	818	Oxford
2/8/2021	7241	Kelly
2/11/2021	4915	Pershing
2/11/2021	519	Forest Mews
2/13/2021	1561	Bolson
2/15/2021	4040	Douglas
2/16/2021	5143	Mochel
2/16/2021	5147	Mochel
2/19/2021	413	Lincoln
2/21/2021	515	N. Grant

Date of Backup	Address	Street
2/21/2021	5600	Carpenter
2/22/2021	4439	Stanley
2/22/2021	211	WhiteFawn
2/22/2021	3600	Quince
2/25/2021	4112	Highland
2/27/2021	806	Maple
2/28/2021	1026	Sixty Second Pl
3/1/2021	3901	Cumnor
3/1/2021	4618	Roslyn
3/2/2021	105	Fourth
3/8/2021	225	S. Grant
3/8/2021	7310	Baybury
3/8/2021	305	W. Quincy
3/8/2021	6767	Fairmount
3/10/2021	6831	Meadowcrest
3/10/2021	5122	Mackie
3/11/2021	5411	Lane
3/15/2021	5334	Main
3/16/2021	49	James
3/18/2021	7302	Binder
3/20/2021	3930	N. Park
3/22/2021	5549	Washington
3/22/2021	6620	Terrace
3/23/2021	447	Rogers
3/25/2021	1948	Curtiss
3/25/2021	1948	Curtiss
3/25/2021	619	Ridgeview
3/26/2021	4520	Saratoga
3/27/2021	3800	Downers
3/28/2021	3911	Glendenning
4/1/2021	6766	Valley View
4/1/2021	4718	Pershing
4/5/2021	5125	Belden

Date of Backup	Address	Street
4/7/2021	1833	Windsor
4/8/2021	3932	Forest
4/8/2021	1134	Sixtieth Pl
4/10/2021	754	Seventy Second
4/12/2021	310	Fifty Fifth
4/14/2021	4447	Pershing
4/15/2021	1146	Sixty Third
4/17/2021	420	Chicago
4/19/2021	1774	Breasted
4/19/2021	4504	Statton
4/19/2021	540	Gierz
4/21/2021	45	W. Fifty Ninth
4/22/2021	140	Burlington
4/23/2021	142	Maple
4/23/2021	1317	Jefferson
4/25/2021	1833	Windsor
4/27/2021	1101	Thirty First
4/28/2021	109	N. Grant
5/3/2021	4137	Highland
5/3/2021	34	Second
5/3/2021	722	Fifty Ninth
5/6/2021	6836	Valley View
5/7/2021	5712	Grand
5/10/2021	5205	Fairmount
5/11/2021	1209	Fifty Fifth
5/14/2021	5618	Carpenter
5/18/2021	639	Fifty Fifth
5/19/2021	2006	Prairie
5/20/2021	4322	Fairview
5/21/2021	744	Maple
5/24/2021	4801	Florence
5/24/2021	3824	Florence
5/26/2021	5724	Antler

Date of Backup	Address	Street
5/29/2021	165	Saddlebrook
6/1/2021	4530	Roslyn
6/2/2021	6881	Parker
6/3/2021	5441	Benton
6/4/2021	5524	Wilcox
6/6/2021	4512	Cornell
6/8/2021	15	Indian Trail
6/8/2021	116	N. Roslyn
6/9/2021	6412	S. Cass
6/10/2021	4722	Lee
6/10/2021	320	Eighth
6/12/2021	731	Maple
6/14/2021	229	Chicago
6/16/2021	1108	Sixty First
6/17/2021	5630	Deerpath
6/19/2021	1226	Sixty Second
6/19/2021	1108	Sixty First
6/21/2021	1430	Oak Hill Ct
6/21/2021	1130	Oak Hill
6/21/2021	7323	Baybury
6/24/2021	621	Dawn
6/24/2021	3737	Downers
6/25/2021	207	Bridle Path Cir
6/25/2021	4728	Florence
6/26/2021	740	W. Sixty First
6/26/2021	1134	Sixtieth Pl
6/26/2021	1040	Claremont
6/26/2021	4116	Liberty
6/26/2021	1884	Brighton
6/27/2021	5618	Carpenter
6/27/2021	1100	Thirty Ninth
6/28/2021	209	N. Adams
6/28/2021	30	W. 56th St.

Date of Backup	Address	Street
6/28/2021	436	Bunning
6/30/2021	6320	S. Cass
6/30/2021	244	Herbert
6/30/2021	5728	Plymouth
6/30/2021	4940	Puffer
7/1/2021	30	N. Washington
7/7/2021	100	W. Ogden
7/7/2021	3726	Sterling
7/9/2021	611	Austin
7/9/2021	305	Hambletonian
7/10/2021	721	Doe
7/12/2021	5514	Glenview
7/19/2021	3685	Saratoga
7/20/2021	4705	Roslyn
7/22/2021	5341	Benton
7/22/2021	951	Indian Boundary
7/26/2021	6931	Parkview
7/26/2021	528	Forest Mews
7/27/2021	4633	Saratoga
7/28/2021	5341	Benton
7/28/2021	2237	Westfield
7/29/2021	7070	Foster
7/30/2021	907	Sixty First
8/3/2021	4907	Edward
8/6/2021	2241	Maple
8/9/2021	1907	Brighton
8/10/2021	624	Sixty Seventh
8/12/2021	5341	Benton
8/13/2021	5215	Grand
8/14/2021	3800	Highland
8/14/2021	1722	Taylor
8/16/2021	3811	Venard
8/16/2021	1986	Loomes

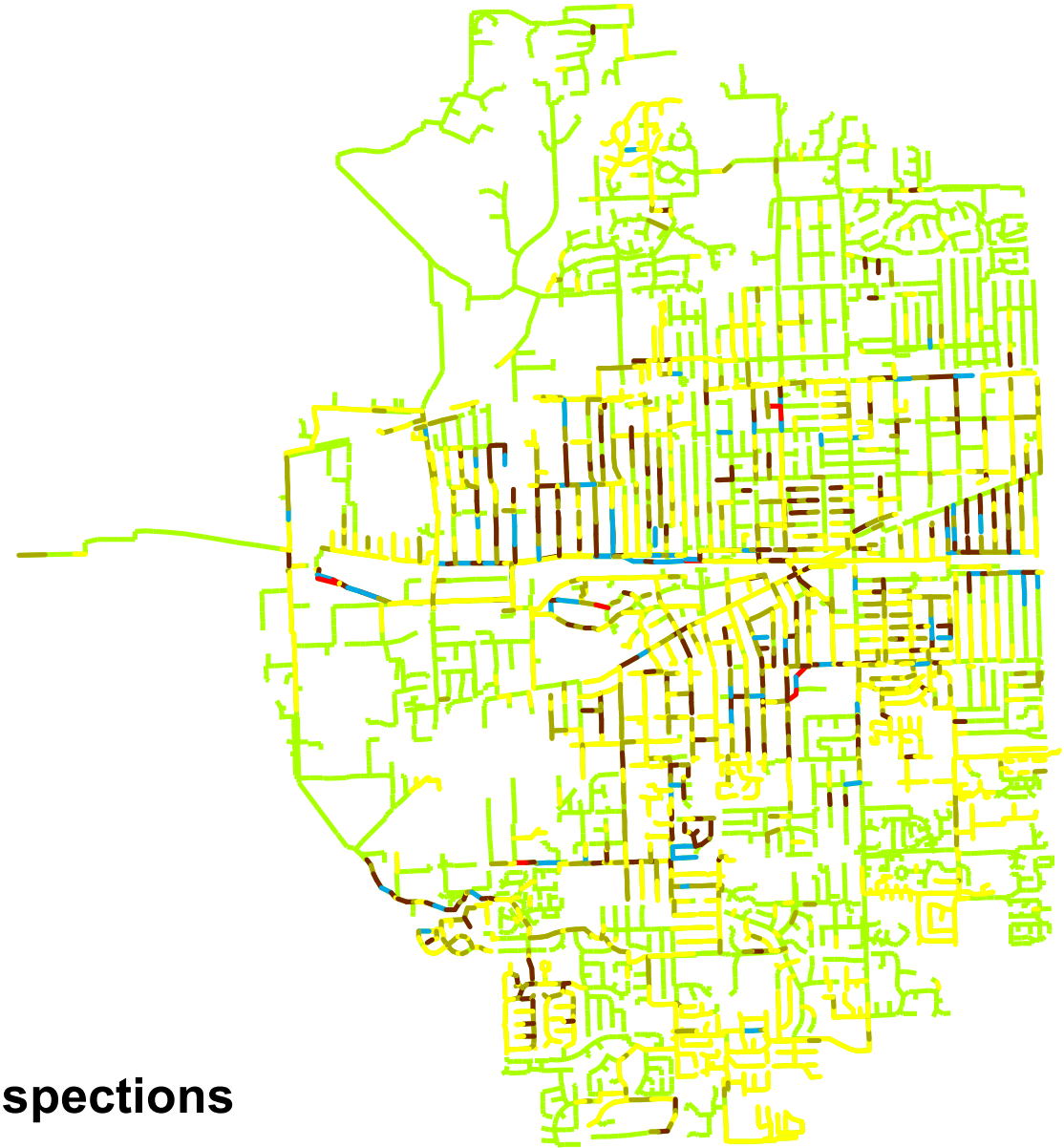
Date of Backup	Address	Street
8/17/2021	6616	Blackstone
8/17/2021	5719	Deer Creek
8/18/2021	416	Tracy
8/18/2021	5300	Katrine
8/19/2021	1040	Pinewood
8/20/2021	5712	Springside
8/22/2021	1986	Loomes
8/27/2021	5618	Carpenter
8/27/2021	6	Eighth
8/30/2021	214	Sixth
9/2/2021	4907	Edward
9/3/2021	3928	N. Cass
9/3/2021	511	N. Washington
9/3/2021	2248	Westfield
9/10/2021	5737	Main
9/12/2021	4740	Linscott
9/12/2021	4316	Sterling
9/13/2021	6	Sixty First
9/13/2021	5939	Brookbank
9/14/2021	2659	Wisconsin
9/16/2021	4923	Prospect
9/21/2021	1132	Barberry
9/22/2021	4928	Middaugh
9/22/2021	5430	Washington
9/23/2021	7325	Ticonderoga
9/23/2021	3300	Saratoga
9/23/2021	1039	Braemoor
9/27/2021	4440	Lee
9/29/2021	111	S. Park
9/30/2021	6220	Park
9/30/2021	3649	Duchess
10/5/2021	2101	Midhurst
10/8/2021	1016	Blanchard

Date of Backup	Address	Street
10/8/2021	1210	Wallen
10/13/2021	1102	Sixtieth
10/13/2021	701	Brougham
10/14/2021	1044	Pinewood
10/18/2021	3940	Fairview
10/20/2021	4833	Stanley
10/22/2021	2015	Chicago
10/23/2021	245	W. Fifty Seventh
10/25/2021	106	N. Washington
10/25/2021	925	Weatherbee
10/25/2021	105	Livery
10/25/2021	4640	Forest
10/26/2021	6117	Washington
10/26/2021	4112	Lindley
10/26/2021	2201	Prentiss
11/1/2021	118	W. Sixty Seventh
11/4/2021	6567	Fairmount
11/4/2021	6566	Fairmount
11/4/2021	623	Franklin
11/4/2021	5933	Hillcrest
11/5/2021	5440	Park
11/5/2021	5809	Webster
11/6/2021	4424	Arbor
11/8/2021	1228	Ogden
11/9/2021	221	S. Adams
11/9/2021	3811	Venard
11/10/2021	6450	Hathaway
11/11/2021	18	W. Fifty Sixth Pl
11/14/2021	214	Sixth
11/15/2021	5905	Blodgett
11/15/2021	6540	Dunham
11/23/2021	1757	Breasted
11/24/2021	35	Steeple

Date of Backup	Address	Street
11/24/2021	4812	Linscott
11/27/2021	1932	Curtiss
11/27/2021	4060	Fairview
11/29/2021	202	Polo
11/29/2021	339	Lincoln
11/30/2021	4637	Highland
12/3/2021	5401	Blodgett
12/4/2021	6312	Powell
12/6/2021	432	Fernwood
12/7/2021	215	Sixth
12/10/2021	405	Chicago
12/11/2021	5152	Fairview
12/12/2021	4821	Northcott
12/12/2021	4429	Prospect
12/15/2021	2222	Maple
12/15/2021	5520	Brookbank
12/17/2021	101	W. Quincy
12/20/2021	619	Claremont
12/20/2021	3713	Venard
12/20/2021	624	Ridgeview
12/20/2021	3916	Washington
12/21/2021	1103	Mistwood
12/22/2021	128	Saddlebrook
12/23/2021	4711	Prince
12/26/2021	5635	Aubrey
12/29/2021	601	Gierz
12/30/2021	6671	Powell
12/30/2021	5736	Dearborn
12/30/2021	1121	Buttonwood
258		

2021 Mainline PACP TV Status

N



Legend

PACP Inspections

TOTAL MAINLINES PACP RATED =614,235

- Failure unlikely in the foreseeable future - 382,935 Ft.
- Pipe unlikey to fail for at least 20 years - 123,086 Ft.
- Pipe may fail in 10 to 20 years - 70,502 Ft.
- Pipe wil probably fail in 5 to 10 years - 33,442 Ft.
- Pipe has failed or will fail within the next 5 years - 4,271

PACP Rated Mainlines -614,235 Ft. =46% of Total Mains

- Total District Sanitary Mainlines - 1,336,992 - Ft.

Downers Grove Sanitary District
Flow Monitoring Program

I/I Ranking Summary - Highest I/I to Lowest I/I

Through January 2022

Manhole Number	Group	Region	Average I/I Number	Rank 1 = Highest I/I
2-D-16	C	Central	32.78	1
W-1-4	M	Hobson	27.67	2
N-1-3	E	Northwest	23.58	3
1-G-18	I	Central	23.34	4
1-L-19-1	H	Central	21.27	5
W-2-3	M	Hobson	20.95	6
1-J-9	A	Central	20.81	7
N-1-25	E	Northwest	20.64	8
2-C-25	C	Central	19.34	9
1-M-8	H	Central	19.12	10
1-F-9	I	Central	18.78	11
W-1-12	M	Hobson	18.41	12
G-1-15	B	Central	17.65	13
1-K-10	A	Central	17.37	14
V-2-31	O	Northwest	17.07	15
1-M-15	H	Central	16.67	16
1-K-28	A	Central	16.39	17
N-1-38	E	Northwest	16.30	18
1-A-3	K	Central	16.11	19
1-G-35	H	Central	16.04	20
2-D-4	C	Central	15.29	21
V-1-15	O	Northwest	14.58	22
E-1-14	O	Central	14.54	23
G-2-1	B	Central	14.27	24
2-A-42	K	Central	14.23	25
G-6-2	B	Central	14.10	26
1-H-4	H	Central	14.04	27
1-B-10	J	Central	13.80	28
2-G-5	C	Central	13.27	29
E-1-26	O	Central	13.24	30
V-4-2	N	Central	12.56	31
B-1-000	E	Northwest	12.52	32
C-1-000	L	Hobson	12.41	33

1-D-8	J	Central	12.26	34
1-G-5	A	Central	12.21	35
G-5-15	B	Central	12.16	36
L-1-111	N	Central	12.05	37
2-F-1	C	Central	11.59	38
1-N-11	A	Central	11.41	39
1-E-38	I	Central	10.96	40
V-3-82	N	Central	10.75	41
L-1-000	N	Central	10.53	42
1-A-128	K	Central	10.31	43
1-G-14S	I	Central	10.14	44
W-2-42	M	Hobson	10.13	45
H-3-48	D	Hobson	10.08	46
H-1-22	F	Hobson	10.06	47
W-2-7	M	Hobson	10.02	48
1-G-46	A	Central	9.99	49
V-3-13	N	Central	9.96	50
2-F-2	C	Central	9.79	51
G-3-11	B	Central	9.67	52
1-B-2	J	Central	9.57	53
L-1-33	N	Central	9.45	54
1-J-16	A	Central	9.30	55
H-4-75	F	Hobson	9.22	56
W-1-2	M	Hobson	9.21	57
W-1-30	M	Hobson	9.19	58
L-1-17	N	Central	9.17	59
1-F-31	I	Central	9.03	60
L-1-13	N	Central	9.03	61
1-M-12A	H	Central	8.99	62
H-3-18	D	Hobson	8.98	63
2-A-8	L	Central	8.88	64
1-N-1A	A	Central	8.87	65
1-C-6	J	Central	8.55	66
1-C-50	K	Central	8.53	67
1-J-3-1	A	Central	8.25	68
W-2-15	M	Hobson	8.20	69
1-A-10	K	Central	8.07	70
2-C-1	C	Central	8.03	71
W-1-65	M	Hobson	7.89	72
2-E-5	C	Central	7.88	73
1-J-14	A	Central	7.75	74
1-L-12R	B	Central	7.69	75
G-4-4A	B	Central	7.61	76

1-D-4	J	Central	7.59	77
2-G-12	C	Central	7.58	78
1-K-2	A	Central	7.47	79
1-F-21S	I	Central	7.18	80
V-4-14	N	Central	7.17	81
1-E-7	I	Central	7.12	82
H-7-9-7	G	Hobson	7.01	83
1-C-6S	J	Central	7.01	84
2-B-7	L	Central	6.94	85
W-1-39	M	Hobson	6.91	86
H-3-15	D	Hobson	6.86	87
2-A-1	L	Central	6.80	88
C-1-5	L	Hobson	6.77	89
1-E-6S	I	Central	6.69	90
1-H-9	H	Central	6.64	91
2-A-10S	K	Central	6.61	92
1-B-18	J	Central	6.60	93
G-2-4	B	Central	6.48	94
3-B-1A	E	WWTC	6.36	95
G-3-3	B	Central	6.29	96
G-5-28	B	Central	6.26	97
2-C-54	C	Central	6.25	98
H-2-6	F	Hobson	6.25	99
N-1-76	E	Northwest	6.06	100
H-3-12	D	Hobson	5.96	101
1-G-22S	I	Central	5.95	102
H-5-21-1	G	Hobson	5.93	103
H-2-15	D	Hobson	5.89	104
V-1-9	O	Northwest	5.86	105
1-E-80	J	Central	5.80	106
2-A-10	K	Central	5.75	107
H-2-29	D	Hobson	5.73	108
H-7-26	G	Hobson	5.65	109
G-4-12	B	Central	5.63	110
1-E-4S	J	Central	5.58	111
V-3-8R	N	Central	5.41	112
H-1-3	F	Hobson	5.35	113
2-A-1S	L	Central	5.25	114
H-5-17	G	Hobson	5.21	115
V-4-34	N	Central	5.14	116
G-5-2	B	Central	5.13	117
1-C-2	K	Central	5.13	118
H-4-46	F	Hobson	5.09	119

B-1-17	E	Northwest	4.97	120
H-1-17	F	Hobson	4.89	121
C-1-11	L	Hobson	4.83	122
H-6-5	D	Hobson	4.80	123
V-1-000	O	Northwest	4.62	124
H-6-28C	D	Hobson	4.61	125
V-1-6	O	Northwest	4.51	126
V-2-7	O	Northwest	4.24	127
2-C-10	C	Central	4.19	128
V-3-000	I	Central	4.13	129
B-1-35	E	Northwest	3.97	130
H-3-2-2	D	Hobson	3.96	131
3-A-2	E	WWTC	3.79	132
3-A-8	E	Hobson	3.60	133
H-4-29	F	Hobson	3.56	134
H-7-17	G	Hobson	3.45	135
H-5-12	G	Hobson	3.45	136
H-7-6	G	Hobson	3.37	137
E-1-000	O	Central	3.25	138
V-1-17	O	Northwest	2.90	139
H-5-21-9	G	Hobson	2.78	140
1-G-28R	H	Central	2.73	141
H-7-30A	G	Hobson	2.57	142
H-2-99	F	Hobson	2.50	143
H-5-21-17	G	Hobson	2.43	144
H-7-9-47	G	Hobson	2.39	145
H-4-12	F	Hobson	2.38	146
2-A-49	L	Central	2.12	147
H-5-2	G	Hobson	2.03	148
V-3-21	N	Central	1.67	149
H-8-1	F	Hobson	1.31	150

DOWNERS GROVE SANITARY DISTRICT

M E M O

DATE: January 17, 2022

TO: Amy Underwood
General Manager

FROM: Robert Swirsky
Sewer System Maintenance Supervisor

RE: 2022 Collection System Work Plan

Proposed work on the collection system for 2022

1. Regular cleaning of 298,256 feet of sewers with diameter 21 inches or smaller (4 year cycle). Sewer areas 1L, 1M, 1N, 2C, 2D, 2E, 2F, 2G, G1, G2, G3, G4, G5, G6, W1, and annual cleaning of all siphons.

2. Continue to heavy clean main sewers on the PM. List every 6 months (40,114 feet), and every 3 months (5,945 feet).

3. Continue annual monitoring and heavy cleaning if needed of 3,974' of 18" and 30" main sewer in the Denburn Woods and Gilbert Park area.

4. Televise 103,550 feet of main sewers (13 year cycle).

5. Continue the regular metering of the 50 basins for 9 weeks per basin (3 year cycle).

6. Resume the inspection of private property under the Private Property Infiltration and Inflow (I&I) Removal Program in the targeted basins.

7. Continue the Building Sanitary Service Repair Assistance Program including the removal of identified I/I sources within these buildings.

8. Televise and locate as needed the building services for the Private Property I/I Removal Program, Building Sanitary Service Repair Assistance Program and the Cost Reimbursement Program for the installation of Overhead Sewers or Backflow Prevention Devices.

9. Inspect buildings for I/I sources for the above programs.

10. Inspect 300 district manholes (20 year cycle)

11. Utilize flow meter data and other district records to prioritize main sewers for repair or rehabilitation in accordance with the I/I Removal and Sewer System Rehabilitation Policy.

12. Utilize the Lucity software and other district records to prioritize main sewers for repair or rehabilitation in accordance with the I/I removal and Sewer system Rehabilitation Policy.

13. Continue updating records and correcting errors in GIS and Lucity.

14. Continue to assist at the treatment plant and lift stations with maintenance and other tasks where the use of the Vac-Con is beneficial.

CC: WDVB, AES, PWC, RTJ, KJR, MS, MGP

NDPES Permit Renewal

Downers Grove Sanitary District

January 18, 2022

Background

- The Downers Grove Sanitary District (DGSD) Wastewater Treatment Center (WWTC) operates under NPDES Permit No. IL0028380.
- Current Permit
  - Effective: August 1, 2015
  - Modified: July 18, 2019
  - Expired: July 31, 2020
  - DGSD Submitted Permit Renewal Application: January 28, 2020
- Draft Permit
  - Public Notice Beginning: January 6, 2022
  - Public Notice Ending: February 7, 2022

Revised Limits

- Total Residual Chlorine (TRC)
- Fecal Coliform
- Outfall B01 only
  - Tertiary treated flow up to 22 MGD
  - No changes to Excess Flow limits

Total Residual Chlorine

- Current Limit: 0.05 mg/L TRC
- Proposed Limit: 0.038 mg/L TRC
  - The TRC limit should have always been this low, but technology was not available until now to accurately and consistently measure this low.
- In 2019, DGSD WWTC B01 effluent exceeded the proposed limit 26% of the time. In order to ensure the new limit is met:
  - Need to run TRC samples with new method
  - May need to fine tune chlorine and bisulfite pumps controls
  - Compliance Schedule
    - Provide progress updates every six (6) months
    - Meet new limit w/in 24 months
- New laboratory equipment has been purchased, and District Lab Staff have been optimizing the new method.

Fecal Coliform

- Current Limit: 400 per 100 mL daily maximum
- Proposed Limit:
  - 200 per 100 mL monthly geometric mean
  - 400 per 100 mL in no more than 10% of the samples during the month
  - 83 billion cfu per day (167 billion cfu per day) monthly geometric mean
- Revised limits are consistent with the limits in the DuPage River/Salt Creek Watershed TMDL Report dated September 2019.
- The DGSD WWTC historically has been the proposed limits.

Phosphorus Limit & DRSCW Special Condition

- New compliance date for 1 mg/L total phosphorus limit
  - Moved from August 1, 2025 to August 1, 2028, if use chemical treatment
  - Moved from August 1, 2026 to August 1, 2029, if use biological treatment
- Additional special watershed projects in the DRSCW Special Condition
  - One in each watershed (East Branch, West Branch and Salt Creek)
  - To be completed by December 31, 2028

Other Notable Requirements

- Annual updates of the District's Capacity, Management, Operations, and Maintenance (CMOM) plan
- Re-evaluate Local Limits within six (6) months

Questions

NPDES Permit No. IL0028380

Notice No. kar02132020

Public Notice Beginning Date: **January 06, 2022**

Public Notice Ending Date: **February 07, 2022**

PUBLIC NOTICE/FACT SHEET
of
Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

Downers Grove Sanitary District
2710 Curtiss Street
P.O.Box 1412
Downers Grove, Illinois 60515

Name and Address of Facility:

Downers Grove S.D. - Wastewater Treatment Center
5003 Walnut Avenue
Downers Grove, Illinois 60515
(DuPage County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. Interested persons are invited to submit written comments on the draft Permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the Permit applicant. The NPDES Permit and notice numbers must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft Permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicates a significant degree of public interest in the draft Permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final Permit is issued. For further information, please call Keith Runge at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating domestic and industrial wastewater for Downers Grove Sanitary District.
The length of the Permit is approximately 5 years.

The main discharge number is B01. The seven day once in ten year low flow (7Q10) of the receiving stream, East Branch of DuPage River, is 14 cfs.

Downers Grove Sanitary District is a member of the DuPage River Salt Creek Workgroup.

The design average flow (DAF) for the facility is 11 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 22 MGD. Treatment consists of screening, grit removal, primary clarification, activated sludge, secondary clarification, filtration, excess flow treatment, disinfection and sludge treatment.

When the flow rates exceed the tertiary capacity of the plant (22 MGD), the excess flow reaching the influent pumping station is pumped directly to the excess flow clarifiers for storage and primary treatment with disinfection. The excess flow treatment system treatment capacity is 40 MGD, and effluent from the excess flow clarifiers (Outfall A01) blends with the main outfall effluent (Outfall B01) before being discharged through Outfall 001.

Additional excess flow capacity is available when intermediate clarifier #1 is isolated from the secondary effluent, and the excess flow reaching the influent pumping station is pumped directly to intermediate clarifier #1 for primary treatment and disinfection. The intermediate clarifier #1 capacity is 16 MGD and the effluent (Outfall C01) also blends with the main outfall effluent (Outfall B01) before being discharged through Outfall 001.

Additional excess flow capacity is available when intermediate clarifiers #2 and #3 are isolated from the secondary effluent, and the excess flow reaching the influent pumping station is pumped directly to intermediate clarifiers #2 and #3 for primary treatment and disinfection. Intermediate clarifiers #2 and #3 have a design capacity of 32 MGD, and the effluent is discharged from Outfall 003 to St. Joseph Creek if the hydraulic capacity of the discharge pipe is exceeded (30 MGD). The total capacity of the plant with all excess flow facilities in operation is 110 MGD.

Outfall 001 is an extended pipe to the East DuPage River with a hydraulic capacity of 30 MGD. When the outfall pipe capacity is exceeded, flows spill over a weir, and are discharged from Outfall 002 to St. Joseph Creek.

This treatment works has an approved pretreatment program. There is 1 CIU.

This Reissued NPDES Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

Application is made for the existing discharges which are located in DuPage County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

Discharge Number	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001 (Combined Discharge)	East Branch of DuPage River	41^{0}47'46" North	88^{0}04'48" West	General Use	Not Rated
A01 (Excess Flow Clarifiers)	East Branch of DuPage River	41^{0}47'46" North	88^{0}04'48" West	General Use	Not Rated
B01 (Internal Mixing Chamber)	East Branch of DuPage River	41^{0}47'46" North	88^{0}04'48" West	General Use	Not Rated
C01 (Intermediate Clarifier #1)	East Branch of DuPage River	41^{0}47'46" North	88^{0}04'48" West	General Use	Not Rated
002 (Overflow Weir)	St. Joseph Creek	41^{0}47'43" North	88^{0}03'08" West	General Use	Not Rated
003 (Intermediate Clarifiers #2 & #3)	St. Joseph Creek	41^{0}47'40" North	88^{0}03'02" West	General Use	Not Rated

To assist you further in identifying the location of the discharge(s) please see the attached map.

The stream segment(s), Waterbody Segment GBL-05, receiving the discharge from outfall(s) 001 is on the 2018 303(d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

Potential Causes	Uses Impaired
Alteration of stream-side or littoral vegetative covers, chloride, dissolved oxygen (non-pollutant), phosphorus, and total suspended solids	Aquatic Life
Polychlorinated Biphenyls	Fish Consumption

The stream segment(s), Waterbody Segment GBLB-01, receiving the discharge from outfall(s) 002 and 003 is on the 303(d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

Potential Causes	Uses Impaired
Alteration of stream-side or littoral vegetative covers (non-pollutant), aquatic algae (non-pollutant), oil and grease, other flow regime alterations (non-pollutant), dissolved oxygen (non-pollutant), and total suspended solids	Aquatic Life

The Downers Grove SD discharges to the East Branch Du Page River (GBL-05). The East Branch Du Page, Waterbody Segment, IL_ GBL-05, is listed on the 2018 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as alteration in stream-side or littoral vegetative cover, chloride, dissolved oxygen (non-pollutant), phosphorus, and total suspended solids (TSS) and fish consumption use is impaired with potential cause given as polychlorinated biphenyls. From the treatment plant to the end of segment GBL-05 is a distance of 3.18 stream miles.

Segment IL_GBL-02 is the next segment of the East Branch Du Page River. The East Branch Du Page, Waterbody Segment, IL_ GBL-02, is listed on the 2018 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as arsenic, methoxychlor, flow regime modifications, sedimentation/siltation and phosphorus, and fish consumption use is impaired with potential cause given as polychlorinated biphenyls (PCBs). Aesthetic quality use is fully supported. Segment IL_ GBL-02 is 8.01 stream miles in length.

The East Branch Du Page River combines with the West Branch Du Page River to for the Du Page River. Du Page, Waterbody Segment, IL_ GB-16, is listed on the 2018 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as dissolved oxygen, nitrogen, phosphorus, and flow regime modification, fish consumption use is impaired with potential causes given as mercury and polychlorinated biphenyls, and primary contact use with potential cause given as fecal coliform Aesthetic quality use is fully supported. Segment IL_ GB-16 is 11.31 stream miles in length.

This discharge is approximately 11.19 miles upstream of Waterbody Segment, IL_GB-16, which is listed as impaired with a potential cause of dissolved oxygen which is indicative of excess algae.

Discharge Number: B01 Internal Mixing Chamber Discharge to the East Branch of DuPage River

Load limits computed based on a design average flow (DAF) of 11.0 MGD (design maximum flow (DMF) of 22.0 MGD).

The discharge(s) from the facility are proposed to be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day* DAF (DMF)		CONCENTRATION LIMITS mg/L			
Parameter	Monthly Average	Daily Maximum	Monthly Average		Daily Maximum	Regulation
$CBOD_5$**	917 (1,835)	1,835 (3,670)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	1,101 (2,202)	2,202 (4,404)	12		24	35 IAC 304.120 40 CFR 133.102
Chlorine Residual					0.038	35 IAC 302.208
Total Phosphorous (as P)***	92 (183)		1.0			35 IAC 309.146
Ammonia Nitrogen (as N):						
April - October	138 (275)	275 (550)	1.5		3.0	35 IAC 355 and
Nov. - February	367 (734)	688 (1,376)	4.0		7.5	35 IAC 302
March	367 (734)	734 (1,468)	4.0		8.0	
			Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen						
March-July			N/A	6.0	5.0	35 IAC 302.206
August-February			5.5	4.0	3.5	
pH	Shall be in the range of 6 to 9 Standard Units					35 IAC 304.125
Fecal Coliform****	See Below					35 IAC 304.121
Dissolved Phosphorous	Monitor Only					35 IAC 309.146
Total Nitrogen(as N)	Monitor Only					35 IAC 309.146
Nitrate/Nitrite	Monitor Only					35 IAC 309.146
Total Kjeldahl Nitrogen (TKN)	Monitor Only					35 IAC 309.146
Alkalinity	Monitor Only					35 IAC 309.146
Temperature	Monitor Only					35 IAC 309.146
Chloride	Monitor Only					35 IAC 309.146

* Load Limits are calculated by using the formula: 8.34 x (Design Average and/or Maximum Flow in MGD) x (Applicable Concentration in mg/L).
**BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent.
***A compliance schedule to provide the facility additional time to comply with the phosphorus effluent limit has been included in this draft Permit.
****From May through October the monthly geometric mean shall not exceed 200 per 100 mL or 83 billion cfu per day (167 billion cfu per day), nor shall more than 10% of the samples during the month exceed 400 per 100 mL.

Discharge Number(s) and Name(s): A01 Excess Flow Outfall from Excess Flow Clarifiers (Flow in excess of 15,268 gpm)
C01 Excess Flow Outfall from Intermediate Clarifier #1 (Flow in excess of 15,268 gpm)

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	CONCENTRATION LIMITS (mg/L)		
Parameter	Monthly Average	Weekly Average	Regulation
BOD_5	Monitor Only		35 IAC 309.146
Suspended Solids	Monitor Only		35 IAC 309.146
Ammonia Nitrogen (as N)	Monitor Only		35 IAC 309.146
Total Phosphorus (as P)	Monitor Only		35 IAC 309.146

Discharge Number(s) and Name(s): 001 Combined Discharge from A01, B01 and C01 Outfalls

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	CONCENTRATION LIMITS (mg/L)		
Parameter	Monthly Average	Weekly Average	Regulation
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 mL		35 IAC 304.121
BOD_5*	30	45	40 CFR 133.102
Suspended Solids*	30	45	40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units		35 IAC 304.125
Chlorine Residual	0.75		35 IAC 302.208
Ammonia Nitrogen (as N)	Monitor only		35 IAC 355 and 35 IAC 302
Total Phosphorus (as P)	Monitor only		35 IAC 309.146
Dissolved Oxygen	Monitor only		35 IAC 302.206
*The 30-day average percent removal shall not be less than 85 percent.			

Discharge Number(s) and Name(s): 002 Mixing Chamber Overflow Weir to St. Joseph Creek
003 Excess Flow From Intermediate Clarifiers #2 and #3 to St. Joseph Creek

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	CONCENTRATION LIMITS (mg/L)		
Parameter	Monthly Average	Weekly Average	Regulation
BOD_5*	30	45	40 CFR 133.102
Suspended Solids*	30	45	40 CFR 133.102
Fecal Coliform	Daily maximum shall not exceed 400 per 100mL		35 IAC 304.121
pH	Shall be in the range of 6 to 9 Standard Units		35 IAC 304.125
Chlorine Residual	0.75		35 IAC 302.208
Ammonia Nitrogen (as N)	Monitor only		35 IAC 355 and 35 IAC 302
Total Phosphorus (as P)	Monitor only		35 IAC 309.146
Dissolved Oxygen	Monitor only		35 IAC 302.206
*The 30-day average percent removal shall not be less than 85 percent.			

This draft Permit also contains the following requirements as special conditions:

1. Reopening of this Permit to include different final effluent limitations.

2. Operation of the facility by or under the supervision of a certified operator.

3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.

4. More frequent monitoring requirement without Public Notice.

5. Prohibition against causing or contributing to violations of water quality standards.

6. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.

7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

8. Effluent sampling point location.

9. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.

10. Controlling the sources of infiltration and inflow into the sewer system.

11. Seasonal fecal coliform limits, and a requirement to monitor a limit of 0.038 mg/L for chlorine residual when it is used.

12. The Permittee implements and administers an industrial pretreatment program pursuant to 40 CFR §403.

13. Submission of annual fiscal data.

14. The Permittee is required to perform biomonitoring tests in the 18th, 15th, 12th and 9th months prior to the expiration date of the Permit, and to submit the results of such tests to the IEPA within one week of receiving the results from the laboratory.

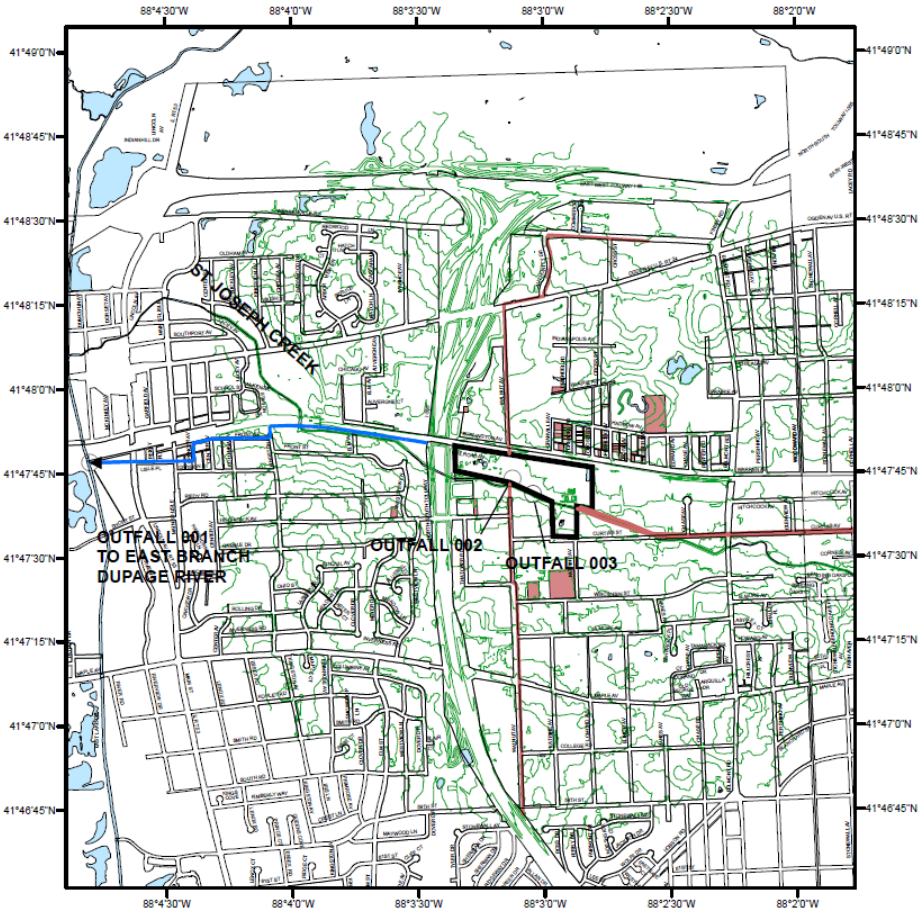
15. Submission of semi-annual reports indicating the quantities of sludge generated and disposed.

16. Capacity, Management, Operations and Maintenance (CMOM) requirements.

17. DuPage River Salt Creek Workgroup requirements.

18. Reasonable potential analysis and mixing study plan.

19. Compliance schedule for Chlorine Residual.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ST JOSEPH CREEK
OUTFALL 001
TO EAST BRANCH
DUPAGE RIVER
OUTFALL 002
OUTFALL 003

NPDES Permit No. IL0028380

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:
Effective Date:

Name and Address of Permittee:

Downers Grove Sanitary District
2710 Curtiss Street
P.O.Box 1412
Downers Grove, Illinois 60515

Facility Name and Address:

Downers Grove S.D. - Wastewater Treatment Center
5003 Walnut Avenue
Downers Grove, Illinois 60515
(DuPage County)

Receiving Waters: East Branch of DuPage River and St. Joseph Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the Effluent Limitations, Monitoring, and Reporting requirements; Special Conditions and Attachment H Standard Conditions attached herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Darin E. LaCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

DEC: kar02132020

NPDES Permit No. IL0028380

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 Mixing Chamber Discharge to the East Branch of the DuPage River

Load limits computed based on a design average flow (DAF) of 11.0 MGD (design maximum flow (DMF) of 22.0 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)**			CONCENTRATION LIMITS MG/L				
Parameter	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Monthly Average	Daily Maximum	Sample Frequency	Sample Type
Flow (MGD)							Continuous	
$CBOD_5$***[1]	917 (1,835)		1,835 (3,670)	10		20	2 Days/Week	Composite
Suspended Solids[1]	1,101 (2,202)		2,202 (4,404)	12		24	2 Days/Week	Composite
Chlorine Residual*****						0.038	2 Days/Week	Grab
Total Phosphorus as (P)* [2]	92 (183)			1.0			1 Day/Month[2]	Composite
Ammonia Nitrogen as (N)								
April -October	138 (275)		275 (550)	1.5		3.0	2 Days/Week	Composite
November-Feb.	367 (734)		688 (1376)	4.0		7.5	2 Days/Week	Composite
March	367 (734)		734 (1468)	4.0		8.0	2 Days/Week	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum	Sample Frequency	Sample Type
Dissolved Oxygen								
March-July				N/A	6.0	5.0	2 Days/Week	Grab
August-February				5.5	4.0	3.5	2 Days/Week	Grab
pH	Shall be in the range of 6 to 9 Standard Units						2 Days/Week	Grab
Fecal Coliform****	See Below						2 Days/Week	Grab
Dissolved Phosphorus	Monitor Only						1 Day/Month	Composite
Total Nitrogen (as N)	Monitor Only						1 Day/Month	Composite
Nitrite/Nitrate	Monitor Only						1 Day/Month	Composite
Total Kjeldahl Nitrogen (TKN)	Monitor Only						1 Day/Month	Composite
Alkalinity	Monitor Only						1 Day/Month	Composite
Temperature	Monitor Only						1 Day/Month	Grab
Chloride	Monitor Only						1 Day/Month	Grab

(continued on next page)

NPDES Permit No. IL0028380

Effluent Limitations, Monitoring, and Reporting

FINAL

*See Special Condition 17.
**Load limits based on design maximum flow shall apply only when flow exceeds design average flow.
***Carbonaceous BOD_5 ($CBOD_5$) testing shall be in accordance with 40 CFR 136.
****From May through October the monthly geometric mean shall not exceed 200 per 100 mL or 83 billion cfu per day (167 billion cfu per day), nor shall more than 10% of the samples during the month exceed 400 per 100 mL.
*****See special condition 19.

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.
Fecal Coliform shall be reported on the DMR as a monthly geometric mean, a percentage of samples exceeding 400 per 100 mL, and a daily maximum value.
pH shall be reported on the DMR as a minimum and a maximum.
Chlorine Residual shall be reported on the DMR as daily maximum value.
Total Phosphorus shall be reported on the DMR as a daily maximum and monthly average value.
Dissolved oxygen shall be reported on the DMR as a minimum value.
Total Nitrogen (calculated) shall be reported on the DMR as a daily maximum value.
Nitrite/Nitrate is the calculated sum.

[1] BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent $CBOD_5$ concentration to determine the effluent BOD_5 concentration. Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

[2] Upon the effective date of the phosphorus effluent limits, the sampling frequency shall increase to 1 day/week.

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): A01 Excess Flow Outfall from Excess Flow Clarifiers
C01 Excess Flow Outfall from Intermediate Clarifier #1

Outfall A01 shall not be utilized until the main treatment facility is receiving its design maximum flow *(Flow in excess of 15,268 gpm).
Outfall C01 shall not be utilized until the main treatment facility is receiving its design maximum flow *(Flow in excess of 15,268 gpm).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	CONCENTRATION LIMITS (mg/L)			
Parameter	Monthly Average	Weekly Average	Sample Frequency	Sample Type
Total Flow (MG)			Daily When Discharging	Continuous**
BOD_5	Monitor Only		Daily When Discharging	Grab
Suspended Solids	Monitor Only		Daily When Discharging	Grab
Ammonia Nitrogen (as N)	Monitor Only		Daily When Discharging	Grab
Total Phosphorus (as P)	Monitor Only		Daily When Discharging	Grab

*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

**Estimates based on pump run time may be utilized to determine total flow.

The duration of each A01 and C01 discharge and rainfall event (i.e., start and ending time) including rainfall intensity shall be provided in the comment section of the DMR. The main treatment plant facility flow at the time that A01 and C01 Excess Flow Facilities are first utilized shall be reported in the comment section of the DMR in gallons per minute (gpm).

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.
Report the number of days of discharge in the comments section of the DMR.
BOD_5 and Suspended Solids shall be reported on the DMR as a daily maximum value.
Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.
Total Phosphorus shall be reported on the DMR as a monthly average and daily maximum value.

NPDES Permit No. IL0028380

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 Combined Discharge From Outfall A01, B01, and C01 Outfalls*

From the effective date of this permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	CONCENTRATION LIMITS (mg/L)			
Parameter	Monthly Average	Weekly Average	Sample Frequency	Sample Type
Total Flow (MG)			Daily When A01 or C01 is Discharging	Continuous**
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL		Daily When A01 or C01 is Discharging	Grab
BOD_5[(1)]	30	45	Daily When A01 or C01 is Discharging	Grab
Suspended Solids[(1)]	30	45	Daily When A01 or C01 is Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units		Daily When A01 or C01 is Discharging	Grab
Chlorine Residual	0.75		Daily When A01 or C01 is Discharging	Grab
Ammonia Nitrogen (as N)***	Monitor Only		Daily When A01 or C01 is Discharging	Grab
Total Phosphorus (as P)	Monitor Only		Daily When A01 or C01 is Discharging	Grab
Dissolved Oxygen***	Monitor Only		Daily When A01 or C01 is Discharging	Grab

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.
Report the number of days of discharge in the comments section of the DMR.
BOD_5 and Suspended Solids shall be reported on the Discharge Monitoring Report (DMR) as a monthly and weekly average concentration.
pH shall be reported on the Discharge Monitoring Report (DMR) as a minimum and a maximum.
Fecal Coliform shall be reported on the Discharge Monitoring Report (DMR) as Daily Maximum.
Chlorine Residual shall be reported on the Discharge Monitoring Report (DMR) as a monthly average concentration.
Total Phosphorus shall be reported on the DMR as a monthly average and maximum value.

*These limitations for this outfall are effective when flows to the main treatment plant are greater than 15,268 gpm and either or both excess flow facilities are in operation. An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

**Estimates based on pump run time may be utilized to determine total flow.

***See Special Condition 18.

Samples taken in compliance with the effluent monitoring requirements for this outfall shall be taken at a point after the excess flow effluent combines with A01 Discharge to the East Branch of the DuPage River but prior to entry into the receiving stream. Flow for each Outfall (A01 and/or C01) shall be estimated prior to combining with the discharge from Outfall B01.

[1] BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent $CBOD_5$ concentration to determine the effluent BOD_5 concentration. Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

NPDES Permit No. IL0028380

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 Combined Discharge From Outfall A01, B01, and C01 Outfalls (continued)

A monthly average value for ammonia shall be computed for each month that A01 or C01 discharges beginning one month after the effective date of the permit. A monthly average concentration shall be determined by combining data collected from A01, C01, and B01 (only B01 data from days when A01 or C01 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. Ammonia Nitrogen shall also be reported on the DMR as a maximum value.

A monthly and weekly average value for Dissolved Oxygen (DO) shall be computed for each month that A01 or C01 discharges beginning one month after the effective date of the permit. The monthly and weekly average concentrations for 001 shall be determined by combining data collected from A01, C01 and B01 (only B01 data from days when A01 or C01 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. DO shall also be reported on the DMR as a minimum value.

NPDES Permit No. IL0028380

Effluent Limitations, Monitoring, and Reporting

Final

Discharge Number(s) and Name(s): 002 Mixing Chamber Overflow Weir to St. Joseph Creek*, **

From the effective date of this permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	CONCENTRATION LIMITS (mg/L)			
Parameter	Monthly Average	Weekly Average	Sample Frequency	Sample Type
Total Flow (MG)			Daily When Discharging	Continuous
BOD_5(1)	30	45	Daily When Discharging	Grab
Suspended Solids(1)	30	45	Daily When Discharging	Grab
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL		Daily When Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units		Daily When Discharging	Grab
Chlorine Residual	0.75		Daily When Discharging	Grab
Ammonia Nitrogen (as N)***	Monitor Only		Daily When Discharging	Grab
Total Phosphorus (as P)	Monitor Only		Daily When Discharging	Grab
Dissolved Oxygen***	Monitor Only		Daily When Discharging	Grab

*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

**Outfall 002 becomes operational when the combined effluent from B01 Outfall, A01 Excess Flow, and C01 Intermediate Clarifier #1 Outfalls exceed 30 MGD (the hydraulic capacity of the outfall pipe to the East Branch of the DuPage River).

Total flow in million gallons for 002 shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.
Report the number of days of discharge in the comments section of the DMR.
BOD_5 and Suspended Solids shall be reported on the Discharge Monitoring Report (DMR) as a monthly and weekly average concentration.
pH shall be reported on the Discharge Monitoring Report (DMR) as a minimum and a maximum.
Fecal Coliform shall be reported on the Discharge Monitoring Report (DMR) as Daily Maximum.
Chlorine Residual shall be reported on the Discharge Monitoring Report (DMR) as a monthly average concentration.
Total Phosphorus shall be reported on the DMR as a monthly average and maximum value.
Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.
Dissolved oxygen shall be reported on the DMR as a minimum value.

[1] BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent $CBOD_5$ concentration to determine the effluent BOD_5 concentration. Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

***See Special Condition 18.

NPDES Permit No. IL0028380

Effluent Limitations, Monitoring, and Reporting

Final

Discharge Number(s) and Name(s): 003 Excess Flow Outfall to St. Joseph Creek*, **

From the effective date until the expiration date of the permit, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	CONCENTRATION LIMITS (mg/L)			
Parameter	Monthly Average	Weekly Average	Sample Frequency	Sample Type
Total Flow (MG)			Daily When Discharging	Continuous
BOD_5(1)	30	45	Daily When Discharging	Grab
Suspended Solids(1)	30	45	Daily When Discharging	Grab
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL		Daily When Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units		Daily When Discharging	Grab
Chlorine Residual	0.75		Daily When Discharging	Grab
Ammonia Nitrogen (as N)***	Monitor Only		Daily When Discharging	Grab
Total Phosphorus (as P)	Monitor Only		Daily When Discharging	Grab
Dissolved Oxygen***	Monitor Only		Daily When Discharging	Grab

* An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF) or the design capacity of the excess flow facilities is not met. The explanation shall identify the reasons the main facility or excess flow facilities are at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

**These limitations for this outfall are effective when flows to the main treatment plant are greater than 15,268 gpm and the excess flow facilities are in operation. Flow shall be estimated prior to discharge.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.
Report the number of days of discharge in the comments section of the DMR.
BOD_5 and Suspended Solids shall be reported on the Discharge Monitoring Report (DMR) as a monthly and weekly average concentration.
pH shall be reported on the Discharge Monitoring Report (DMR) as a minimum and a maximum.
Fecal Coliform shall be reported on the Discharge Monitoring Report (DMR) as Daily Maximum.
Chlorine Residual shall be reported on the Discharge Monitoring Report (DMR) as a monthly average concentration.
Total Phosphorus shall be reported on the DMR as a monthly average and maximum value.
Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.
Dissolved oxygen shall be reported on the DMR as a minimum value.

[1] BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent $CBOD_5$ concentration to determine the effluent BOD_5 concentration. Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

***See Special Condition 18.

NPDES Permit No. IL0028380

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency	Sample Type
Flow (MGD)	Continuous	
BOD_5	2 Days/Week and Daily When Outfalls A01, C01, 002 or 003 are Discharging	Composite
Suspended Solids	2 Days/Week and Daily When Outfalls A01, C01, 002 or 003 are Discharging	Composite
Total Phosphorus (as P)	1 Day/Month	Composite
Total Nitrogen (as N)	1 Day/Month	Composite

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD_5 and Suspended Solids shall be reported on the Discharge Monitoring Report (DMR) as a monthly average concentration.

Total Phosphorus and Total Nitrogen shall be reported on the Discharge Monitoring Report (DMR) as a maximum value.

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

SPECIAL CONDITION 3. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice.

SPECIAL CONDITION 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302 and 303.

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) electronic forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, https:www2.illinois.gov/epa/topics/water-quality/surface-water/netdmr/pages/quick-answer-guide.aspx.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees that have been granted a waiver shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

SPECIAL CONDITION 8. Samples taken in compliance with the effluent monitoring requirements shall be taken:

A. For Outfall Number A01 and C01: Samples for all effluent limitations and monitoring parameters applicable to Outfalls A01 and C01 shall be taken at a point representative of the discharge from Outfalls A01 or C01 and shall be taken at a point prior to admixture with discharges from Outfall B01.

B. For Outfall Number 002 and 003 - Samples for all parameters shall be taken at a point representative of the discharge but prior to entry into the receiving stream.

C. For Outfall Number B01 - During dry weather flows (no excess flow discharge), samples shall be taken at a point representative of the flows but prior to entry into the receiving stream. During periods when there is a discharge from Outfalls A01 and/or C01 all effluent limitations and monitoring parameter applicable to B01 shall be representative of the discharges from B01 but prior to admixture with discharges from Outfalls A01 and C01.

D. For Outfall Number 001: Samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be taken at a point representative of the discharge from Outfall 001 but prior to entry into the receiving stream and shall include all flow from Outfalls A01, B01, and C01. On days when there are no discharges through Outfall A01 and C01, samples for discharges through Outfall 001 shall can be taken at the location of sampling for Outfall B01, and these samples shall be entered as sampled data into monthly DMR calculations for Outfall 001. When there are discharges from excess flow facilities, samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be representative of the discharge from Outfall 001, and shall be taken at a point after flows from Outfalls A01, B01, and C01 are mixed.

Special Conditions

SPECIAL CONDITION 9. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study , an approved trading program or upon completion of an alternate East Branch of DuPage River Water Quality Study.

SPECIAL CONDITION 10. This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 11. Fecal Coliform limits for Discharge Number B01 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

The total residual chlorine limit is applicable at all times. If the Permittee is chlorinating for any purpose during the months of November through April, sampling is required on a daily grab basis. Sampling frequency for the months of May through October shall be as indicated on effluent limitations, monitoring and reporting page of this Permit.

SPECIAL CONDITION 12.

A. Publicly Owned Treatment Works (POTW) Pretreatment Program General Provisions

1. The Permittee shall implement and enforce its approved Pretreatment Program which was approved on June 28, 1985 and all approved subsequent modifications thereto. The Permittee shall maintain legal authority adequate to fully implement the Pretreatment Program in compliance with Federal (40 CFR 403), State, and local laws and regulations. All definitions in this section unless specifically otherwise defined in this section, are those definitions listed in 40 CFR 403.3. U.S. EPA Region 5 is the Approval Authority for the administration of pretreatment programs in Illinois. The Permittee shall:

    a. Develop and implement procedures to ensure compliance with the requirements of a pretreatment program as specified in 40 CFR 403.8(f)(2)

    b. Carry out independent inspection and monitoring procedures at least once per year, which will determine whether each significant industrial user (SIU) is in compliance with applicable pretreatment standards

    c. Evaluate whether each SIU needs a slug control plan or other action to control slug discharges. If needed, the SIU slug control plan shall include the items specified in 40 CFR 403.8(f)(2)(vi). For IUs identified as significant prior to November 14, 2005, this evaluation must have been conducted at least once by October 14, 2006; additional SIUs must be evaluated within 1 year of being designated an SIU;

    d. Update its inventory of Industrial Users (IUs) at least annually and as needed to ensure that all SIUs are properly identified, characterized, and categorized;

    e. Receive and review self monitoring and other IU reports to determine compliance with all pretreatment standards and requirements, and obtain appropriate remedies for noncompliance by any IU with any pretreatment standard and/or requirement;

    f. Investigate instances of noncompliance, collect and analyze samples, and compile other information with sufficient care as to produce evidence admissible in enforcement proceedings, including judicial action;

    g. Require development, as necessary, of compliance schedules by each industrial user to meet applicable pretreatment standards; and,

    h. Maintain an adequate revenue structure and staffing level for continued operation of the Pretreatment Program.

2. The Permittee shall issue/reissue permits or equivalent control mechanisms to all SIUs prior to expiration of existing permits or prior to commencement of discharge in the case of new discharges. The permits at a minimum shall include the elements listed in 40 CFR § 403.8(f)(1)(iii)(B).

3. The Permittee shall develop, maintain, and enforce, as necessary, local limits to implement the general and specific prohibitions in 40 CFR § 403.5 which prohibit the introduction of any pollutant(s) which cause pass through or interference and the introduction of specific pollutants to the waste treatment system from any source of nondomestic discharge.

    a. General prohibitions. A user may not introduce into a POTW any pollutant(s) which cause pass through or interference.

    b. Specific prohibitions. In addition, the following pollutants shall not be introduced into a POTW:

        i. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed

cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;

ii. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;

iii. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;

iv. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.

v. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 °C (104 °F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.

vi. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

vii. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

viii. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

4. In addition to the general limitations expressed in Paragraph 3 above, applicable pretreatment standards must be met by all industrial users of the POTW. These limitations include specific standards for certain industrial categories as determined by Section 307(b) and (c) of the Clean Water Act, State limits, or local limits, whichever are more stringent.

5. The USEPA and IEPA individually retain the right to take legal action against any industrial user and/or the POTW for those cases where an industrial user has failed to meet an applicable pretreatment standard by the deadline date regardless of whether or not such failure has resulted in a permit violation.

6. The Permittee shall establish agreements with all contributing jurisdictions, as necessary, to enable it to fulfill its requirements with respect to all IUs discharging to its system.

7. Unless already completed, the Permittee shall within six (6) months of the effective date of this Permit submit to USEPA and IEPA a proposal to modify and update its approved Pretreatment Program to incorporate Federal revisions to the general pretreatment regulations. The proposal shall include all changes to the approved program and the sewer use ordinance which are necessary to incorporate the revisions of the Pretreatment Streamlining Rule (which became effective on November 14, 2005), which are considered required changes, as described in the Pretreatment Streamlining Rule Fact Sheet 2.0: Required changes, available at: http://cfpub.epa.gov/npdes/whatsnew.cfm?program_id=3. This includes any necessary revisions to the Permittee's Enforcement Response Plan (ERP).

8. Within 6 months from the effective date of this permit, the Permittee shall conduct a technical re-evaluation of its local limitations consistent with U.S. EPA's Local Limits Development Guidance (July 2004), and submit the evaluation and any proposed revisions to its local limits to IEPA and U.S. EPA Region 5 for review and approval. U.S. EPA Region 5 will request Permittee to submit the evaluation and any proposed revisions to its local limits on the spreadsheet "Region 5 Pretreatment Limit Spreadsheet Illinois/Indiana" found at: https://www.epa.gov/npdes-permits/illinois-npdes-permits. To demonstrate technical justification for new local industrial user limits or justification for retaining existing limits, the following information must be submitted to U.S. EPA:

   a. Total plant flow
   b. Domestic/commercial pollutant contributions for pollutants of concern
   c. Industrial pollutant contributions and flows
   d. Current POTW pollutant loadings, including loadings of conventional pollutants
   e. Actual treatment plant removal efficiencies, as a decimal (primary, secondary, across the wastewater treatment plant)
   f. Safety factor to be applied
   g. Identification of applicable criteria:
      i. NPDES permit conditions
         •Specific NPDES effluent limitations
         •Water-quality criteria
         •Whole effluent toxicity requirements
         •Criteria and other conditions for sludge disposal
      ii. Biological process inhibition

- •Nitrification
- •Sludge digester

iii. Collection system problems

h. The Permittee's sludge disposal methods (land application, surface disposal, incineration, landfill)
i. Sludge flow to digester
j. Sludge flow to disposal
k. % solids in sludge to disposal, not as a decimal
l. % solids in sludge to digester, not as a decimal
m. Plant removal efficiencies for conventional pollutants
n. If revised industrial user discharge limits are proposed, the method of allocating available pollutants loads to industrial users
o. A comparison of maximum allowable headworks loadings based on all applicable criteria listed in g, above
p. Pollutants that have caused:
   i. Violations or operational problems at the POTW, including conventional pollutants
   ii. Fires and explosions
   iii. Corrosion
   iv. Flow obstructions
   v. Increased temperature in the sewer system
   vi. Toxic gases, vapors or fumes that caused acute worker health and safety problems
   vii. Toxicity found through Whole Effluent Toxicity testing
   viii. Inhibition
q. Pollutants designated as "monitoring only" in the NPDES permit
r. Supporting data, assumptions, and methodologies used in establishing the information a through q above

The Permittee's Pretreatment Program has been modified to incorporate a Pretreatment Program Amendment approved by U.S. EPA on October 22, 1997. The amendment became effective on the date of approval and is a fully enforceable provision of your Pretreatment Program.

Modifications of your Pretreatment Program shall be submitted in accordance with 40 CFR § 403.18, which established conditions for substantial and nonsubstantial modifications. All requests should be sent in electronic format to r5npdes@epa.gov, attention: NPDES Program Branch.

B. Reporting and Records Requirements

1. The Permittee shall provide an annual report briefly describing the permittee's pretreatment program activities over the previous calendar year. Permittees who operate multiple plants may provide a single report providing all plant-specific reporting requirements are met. Such report shall be submitted no later than April 28th of each year to USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: Water Enforcement & Compliance Assurance Branch, and shall be in the format set forth in IEPA's POTW Pretreatment Report Package which contains information regarding:

   a. An updated listing of the Permittee's significant industrial users, indicating additions and deletions from the previous year, along with brief explanations for deletions. The list shall specify which categorical Pretreatment standards, if any, are applicable to each Industrial User.

   b. A descriptive summary of the compliance activities including numbers of any major enforcement actions, (i.e., administrative orders, penalties, civil actions, etc.), and the outcome of those actions. This includes an assessment of the compliance status of the Permittee's industrial users and the effectiveness of the Permittee's Pretreatment Program in meeting its needs and objectives.

   c. A description of all substantive changes made to the Permittee's Pretreatment Program. Changes which are "substantial modifications" as described in 40 CFR § 403.18(c) must receive prior approval from the USEPA.

   d. Results of sampling and analysis of POTW influent, effluent, and sludge.

   e. A summary of the findings from the priority pollutants sampling. As sufficient data becomes available the IEPA may modify this Permit to incorporate additional requirements relating to the evaluation, establishment, and enforcement of local limits for organic pollutants. Any permit modification is subject to formal due process procedures pursuant to State and Federal law and regulation. Upon a determination that an organic pollutant is present that causes interference or pass through, the Permittee shall establish local limits as required by 40 CFR § 403.5(c).

2. The Permittee shall maintain all pretreatment data and records for a minimum of three (3) years. This period shall be extended during the course of unresolved litigation or when requested by the IEPA or the Regional Administrator of USEPA. Records shall be available to USEPA and the IEPA upon request.

3. The Permittee shall establish public participation requirements of 40 CFR 25 in implementation of its Pretreatment Program. The Permittee shall at least annually, publish the names of all IU's which were in significant noncompliance (SNC), as defined by 40 CFR § 403.8(f)(2)(viii), in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the Permittee or based on any more restrictive definition of SNC that the POTW may be using.

4. The Permittee shall provide written notification to the USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: NPDES Programs Branch and to the Deputy Counsel for the Division of Water Pollution Control, IEPA, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 within five (5) days of receiving notice that any Industrial User of its sewage treatment plant is appealing to the Circuit Court any condition imposed by the Permittee in any permit issued to the Industrial User by Permittee. A copy of the Industrial User's appeal and all other pleadings filed by all parties shall be mailed to the Deputy Counsel within five (5) days of the pleadings being filed in Circuit Court.

C. Monitoring Requirements

1. The Permittee shall monitor its influent, effluent and sludge and report concentrations of the following parameters on Discharge Monitoring Report (DMR) electronic forms, unless otherwise specified by the IEPA. Monitoring shall begin three (3) months from the effective date of this permit. Samples shall be taken at semi-annual intervals at the indicated reporting limit or better and consist of a 24-hour composite unless otherwise specified below. Sludge samples shall be taken of final sludge and consist of a grab sample reported on a dry weight basis.

STORET CODE	PARAMETER	Minimum reporting limit
01097	Antimony	0.07 mg/L
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01012	Beryllium	0.005 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hex) (grab not to exceed 24 hours)*	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00720	Cyanide (total) (grab)****	5.0 µg/L
00722	Cyanide (grab)*(available ***** or amenable to chlorination)****	5.0 µg/L
00951	Fluoride*	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)*	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (effluent grab)***	1.0 ng/L**
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)*	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01059	Thallium	0.3 mg/L
01092	Zinc	0.025 mg/L

* Influent and effluent only
**1 ng/L = 1 part per trillion.
***Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E, other approved methods may be used for influent (composite) and sludge.
****Analysis for cyanide (available or amenable to chlorination) is only required if cyanide (total) is detected at or above the minimum reporting limit.
*****USEPA Method OIA – 1677 or Standard Method SM 4500-CN G.

The minimum reporting limit for each parameter is specified by Illinois EPA as the regulatory authority.

The minimum reporting limit for each parameter shall be greater than or equal to the lowest calibration standard and within the acceptable calibration range of the instrument.

The minimum reporting limit is the value below which data are to be reported as non-detects.

The statistically-derived laboratory method detection limit for each parameter shall be less than the minimum reporting limit required for that parameter.

All sample containers, chemical and thermal preservation, holding times, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR Part 136.

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined including all oxidation states. Where constituents are commonly measured as other than total, the phase is so indicated.

2. The Permittee shall conduct an analysis for the one hundred and ten (110) organic priority pollutants identified in 40 CFR 122 Appendix D, Table II as amended. This monitoring shall be done annually and reported on monitoring report forms provided by the IEPA and shall consist of the following:

   a. The influent and effluent shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. The sampling shall be done during a day when industrial discharges are expected to be occurring at normal to maximum levels.

      Samples for the analysis of acid and base/neutral extractable compounds shall be 24-hour composites.

      Five (5) grab samples shall be collected each monitoring day to be analyzed for volatile organic compounds. A single analysis for volatile pollutants (Method 624) may be run for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than one (1) mL of each grab included in the composite.

      Wastewater samples must be handled, prepared, and analyzed by GC/MS in accordance with USEPA Methods 624 and 625 of 40 CFR 136 as amended.

   b. The sludge shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. A sludge sample shall be collected concurrent with a wastewater sample and taken as final sludge.

      Sampling and analysis shall conform to USEPA Methods 624 and 625 unless an alternate method has been approved by IEPA.

   c. Sample collection, preservation and storage shall conform to approved USEPA procedures and requirements.

3. In addition, the Permittee shall monitor any new toxic substances as defined by the Clean Water Act, as amended, following notification by the IEPA or U.S. EPA.

4. Permittee shall report any noncompliance with effluent or water quality standards in accordance with Standard Condition 12(f) of this Permit.

5. Analytical detection limits shall be in accordance with 40 CFR 136. Minimum detection limits for sludge analyses shall be in accordance with 40 CFR 503.

D. Pretreatment Reporting

US EPA Region 5 is the approval Authority for administering the pretreatment program in Illinois. All requests for modification of pretreatment program elements should be submitted in redline/strikeout electronic format and must be sent to US EPA at r5npdes@epa.gov.

Permittee shall upon notice from US EPA, modify any pretreatment program element found to be inconsistent with 40 CFR 403.

SPECIAL CONDITION 13. During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on forms provided by IEPA titled “Fiscal Report Form For NPDES Permittees”.

Special Conditions

SPECIAL CONDITION 14. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) B01.

Biomonitoring

A. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:

   1. Fish 96-hour static LC_{50} Bioassay using fathead minnows (*Pimephales promelas*).

   2. Invertebrate 48-hour static LC_{50} Bioassay using *Ceriodaphnia*.

B. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Sample collection and testing must be conducted in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit. When possible, bioassay sample collection should coincide with sample collection for metals analysis or other parameters that may contribute to effluent toxicity.

C. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be mailed to IEPA, Bureau of Water, Compliance Assurance Section or emailed to EPA.PrmtSpecCondtns@Illinois.gov within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.

D. Toxicity – Should a bioassay result in toxicity to >20% of organisms tested in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within one (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatments, the Permittee must contact the IEPA within one (1) day of the results becoming available to the Permittee and begin the toxicity identification and reduction evaluation process as outlined below.

E. Toxicity Identification and Reduction Evaluation - Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatment, the Permittee must contact the IEPA within one (1) day of the results becoming available to the Permittee and begin the toxicity identification evaluation process in accordance with Methods for Aquatic Toxicity Identification Evaluations, EPA/600/6-91/003. The IEPA may also require, upon notification, that the Permittee prepare a plan for toxicity reduction evaluation to be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, which shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

   The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 15. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for U.S. EPA and IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 25 for a period of at least five (5) years from the date of this Permit.

Special Conditions

If the Permittee monitors any pollutant more frequently than required by this permit or the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

The Permittee shall comply with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

Monitoring reports for sludge shall be reported on the form titled “Sludge Management Reports” to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Mail Code #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 16. The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement back-ups and ensuring that overflows or back-ups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. Overflows from sanitary sewers are expressly prohibited by this permit and by Ill. Adm. Code 306.304. As part of the process to ultimately achieve compliance through the elimination of and mitigating the adverse impacts of any such overflows if they do occur, the Permittee shall (A) identify and report to IEPA all SSOs that do occur, and (B) update the existing Capacity, Management, Operations, and Maintenance (CMOM) plan at least annually and maintain it at the facility for review during Agency Field Operations Section inspections. The Permittee shall submit copies of the CMOM to the IEPA upon written request. The Permittee shall modify the Plan to incorporate any comments that it receives from IEPA and shall implement the modified plan as soon as possible. The Permittee should work as appropriate, in consultation with affected authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee’s facilities are not capable of conveying and treating the flow for which they are designed.

The CMOM plan shall include the following elements:

A. Measures and Activities:

1. A complete map and system inventory for the collection system owned and operated by the Permittee;
2. Organizational structure; budgeting; training of personnel; legal authorities; schedules for maintenance, sewer system cleaning, and preventative rehabilitation; checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
3. Documentation of unplanned maintenance;
4. An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; use flow monitoring and/or sewer hydraulic modeling, as necessary;
5. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee. Include preventative maintenance programs to prevent and/or eliminate collection system blockages from roots or grease, and prevent corrosion or negative effects of hydrogen sulfide which may be generated within collection system;
6. Operational control, including documented system control procedures, scheduled inspections and testing, list of scheduled frequency of cleaning (and televising as necessary) of sewers;
7. The Permittee shall develop and implement an Asset Management strategy to ensure the long-term sustainability of the collection system. Asset Management shall be used to assist the Permittee in making decisions on when it is most appropriate to repair, replace or rehabilitate particular assets and develop long-term funding strategies; and
8. Asset Management shall include but is not limited to the following elements:
    a. Asset Inventory and State of the Asset;
    b. Level of Service;
    c. Critical Asset Identification;
    d. Life Cycle Cost; and
    e. Long-Term Funding Strategy.

B. Design and Performance Provisions:

1. Monitor the effectiveness of CMOM;
2. Upgrade the elements of the CMOM plan as necessary; and
3. Maintain a summary of CMOM activities.

C. Overflow Response Plan:

1. Know where overflows and back-ups within the facilities owned and operated by the Permittee occur;
2. Respond to each overflow or back-up to determine additional actions such as clean up; and
3. Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow/infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan.
4. Identify the root cause of the overflow or basement backup, and document to files;
5. Identify actions or remediation efforts to reduce risk of reoccurrence of these overflows or basement backups in the future, and document to files.

D. System Evaluation Plan:

1. Summary of existing SSO and Excessive I/I areas in the system and sources of contribution;
2. Evaluate plans to reduce I/I and eliminate SSOs;
3. Evaluate the effectiveness and performance in efforts to reduce excessive I/I in the collection system;
4. Special provisions for Pump Stations and force mains and other unique system components; and
5. Construction plans and schedules for correction.

E. Reporting and Monitoring Requirements:

1. Program for SSO detection and reporting; and
2. Program for tracking and reporting basement back-ups, including general public complaints.

F. Third Party Notice Plan:

1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
3. Identifies who shall receive the notification;
4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
5. Includes a description of the lines of communication; and
6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

For additional information concerning USEPA CMOM guidance and Asset Management please refer to the following web site addresses. http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf and http://water.epa.gov/type/watersheds/wastewater/upload/guide_smallsystems_assetmanagement_bestpratices.pdf

SPECIAL CONDITION 17. DuPage River/Salt Creek Special Requirements

A. The Permittee shall participate in the DuPage River Salt Creek Workgroup (DRSCW). The Permittee shall work with other watershed members of the DRSCW to determine the most cost-effective means to remove dissolved oxygen (DO) and offensive condition impairments in the DRSCW watersheds.

B. The Permittee shall ensure that the following projects and activities set out in the Revised DRSCW Implementation Plan (June, 2021), are completed (either by the permittee or through the DRSCW) by the scheduled dates set forth below; and that the short term objectives are achieved for each by the time frames identified below:

Project Name	**Completion Date**	**Short Term Objectives**	**Long Term Objectives**
Oak Meadows Golf Course dam removal	December 31, 2016 (Completed)	Improve DO	Improve fish passage

Oak Meadows Golf Course stream restoration	December 31, 2017 (Completed)	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi
Fawell Dam Modification	December 31, 2022	Modify dam to allow fish passage	Raise fiBi upstream of structure
Spring Brook Restoration and dam removal	December 31, 2020 (Completed)	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi
Fullersburg Woods dam modification concept plan development	December 31, 2016 (Completed)	Identify conceptual plan for dam modification and stream restoration	Build consensus among plan stakeholders
Fullersburg Woods dam modification	December 31, 2023	Improve DO, improve aquatic habitat (QHEI)	Raise miBi and fiBi
Fullersburg Woods dam modification area stream restoration	December 31, 2023	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi
West Branch Physical Enhancement	December 31, 2023	Improve aquatic habitat (QHEI)	Raise miBi and fiBi
Southern East Branch Stream Enhancement	December 31, 2024	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi
QUAL 2Kw West Branch, East Branch and Salt Creek	December 31, 2023	Collect new baseline data and update model	Quantify Improvements in watershed. Prioritize DO Improvement projects for years beyond 2024.
NPS Phosphorus Feasibility Analysis	December 31, 2021	Assess NPS performance from reductions leaf litter and street sweeping	Reduce NPS contributions to lowest practical levels
East Branch Phase II	December 31, 2028	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and FiBi
Lower Salt Creek Phase 2	December 31, 2028	Improve aquatic habitat (QHEI), Remove fish barrier, reduce inputs of nutrients and sediment	Raise miBi and fiBi
West Branch Restoration Project	December 31, 2028	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi

C. The Permittee shall participate in implementation of a watershed Chloride Reduction Program, either directly or through the DRSCW. The program shall work to decrease DRSCW watershed public agency chloride application rates used for winter road safety, with the objective of decreasing watershed chloride loading. An annual report on the annual implementation of the program identifying the practices deployed, chloride application rates, estimated reductions achieved, analyses of watershed chloride loads, precipitation, air temperature conditions and relative performance compared to a baseline condition shall be submitted electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0028380 Special Condition 17.C" as the subject of the email and posted to the DRSCW's

website by March 31 of each year. The annual report shall reflect the Chloride Abatement Program performance for the preceding year (example: 2019-20 winter season report shall be submitted no later than March 31, 2021). The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees and may be submitted as part of a combined annual report with paragraph D below.

D. The Permittee shall submit an annual progress report on the projects listed in the table of paragraph B above. The report shall be submitted electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0028380 Special Condition 17.D" as the subject of the email and posted to the DRSCW's website by March 31 of each year. The report shall include project implementation progress. The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.

E. The Permittee shall maintain and implement any recommendations from its Phosphorus Discharge Optimization Plan in accordance with the schedule set forth in the Plan. Annual progress reports on the optimization of the existing treatment facilities shall be submitted electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0028380 Special Condition 17.E" as the subject of the email and posted to the permittees website by March 31 of each year. If the permittee's plan does not already include a schedule, the permittee shall include a schedule for the implementation of any optimization measures recommended by the plan in the permittee's annual progress report due the March 31 one year after the permit becomes effective. As part of the plan, the Permittee shall continue to evaluate a range of measures for reducing phosphorus discharges from the treatment plant, including possible source reduction measures, operational improvements, and minor facility modifications that will optimize reductions in phosphorus discharges from the wastewater treatment facility. The Permittee's evaluation shall include, but not be limited to, an evaluation of the following optimization measures:

1. WWTF influent reduction measures.
    a. Evaluate the phosphorus reduction potential of users.
    b. Determine which sources have the greatest opportunity for reducing phosphorus (i.e., industrial, commercial, institutional, municipal and others).
        i. Determine whether known sources (i.e., restaurant and food preparation) can adopt phosphorus minimization and water conservation plans.
        ii. Evaluate implementation of local limits on influent sources of excessive phosphorus.

2. WWTF effluent reduction measures.
    a. Reduce phosphorus discharges by optimizing existing treatment processes without causing non-compliance with permit effluent limitations or adversely impacting stream health.
        i. Adjust the solids retention time for biological phosphorus removal.
        ii. Adjust aeration rates to reduce dissolved oxygen and promote biological phosphorus removal.
        iii. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
        iv. Minimize impact on recycle streams by improving aeration within holding tanks.
        v. Adjust flow through existing basins to enhance biological nutrient removal.
        vi. Increase volatile fatty acids for biological phosphorus removal.

F. Total phosphorus in the effluent shall be limited as follows:

1. If the Permittee will use chemical precipitation to achieve the limit, the effluent limitation shall be 1.0 mg/L on a monthly average basis, effective August 1, 2028, or in accordance with the implementation schedule included in the Nutrient Implementation Plan unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program or limit pursuant to paragraphs F.3 thru F.8 below.

2. If the Permittee will primarily use biological phosphorus removal to achieve the limit, the effluent limitation shall be 1.0 mg/L monthly average to be effective August 1, 2029, or in accordance with the implementation schedule included in the Nutrient Implementation Plan unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program or limit pursuant to paragraphs F.3 thru F.8 below.

3. The Permittee demonstrates that the Limit is not technologically feasible; or

4. The Permittee demonstrates the Limit would result in substantial and widespread economic or social impact. Substantial and widespread economic impacts must be demonstrated using applicable USEPA guidance, including but not limited to any of the following documents: 1. Interim Economic Guidance for Water Quality Standards, March 1995, EPA-823-95-002; 2. Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development, February 1997, EPA-832—97-004; 3. Financial Capability Assessment Framework for Municipal Clean Water Act Requirements, November 24, 2014; or

5. If the Nutrient Implementation Plan determines that a greater phosphorus reduction is necessary, then the Permittee shall meet the phosphorus limit identified in the Nutrient Implementation Plan in accordance with the schedule set out therein, prioritized among all watershed needs; or

6. If the DRSCW has developed and implemented a trading program for POTWs in the DRSCW watersheds, providing for reallocation of allowed phosphorus loadings between two or more POTWs in the DRSCW and Lower DuPage Watershed

Coalition watersheds, that delivers the same results of overall watershed phosphorus point-source reduction and loading anticipated from the uniform application of the applicable 1.0 mg/L monthly average effluent limitation, or other allocation identified in the Nutrient Implementation Plan, whichever is more stringent, among the POTW permits in the DRSCW watersheds and removes DO and offensive condition impairments and meets the applicable dissolved oxygen criteria in 35 Ill. Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 Ill. Adm. Code 302.203.; or

7. If the DRSCW has demonstrated and implemented an alternate means of reducing watershed phosphorus loading to a comparable result that removes DO and offensive condition impairments and meets the applicable dissolved oxygen criteria in 35 Ill. Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 Ill. Adm. Code 302.203.; or

8. If the Limit is demonstrated not to be technologically (e.g., no space available) or economically feasible, which shall be determined by an economic feasibility analysis by the date herein stipulated, but is feasible within a long timeline, then the permit shall include a compliance schedule requiring the discharger to comply with the phosphorus effluent limit as soon as possible, consistent with 40 C.F.R. § 122.47 (1), made applicable to Illinois at 40 C.F.R. § 123.25 (a)(18).

G. The Permittee shall monitor the wastewater effluent, consistent with the monitoring requirements on Page 2 of this permit, for total phosphorus, dissolved phosphorus, nitrate/nitrite, total Kjeldahl nitrogen (TKN), ammonia, total nitrogen (calculated), alkalinity and temperature at least once a month. The Permittee shall monitor the wastewater influent for total phosphorus and total nitrogen at least once a month. The results shall be submitted on electronic DMRs (NetDMRs) to the Agency unless otherwise specified by the Agency.

H. The Permittee shall submit electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0028380 Special Condition 17.H" as the subject of the email and post to the DRSCWs website by December 31, 2023 a Nutrient Implementation Plan (NIP) for the DRSCW watersheds that identifies phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 Ill. Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 Ill. Adm. Code 302.203. The NIP shall also include a schedule for implementation of the phosphorus input reductions and other measures. The Permittee may work cooperatively with the DRSCW to prepare a single NIP that is common among DRSCW permittees. Progress reports shall be submitted every year until completion and submission of the NIP. The DRSCW may prepare a single progress report for all DRSCW permittees and may be submitted as part of a combined annual report with paragraph D above. The Agency will renew or modify the NPDES permit as necessary to incorporate NIP requirements.

SPECIAL CONDITION 18. The Agency shall consider all monitoring data submitted by the discharger in accordance with the monitoring requirements of this permit for all parameters, including but not limited to data pertaining to ammonia and dissolved oxygen for discharges from Discharge Number 001, 002, or 003 to determine whether the discharges are at levels which cause, have the reasonable potential to cause or contribute to exceedances of water quality standards; and, if so, to develop appropriate water quality based effluent limitations. If the discharger wants the Agency to consider mixing when determining the need for and establishment of water quality based effluent limitations, the discharger shall submit a study plan on mixing to the Agency for the Agency's review.

SPECIAL CONDITION 19. Schedule of Compliance with Final Effluent Limitation

Project Description: Total Residual Chlorine daily maximum limit of 0.038 mg/L

The Permittee shall achieve compliance with the final effluent limitations as specified in this Permit for Discharge Number(s) B01 by completion of the project described above in accordance with the following compliance schedule:

ITEM	COMPLETION DATE
Submit Progress Report	6 Months from effective date of this Permit
Start Construction	12 Months from effective date of this Permit
Status Report	18 Months from effective date of this Permit
Total Residual Chlorine	24 Months from effective date of this Permit

From the effective date of this permit until 24 months after the effective date of this permit, the daily maximum total residual chlorine shall not exceed 0.05 mg/L

This Permit may be modified, with Public Notice, to include revised compliance dates set out in this Permit.

Special Conditions

In addition, the IEPA may initiate a modification of the compliance schedule set out in this Permit at any time, to include other dates which are necessary to carry out the provisions of the Illinois Environmental Protection Act, the Federal Clean Water Act or regulations promulgated under those Acts. Public Notice of such modification and opportunity for public hearing shall be provided.

Reporting

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each lettered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed. All reports shall be submitted to IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

Memo

To: Board of Trustees

From: Amy R. Underwood, General Manager

Date: January 14, 2022

Subject: Amendment to the Agreement with the DuPage River/Salt Creek Workgroup

At the May 19, 2015 meeting, the Downers Grove Sanitary District Board of Trustees approved entering into an agreement with the DuPage River/Salt Creek Workgroup (DRSCW). Under the Agreement, the District will continue to be an active member of the DRSCW and will pay annual dues and project assessments through FY2022-23, and the DRSCW will manage the projects. In conjunction with the Agreement, participation in the DRSCW and completion of a specific list of projects and activities was included in a Special Condition in the District's NPDES permit that became effective on August 1, 2015. The projects and activities will improve dissolved oxygen (DO), improve aquatic habitat, reduce inputs of nutrient and sediments, modify and/or remove dams and include stream restoration with the long term goals of improving fish passage and aquatic life in Salt Creek, the East Branch of the DuPage River and the West Branch of the DuPage River. In return, the 1 mg/L monthly average phosphorus limit in the District's NPDES permit currently does not go into effect until August 1, 2025 (i.e., ten years from the date of the permit).

The above mentioned NDPES permit expired on July 31, 2020. In lieu of accepting the current compliance date for the proposed phosphorus limit, District staff wished to add additional projects to the DRSCW Special Condition in our new NDPES permit. To this end, the District has worked with the DRSCW and its permit holding members to propose revised Special Condition language. The DRSCW has negotiated this language with the environmental group stakeholders and the Illinois Environmental Protection Agency. Special Condition 17 in the Public Notice draft of the District's permit adds new projects to each waterway and moves the compliance date for the 1 mg/L monthly average phosphorus limit to August 1, 2028 if chemical treatment is used and August 1, 2029 if biological treatment is used. In order to fund the additional projects, each participating permit holder will pay project assessments for an

additional three years. The additional funding proposed to be provided by the District is as follows:

Payment Due Dates	Annual Dues	Project Assessments	Total Payment
June 1, 2023	$24,958	$178,527	$203,485
June 1, 2024	$25,707	$178,527	$204,234
June 1, 2025	$26,478	$178,527	$205,005

The annual dues are increased by 3% annually, consistent with the original Agreement. The project assessments were negotiated at a fixed annual amount which is slightly less than the 2019 payment.

The District's five year budget currently includes $1,210,000 for construction of a chemical feed system for phosphorus reduction and an annual cost of $522,032 for phosphorus reducing chemicals in FY24-25. Extension of the DRSCW Special Condition in our NDPES permit delays this capital expense for another three years and saves the District approximately $1 million in operating expenses over the three year period.

Execution of the attached Amendment to the Agreement with the DRSCW is needed in order to extend the DRSCW Special Condition projects as described herein.

At the January 18 Board Meeting, I will be seeking approval of the attached Amendment to the Agreement between DGSD and the DRSCW for an extension to the DRSCW local funding program to complete alternate stream restoration projects and for the President and Clerk to sign the same.

C: BOLI, MGP

AN AMENDMENT TO AN AGREEMENT BETWEEN DOWNERS GROVE SANITARY DISTRICT AND THE DUPAGE RIVER/SALT CREEK WORKGROUP

THIS AMENDMENT is entered into by and between DOWNERS GROVE SANITARY DISTRICT, an Illinois municipality, and the DUPAGE RIVER/SALT CREEK WORKGROUP (DRSCW), an Illinois not-for-profit corporation, concerning the participation of DOWNERS GROVE SANITARY DISTRICT in a DRSCW local funding program to complete alternate stream restoration projects, described herein.

WHEREAS, DRSCW was organized in 2005 to monitor, maintain and improve stream quality in the watersheds of Salt Creek and the East and West Branches of the DuPage River; and

WHEREAS, DOWNERS GROVE SANITARY DISTRICT has supported and participated in DRSCW as an Agency member since DRSCW was organized, and

WHEREAS, DRSCW negotiated a special condition for inclusion in the NPDES permits of Publicly Owned Treatment Works (POTWs) discharging into the above referenced watersheds, hereinafter referred to as “DRSCW Special Condition”; and

WHEREAS, the DRSCW Special Condition and the DuPage River Salt Creek Workgroup (DRSCW) Implementation Plan, dated April 16, 2015, herein after referred to as “DRSCW Implementation Plan”, allowed DOWNERS GROVE SANITARY DISTRICT to participate in the DRSCW local funding program to complete alternate stream restoration projects, and

WHEREAS, DOWNERS GROVE SANITARY DISTRICT accepted the DRSCW Special Condition in NPDES Permit Number IL0028380 for POTW facilities owned by DOWNERS GROVE SANITARY DISTRICT and entered into an AGREEMENT with DRSCW

on July 29, 2015, attached as Exhibit 1, to participate in the DRSCW local funding program and to formalize the obligations of DOWNERS GROVE SANITARY DISTRICT and DRSCW under said programs; and

WHEREAS, DRSCW has negotiated an extension of the DRSCW Special Condition for another five (5) year period, based on a revision to the DRSCW local funding program, attached as Exhibit 2 and herein after referred to as "DRSCW Special Condition Extension 1", and

WHEREAS, DOWNERS GROVE SANITARY DISTRICT desires to accept DRSCW Special Condition Extension 1 and to participate in the revised DRSCW local funding program, as detailed herein, and

WHEREAS, DOWNERS GROVE SANITARY DISTRICT and DRSCW both desire to amend their Agreement, dated July 29, 2015, to formalize the obligations of DOWNERS GROVE SANITARY DISTRICT and DRSCW under said revised program;

NOW, THEREFORE, in consideration of the above stated preambles and the mutual covenants and promises hereinafter contained, DOWNERS GROVE SANITARY DISTRICT and DRSCW formally covenant, agree, and bind themselves as follows to wit:

AGREEMENT TERM

1. The term of this Amendment shall commence upon execution by both parties, as detailed herein, and upon the receipt by DRSCW of executed agreements from other DRSCW Agency members owning and/or operating a POTW that also received an NPDES permit for said facilities containing the DRSCW Special Condition Extension 1 that, in the judgement of the DRSCW Executive Board, contain sufficient financial commitments, in the aggregate, to complete the alternate stream restoration projects contained in the DRSCW Special Condition Extension 1. The term of this

Amendment shall end on December 31, 2027. In the event that NPDES Permit Number IL0028380 shall be modified or renewed during the term of this Agreement and DOWNERS GROVE SANITARY DISTRICT is no longer obligated in said modified or renewed permit to participate in the revised DRSCW local funding program, this Amendment may be terminated by DOWNERS GROVE SANITARY DISTRICT upon not less than thirty (30) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate to DRSCW.

DOWNERS GROVE SANITARY DISTRICT RESPONSIBILITIES

2. DOWNERS GROVE SANITARY DISTRICT agrees to remain an Agency member of DRSCW and to pay dues and project assessments to DRSCW as detailed below:

Payment Due Dates	Annual Dues	Project Assessments	Total Payment
Remaining Obligations			
June 1, 2022	$24,232	$198,363	$222,595
New Obligations			
June 1, 2023	$24,958	$178,527	$203,485
June 1, 2024	$25,707	$178,527	$204,234
June 1, 2025	$26,478	$178,527	$205,005

GENERAL PROVISIONS

3. Other than the agreement term and the DOWNERS GROVE SANITARY DISTRICT payment obligations detailed above, all other provisions of the original Agreement between DOWNERS GROVE SANITARY DISTRICT and DRSCW, dated July 29, 2015, shall remain in full force and effect.

Dated at Downers Grove, Illinois, this 18th day of January, 2022.

DOWNERS GROVE SANITARY DISTRICT

By: _____
President

Attest: _____
Clerk

Dated at Naperville, Illinois, this _____ day of _____, 2022
.

DUPAGE RIVER/SALT CREEK WORKGROUP

By: _____
President

Attest: _____
Secretary/Treasurer

EXHIBIT 1

AN AGREEMENT BETWEEN DOWNERS GROVE SANITARY DISTRICT AND THE DUPAGE RIVER/SALT CREEK WORKGROUP

THIS AGREEMENT is entered into by and between DOWNERS GROVE SANITARY DISTRICT (DGSD), an Illinois sanitary district, and the DUPAGE RIVER/SALT CREEK WORKGROUP (DRSCW), an Illinois not-for-profit corporation, concerning the participation of DGSD in a DRSCW local funding program to complete alternate stream restoration projects, described herein.

WHEREAS, DRSCW was organized in 2005 to monitor, maintain and improve stream quality in the watersheds of Salt Creek and the East and West Branches of the DuPage River; and

WHEREAS, DGSD has supported and participated in DRSCW as an Agency member since DRSCW was organized, and

WHEREAS, DRSCW has negotiated a special condition for inclusion in the NPDES permits of Publicly Owned Treatment Works (POTWs) discharging into the above referenced watersheds, including NPDES Permit Number IL0028380 for the POTW facility owned by DGSD, hereinafter referred to as "DRSCW Special Condition"; and

WHEREAS, the DRSCW Special Condition, attached as Exhibit A, and the referenced DuPage River/Salt Creek Workgroup (DRSCW) Implementation Plan, dated April 16, 2015, attached as Exhibit B, herein after referred to as "DRSCW Implementation Plan", allows DGSD to participate in the DRSCW local funding program to complete alternate stream restoration projects, and

WHEREAS, DGSD desires to accept the DRSCW Special Condition and participate in the DRSCW local funding program, as detailed in said documents; and

WHEREAS, DGSD and DRSCW both desire to formalize the obligations of DGSD and DRSCW under said program;

NOW, THEREFORE, in consideration of the above stated preambles and the mutual covenants and promises hereinafter contained, DGSD and DRSCW formally covenant, agree, and bind themselves as follows to wit:

AGREEMENT TERM

1. The term of this Agreement shall commence upon execution by both parties, as detailed herein, and upon the receipt by DRSCW of executed agreements from other DRSCW Agency members owning and/or operating a POTW that also received an NPDES permit for said facilities containing the DRSCW Special Condition that, in the aggregate, contain sufficient financial commitments to complete the alternate stream restoration projects contained in the DRSCW Special Condition. The term of this Agreement shall end on December 31, 2022. In the event that NPDES Permit Number IL0028380 shall be modified or renewed during the term of this Agreement and DGSD is no longer obligated in said modified or renewed permit to participate in the DRSCW local funding program, this Agreement may be terminated by DGSD upon not less than thirty (30) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate to DRSCW.

DGSD RESPONSIBILITIES

2. DGSD agrees to remain an Agency member of DRSCW and to pay dues and project assessments to DRSCW as detailed below:

Payment Due Dates	Annual Dues	Project Assessments	Total Payment
60 days after term commences	$19,702	$63,094	$82,796

June 1, 2016	$20,294	$64,986	$85,280
June 1, 2017	$20,903	$106,315	$127,218
June 1, 2018	$21,530	$109,504	$131,034
June 1, 2019	$22,175	$181,530	$203,705
June 1, 2020	$22,841	$186,976	$209,817
June 1, 2021	$23,526	$192,585	$216,111
June 1, 2022	$24,232	$198,363	$222,595

3. DGSD shall cooperate with DRSCW in the completion of those tasks designated to be completed by either DGSD or DRSCW in the DRSCW Special Condition.
4. DGSD shall indemnify and hold DRSCW harmless from and against any and all liabilities, demands, claims, suits, losses, damages, causes of action, fines or judgments, including costs and attorney's fees, and related expenses that result from the intentional acts or omissions of DGSD.

DRSCW RESPONSIBILITIES

5. DRSCW will receive and administer the project assessment funds as detailed herein.
6. DRSCW will enter into contracts with the appropriate entities to complete the studies, plans, models and reports and the design and permitting of projects contained in the DRSCW Special Condition and shall pay for those contracts from project assessment funds.
7. Upon the accumulation of sufficient project assessment funds, DRSCW will enter into contracts with project sponsors, i.e. the appropriate entity, property owner and/or facility owner, for the design, permitting and/or construction of the projects listed in the DRSCW Special Condition and shall pay for those contracts from project assessment funds.
8. If the balance of available project assessment funds exceeds the total cost of the projects and obligations listed in the DRSCW Special Condition, DRSCW will

identify, prioritize and build consensus for additional stream restoration projects beyond those contained in the DRSCW Special Condition, in accordance with the process described in the DRSCW Implementation Plan.

9. DRSCW will continue to perform its basin assessment as detailed in the DRSCW Implementation Plan. At minimum, each basin will be assessed every 4 years.
10. DRSCW shall cooperate with DGSD in the completion of those tasks designated to be completed by either DGSD or DRSCW in the DRSCW Special Condition.
11. If any project assessment funds remain after the completion of the projects and obligations contained in the DRSCW Special Condition and any additional projects obligated under Paragraph 8 above, DRSCW will return said excess funds to DGSD in proportion to the total project assessment funds paid by all DRSCW Agency members.
12. DRSCW shall indemnify and hold DGSD harmless from and against any and all liabilities, demands, claims, suits, losses, damages, causes of action, fines or judgments, including costs and attorney's fees, and related expenses that arise out of the actions of DRSCW, and DRSCW assumes all the risk in the operation of its business hereunder and shall be solely responsible and answerable for any and all payments, accidents or injuries to persons or property arising out of the performance by DRSCW under this Agreement.

GENERAL PROVISIONS

13. This agreement may be terminated in whole or in part, in writing by either party in the event of substantial failure ("termination by default") by the other party to fulfill its obligations under this Agreement through no fault of the terminating party,

provided that no such termination may be effected unless the other party is given (1) not less than twenty-one (21) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the terminating party prior to termination. In addition, DGSD and DRSCW reserve the right to terminate this agreement if its respective board of directors determines funding is not available to continue this agreement or that the mission of either organization is not furthered by continuing this affiliation.

14. This document shall be the final and complete embodiment of the Agreement by and between DGSD and DRSCW. No oral changes, modifications, or additions to this Agreement shall be permitted or allowed. Changes, modifications, or additions to this Agreement shall be made only in writing and contain the necessary and proper signatures of DGSD and DRSCW.

15. Any dispute arising under or in connection with the Agreement or related to any matter which is the subject of the Agreement shall be subject to the exclusive jurisdiction of the state and/or federal courts located in DuPage County, State of Illinois.

16. In the event that any provisions of this Agreement shall be held invalid or unenforceable by a court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provisions hereto.

17. This agreement shall be binding upon and inure to the benefits of the parties hereto, their successors and assigns.

Dated at Downers Grove, Illinois, this 19th day of May, 2015.

DOWNERS GROVE SANITARY DISTRICT

By: _____
President

Attest: _____
Clerk

Dated at Naperville, Illinois, this 29th day of JULY, 2015.

DUPAGE RIVER/SALT CREEK WORKGROUP

By: _____
President

Attest: _____
Secretary/Treasurer

Draft DuPage/Salt Creek Special Condition XX.

1. The Permittee shall participate in the DuPage River Salt Creek Workgroup (DRSCW). The Permittee shall work with other watershed members of the DRSCW to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the DRSCW watersheds.

2. The Permittee shall ensure that the following projects and activities set out in the DRSCW Implementation Plan (April 16, 2015), are completed (either by the permittee or through the DRSCW) by the schedule dates set forth below; and that the short term objectives are achieved for each by the time frames identified below:

Project Name	**Completion Date**	**Short Term Objectives**	**Long Term Objectives**
Oak Meadows Golf Course dam removal	December 31, 2016	Improve DO	Improve fish passage
Oak Meadows Golf Course stream restoration	December 31. 2017	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi
Fawell Dam Modification	December 31, 2018	Modify dam to allow fish passage	Raise fiBi upstream of structure
Spring Brook Restoration and dam removal	December 31, 2019	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi
Fullersburg Woods dam modification concept plan development	December 31, 2016	Identify conceptual plan for dam modification and stream restoration	Build consensus among plan stakeholders
Fullersburg Woods dam modification	December 31, 2021	Improve DO, improve aquatic habitat (QHEI)	Raise miBi and fiBi
Fullersburg Woods dam modification area stream restoration	December 31, 2022	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi
Southern West Branch Physical Enhancement	December 31, 2022	Improve aquatic habitat (QHEI)	Raise miBi and fiBi
Southern East Branch Stream Enhancement	December 31, 2023	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi

QUAL 2K East Branch and Salt Creek	December 31, 2023	Collect new baseline data and update model	Quantify improvements in watershed. Identify next round of projects for years beyond 2024.
NPS Phosphorus Feasibility Analysis	December 31, 2021	Assess NPS performance from reductions leaf litter and street sweeping	Reduce NPS contributions to lowest practical levels

3. The Permittee shall participate in implementation of a watershed Chloride Reduction Program, either directly or through the DRSCW. The program shall work to decrease DRSCW watershed public agency chloride application rates used for winter road safety, with the objective of decreasing watershed chloride loading. The Permittee shall submit an annual report on the annual implementation of the program identifying the practices deployed, chloride application rates, estimated reductions achieved, analyses of watershed chloride loads, precipitation, air temperature conditions and relative performance compared to a baseline condition. The report shall be provided to the Agency by March 31 of each year reflecting the Chloride Abatement Program performance for the preceding year (example: 2015-16 winter season report shall be submitted no later than March 31, 2017). The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.

4. The Permittee shall submit an annual progress report on the projects listed in the table of paragraph 2 above to the Agency by March 31 of each year. The report shall include project implementation progress. The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.

5. The Permittee shall develop a written Phosphorus Discharge Optimization Plan. In developing the plan, the Permittee shall evaluate a range of measures for reducing phosphorus discharges from the treatment plant, including possible source reduction measures, operational improvements, and minor low cost facility modifications that will optimize reductions in phosphorus discharges from the wastewater treatment facility. The permittee's evaluation shall include, but not necessarily be limited to, an evaluation of the following optimization measures:
    a. WWTF influent reduction measures.
        i. Evaluate the phosphorus reduction potential of users.
        ii. Determine which sources have the greatest opportunity for reducing phosphorus (e.g., industrial, commercial, institutional, municipal, and others).
            1. Determine whether known sources (e.g., restaurant and food preparation) can adopt phosphorus minimization and water conservation plans.
            2. Evaluate implementation of local limits on influent sources of excessive phosphorus.

b. WWTF effluent reduction measures.
    i. Reduce phosphorus discharges by optimizing existing treatment processes without causing non-compliance with permit effluent limitations or adversely impacting stream health.

        1. Adjust the solids retention time for biological phosphorus removal.
        2. Adjust aeration rates to reduce DO and promote biological phosphorus removal.
        3. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
        4. Minimize impact on recycle streams by improving aeration within holding tanks.
        5. Adjust flow through existing basins to enhance biological nutrient removal.
        6. Increase volatile fatty acids for biological phosphorus removal.

6. Within 24 months of the effective date of this permit, the Permittee shall finalize the written Phosphorus Discharge Optimization Evaluation Plan and submit it to IEPA. The plan shall include a schedule for implementing all of the evaluated optimization measures that can practically be implemented and include a report that explains the basis for rejecting any measure that was deemed impractical. The schedule for implementing all practical measures shall be no longer than 36 months after the effective date of this permit. The Permittee shall implement the measures set forth in the Phosphorus Discharge Optimization Plan in accordance with the schedule set forth in that Plan. The Permittee shall modify the Plan to address any comments that it receives from IEPA and shall implement the modified plan in accordance with the schedule therein.

   Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year beginning 24 months from the effective date of the permit.

7. The Permittee shall, within 24 months of the effective date of this permit, complete a feasibility study that evaluates the timeframe, and construction and O & M costs of reducing phosphorus levels in its discharge to a level consistently meeting a limit of 1 mg/L, 0.5 mg/L and 0.1 mg/L utilizing a range of treatment technologies including, but not necessarily limited to, biological phosphorus removal, chemical precipitation, or a combination of the two. The study shall evaluate the construction and O & M costs of the different treatment technologies for these limits on a monthly, seasonal, and annual average basis. For each technology and each phosphorus discharge level evaluated, the study shall also evaluate the amount by which the Permittee's typical household annual sewer rates would increase if the Permittee constructed and operated the specific type of technology to achieve the specific phosphorus discharge level. Within 24 months of the effective date of this Permit, the Permittee shall submit to the Agency and the DRSCW a written report summarizing the results of the study.

8. Total phosphorus in the effluent shall be limited as follows:

    a. If the Permittee will use chemical precipitation to achieve the limit, the effluent limitation shall be 1.0 mg/L on a monthly average basis, effective 10 years after the effective date of this permit unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program pursuant to paragraph c or d below that is fully implemented within 10 years of the effective date of this permit.
    b. If the Permittee will primarily use biological phosphorus removal to achieve the limit, the effluent limitation shall be 1.0 mg/L monthly average to be effective 11 years after the effective date of this permit unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program pursuant to paragraph c or d below that is fully implemented within 11 years of the effective date of this permit.
    c. The Agency may modify this permit if the DRSCW has developed and implemented a trading program for POTWs in the DRSCW watersheds, providing for reallocation of allowed phosphorus loadings between two or more POTWs in the DRSCW watersheds, that delivers the same results of overall watershed phosphorus point-source reduction and loading anticipated from the uniform application of the applicable 1.0 mg/L monthly average effluent limitation among the POTW permits in the DRSCW watersheds and removes DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.
    d. The Agency may modify this permit if the DRSCW has demonstrated and implemented an alternate means of reducing watershed phosphorus loading to a comparable result within the timeframe of the schedule of this condition and removes DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.

9. The Permittee shall monitor the wastewater effluent, consistent with the monitoring requirements on Page 2 of this permit, for total phosphorus, dissolved phosphorus, nitrate/nitrite, total Kjeldahl nitrogen (TKN), ammonia, total nitrogen (calculated), alkalinity and temperature at least once a month. The Permittee shall monitor the wastewater influent for total phosphorus and total nitrogen at least once a month. The results shall be submitted on NetDMRs to the Agency unless otherwise specified by the Agency.

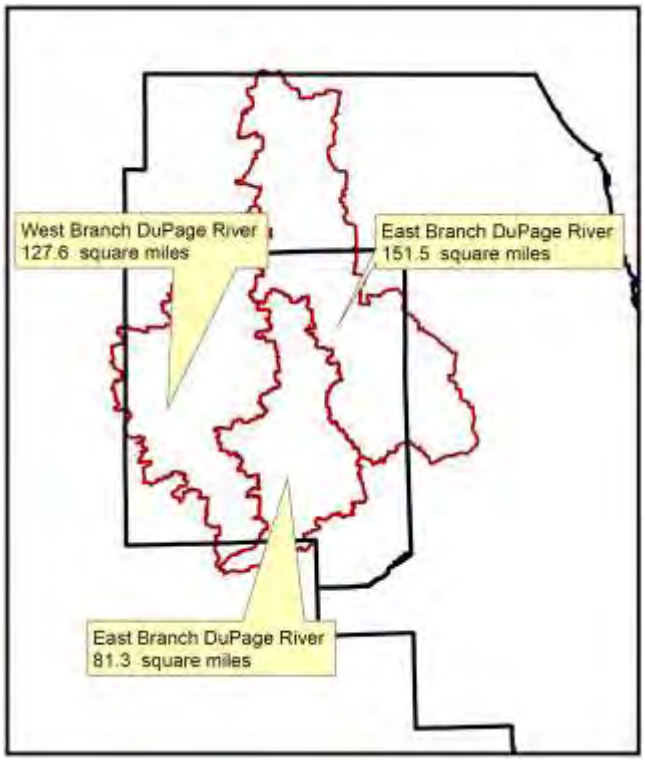
10. The Permittee shall submit a Nutrient Implementation Plan (NIP) for the DRSCW watersheds that identifies phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203. The NIP shall also include a schedule for implementation of the phosphorus input reductions and other measures. The Permittee may work cooperatively with the DRSCW to prepare a single NIP that is common among DRSCW permittees. The NIP shall be submitted to the Agency by December 31, 2023.

DuPage River Salt Creek Workgroup (DRSCW) Implementation Plan

April 16 2015

General Information

The DuPage River Salt Creek Workgroup (DRSCW) is a coalition of publicly owned treatment works (POTWs), MS4 communities, citizen advocacy groups and professional firms focused on meeting Clean Water Act (CWA) goals in the East Branch DuPage River, the West Branch DuPage River, and Salt Creek watersheds (see location map below), particularly the designated use for aquatic life. The DRSCW was formed to carry out adaptive management as recommended in the approved Total Maximum Daily Load (TMDL) studies for these watersheds.



The DRSCW is funded by membership dues principally from local government agencies, based on POTW design average flow and their drainage area within the watersheds. Illinois EPA's Section 319 program has also been a significant source of funding.

The DRSCW's adaptive management approach focuses on high resolution, comprehensive monitoring of chemical, biological, and physical characteristics of the watersheds. This monitoring provides the data needed to execute the 'Plan-Do-Check-Act' methodology inherent to adaptive management. Monitoring and analysis provides insight into the highest priority stressors affecting stream health in order to identify projects or initiatives with the greatest potential to attain stream use goals. Monitoring also provides the feedback needed to properly assess the impacts of cutting-edge stream restoration projects and water quality initiatives to better formulate future activities.

Holistic monitoring and analysis of stream characteristics in the DRSCW program area show that point source loading offers an insufficient explanation for the inability of local streams to support aquatic life in 2013. Based on the empirical evidence, physical anthropomorphic modifications to stream corridors and nonpoint source pollution provide much more compelling explanations. Early projects completed by the Workgroup have focused on dam modification (where marked improvements in stream biological health have already been documented) and chloride reduction. Actions need to be carried out on a scale many times

larger than the Workgroup's current effort, need to be systematically applied over an extended period of time, and need to be guided by a system where actions are prioritized both by nature (physical restoration, pollutant abatement) and space (stream reaches) in order to ensure measurable progress.

The DRSCW has developed and maintains a project prioritization system (Identification and Prioritization System or IPS) that uses monitoring data it has collected to identify priority stressors at a small spatial scale and prioritizes the assessed stream reaches for restoration activities. This prioritization system is used to identify potential projects for further development, including preliminary scopes and costs. Post project monitoring is used to evaluate impacts, identify the next set of activities and improve the design of future projects based on improved understanding of the relationships between stressors and biological communities.

The DRSCW's data and analysis currently shows that major investments in channel form, in-stream and riparian habitat and nonpoint source pollutant abatement at a watershed scale are essential to make efficient and measurable progress towards attaining the designated use for aquatic life.

The plan presented herein represents activities that the DRSCW will perform as part of an adaptive management program focused on the aquatic life use goals in the affected watersheds during two, 5-year NPDES permit cycles.

This plan includes a list of preliminary projects that will deliver significant and verifiable improvements to local aquatic communities, because they directly address the most significant aquatic life stressors in these particular watersheds. To fund these watershed plan projects, this plan establishes a funding structure that would generate approximately $7.5M over the initial five-year NPDES permit cycle, and approximately $15.5 M over the eight-year period of the assessment.

The plan is designed to be amended for future planning periods coinciding with future NPDES permit cycles. Project completion and further monitoring and assessment will continually adjust priorities and identify additional projects and activities needed to achieve stream use goals. This implementation plan will be amended to reflect the priority projects and activities that are relevant at the time of subsequent renewal cycles of NPDES permits in the watershed. An amended plan will be available for reference when subsequent NPDES permit renewals are needed.

The DRSCW understands that the responsibility to develop this adaptive management implementation plan and associated watershed based priorities rests with the municipalities that choose to pursue implementation of the plan. The Workgroup structure is contingent upon DRSCW members making funds available for, and then executing and evaluating, the watershed plan projects. All parties understand and agree that the responsibilities and benefits of the implementation plan accrue to all the participating agencies in the program area.

This plan allows public and private managers to allocate their limited financial and human resources to address the most critical problems impinging aquatic life in a prioritized, systematic manner inside a framework of clear environmental outcomes and objectives. These objectives and outcomes are the status and integrity of aquatic assemblages, a primary goal of the Clean Water Act. As such, the objectives of the plan are the same as those of the Clean Water Act. The IPS tool is aimed at moving towards the goal of the Clean Water Act to attain full support of aquatic communities.

Projects and Activities

The DRSCW has created a prioritized list of preliminary projects and activities which it calculates will improve aquatic assemblages in a measurable and systemic manner (Table 1, depicted geographically in Map 1). The projects were selected by scoring high in the DRSCW's Identification and Prioritization System (IPS) tool, (Appendix 1), or via identification in the DRSCW's TMDL implementation analyses (Appendices 2 & 3). In some instances, these deliver common priorities (Fullersburg Dam modification, chloride reduction BMPs, etc.). The IPS is based on extensive monitoring data: assemblages; physical habitat; water and sediment chemistry; land cover analysis; and stream features (dams, outfalls and culverts), and scores projects 1-6 in descending order of priority.

Table 1 lists and describes projects the DRSCW and partner agencies are committed to pursuing during the initial 5 year planning period. A more complete list of projects that will be pursued by member agencies that meet the DRSCWs priorities can be found in the "White Paper-Adaptive Management to meet the Aquatic Life goal." Table 1 includes projected short and long term outcomes. Projects shaded in red will be funded out of the proposed project funding mechanism contained in this plan. Project funding will cover engineering, permitting and construction and post project monitoring (of construction and vegetation integrity). After these projects have been completed, priorities will be a reassessed and a second list of priority projects will be generated. The second list of projects cannot be generated at this time as they, by the very nature of adaptive management, rely on assessment of the first set of actions. The development of the second set of activities and the other actions shaded in blue, will be funded by membership dues and includes post project impact monitoring (IBI and QHEI) surveys. If an action on either the first of second project lists proves impossible due to engineering or permitting issues, DRSCW will select a replacement action from its IPS methodology.

TABLE 1. Priority Projects For Cycle 1

Project Name (Map 1 code)	Drainage basin/ waterbody	Location (RM or Other)	Approximate Activities and Project Description	DO Imp. Project (A2)	IPS Ranking (A1)	TMDL Imp.	Short Term Objectives (1-2 years)	Long Term Objectives (4-6 years)	Schedule	Estimated Cost
Oak Meadows Golf Course dam removal (A)	Salt Creek	23.5	Remove Oak Meadows dam	Yes	3	Yes	Improve average daily DO; decrease Diel	Improve average daily DO; decrease Diel, improve fish passage	Complete 2016	$250,000
Oak Meadows Golf Course dam removal and stream restoration (B)	Salt Creek	23.5-25	Naturalize 1.5 miles of stream corridor. Construct meanders and cobble substrate. Plant vegetated buffers on riparian land.	Yes	3	No	Raise QHEI from 46.5 to >70.0; reduce nutrients by 760 lbs. P/year, 1521 lbs. N/year, 760 tons sediment/ year	Raise mIBI from 21 to > 35 to 1-1.5 miles of river; raise fIBI from 19 to 25 for 1-1.5 miles of river	Complete 2017	$2,000,000
Fullersburg Woods dam modification (C)	Salt Creek	10.5	Modify dam to improve DO in the upstream impoundment and fish passage.	Yes	1-2	Yes	Improve average daily DO; raise QHEI from 39.5 to >70.0	Raise fIBI from 19 to 27; raise mIBI from 35 to > 42 for 1.5 miles of river	Complete 2021	$1,500,000
Fullersburg Woods dam impoundment area stream restoration (D)	Salt Creek	10.5-12.0	Naturalize upstream 1.5 miles of stream corridor to include meanders and pool and riffle sequences.	Yes	1-2	Yes	Improve average daily DO; raise QHEI from 39.5 to >70.0; reduce pollutants by 760 lbs. P/year, 1521 lbs. N/year, 760 tons sediment/year	Raise fIBI from 19 to 27; raise mIBI from 35 to > 42 for 1.5 miles of river beyond restored area	Complete 2022	$1,500,000

Project Name (Map 1 code)	Drainage basin/ waterbody	Location (RM or Other)	Approximate Activities and Project Description	DO Imp. Project (A2)	IPS Ranking (A1)	TMDL Imp.	Short Term Objectives (1-2 years)	Long Term Objectives (4-6 years)	Schedule	Estimated Cost
Southern West [1]Branch Physical Enhancement Project (G)	West Branch	Between RM 0 and RM 8 (TBD)	Naturalize 1 mile of stream corridor; pool and riffle sequences and bank reconstruction	No	1	No	Raise QHEI from 70-75 to >77; reduce nutrients by 507 lbs. P/year, 1014 lbs. N/year, 507 tons sediment/year	Raise fIBI from 31-33 to > 42	Complete 2022	$500,000.00
Fawell Dam Modification (E)	West Branch	8	Modify structure to allow fish passage to the 24 miles of main stem river upstream.	No	1 -1	No	Create fish passage for target species	Raise fIBI from 17.5 to 27 for 2 miles upstream of project; passage beyond 2 mile area	Complete 2018	$687,500
Southern East Branch Stream Enhancement Project (F)	East Branch	6.5-8.5	Naturalize 2 miles of stream corridor; construct pool and riffle sequences, cobble substrate and meanders.	No	1-3	No	Raise QHEI from 59-70 to >77. reduce nutrients by 1014 lbs. P/year, 2028 lbs. N/year, 1014 tons sediment/year	Raise fIBI from 27-35 to > 42; raise mIBI from 27-35 to > 42	Complete 2023	$2,500,000.00
Spring Brook Restoration (I)	West Branch and Spring Brook	0-2	Naturalize 1 mile of stream corridor; pool and riffle sequences and bank reconstruction	No	3	No	Raise QHEI from 64 to 77; reduce pollutants by 506.66 lbs. P/year, 1014 lbs. N/year, 5066.66 tons sediment/year	Raise fIBI from 21.5 to 22 (post Fawell >27); raise mIBI from 30.1 to >42	Complete 2019	$1,000,000
Physical Project Total										$9,937,500.00

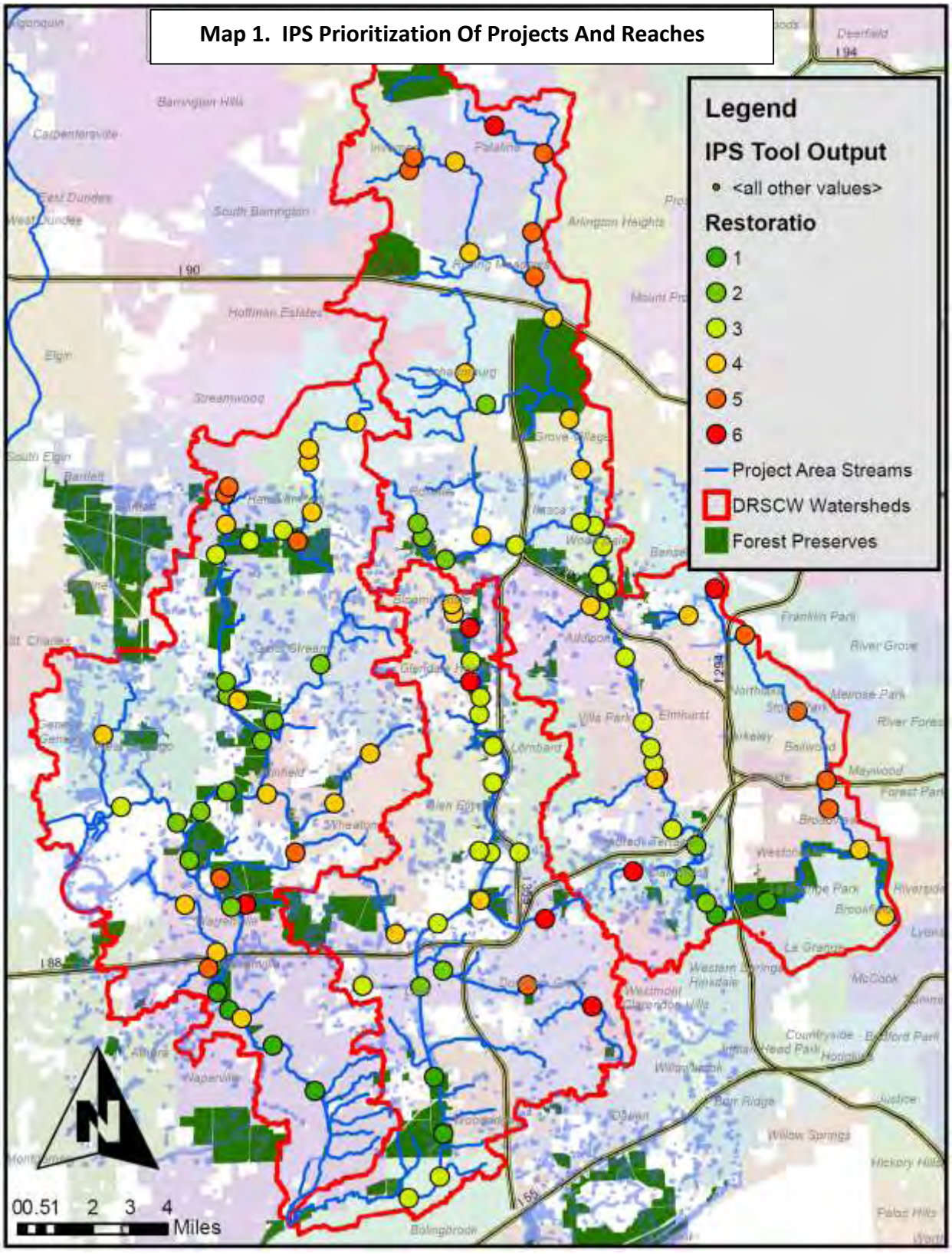
[1] Projects coded red are physical improvement projects, projects coded blue are will be funded by membership dues of individual members

Project Name (Map 1 code)	Drainage basin/ waterbody	Location (RM or Other)	Approximate Activities and Project Description	DO Imp. Project (A2)	IPS Ranking (A1)	TMDL Imp.	Short Term Objectives (1-2 years)	Long Term Objectives (4-6 years)	Schedule	Estimated Cost
Chloride Abatement (A3)	All	Program Area Wide	Education program for pre-wetting, anti-icing and equipment calibration	No	Proximate Stressor	Yes	Decrease chloride application rates; increase survey participation by 10 (currently 33); surveyed communities average application rate < 500 lbs./lane mile (currently 3 are higher), 18 surveyed communities anti-ice (currently 12); 33 surveyed communities pre wet (currently 33), zero surveyed communities store exposed salt	Decrease average summer chloride concentrations	Ongoing	$175,000.00
Basin and project assessments	All	Program Area Wide	Rolling assessment of physical, chemical and biological characteristics.	NA	NA	No	Complete assessment for each basin	Assess project goals attainment; enhance understanding of stressor-response relationships; use information to develop next round of projects	Ongoing	$929,110.00
Municipal level IPS Implementation Plan	All	Program Area Wide	Design and disseminate an IPS report and summary tailored to individual communities.	No	NA	No		Integrate IPS outputs into local projects and decision making	Complete 2017	$30,000.00

Project Name (Map 1 code)	Drainage basin/ waterbody	Location (RM or Other)	Approximate Activities and Project Description	DO Imp. Project (A2)	IPS Ranking (A1)	TMDL Imp.	Short Term Objectives (1-2 years)	Long Term Objectives (4-6 years)	Schedule	Estimated Cost
PAH Abatement	All	Program Area Wide	Signed voluntary agreements to discontinue use of coal tar sealants by DRSCW members (MOU).	No	Proximate Stressor	No	75% of members discontinue use of CT sealants for public operations	Area wide ban on sale of CT sealants	MOU goal met by 2018	$20,000.00
Elgin O'Hare (EOWA) Chloride Offset Program	Salt Creek and West Branch	EOWA envelope	Create and manage offset program for chloride loading increase created by EOWA.	No	Proximate Stressor	Yes	Detailed tracking of Tier 1 agency use in place; ambient monitoring system in place; Tollway and municipal offsets identified	Zero increase in ambient chloride levels following winter operations in EOWA envelope	2019	$50,000.00
Develop 2nd set IPS projects	All	Program Area Wide	Identify projects for second round of investments (causal analysis and IPS allocation).	No	N/A	Yes	N/A	N/A	List of projects available 2019	$100,000.00
Continuous DO monitoring	All	Program Area Wide	Collect hourly warm-weather data for DO, pH, Conductivity and temperature.	Yes	N/A	Yes	Add to dataset	N/A	Yearly collection	$221,920.00
QUAL 2K East Branch and Salt Creek	East Branch and Salt Creek	Relevant Basins	Update QUAL 2K model for East Branch Salt Creek.	Yes	N/A	Yes	Identify next round of DO improvement projects	N/A	2023	$140,000

Project Name (Map 1 code)	Drainage basin/ waterbody	Location (RM or Other)	Approximate Activities and Project Description	DO Imp. Project (A2)	IPS Ranking (A1)	TMDL Imp.	Short Term Objectives (1-2 years)	Long Term Objectives (4-6 years)	Schedule	Estimated Cost
Point Source Trading Feasibility Study	All	Program Area Wide	Model of marginal costs of TP and TN for each plant is developed	No	N/A	Yes	Evaluate feasibility and environmental impacts of trading concept	Lower marginal costs of meeting P reduction targets	2023	$200,000
Nutrient Implementation Plan	All	Program Area Wide	Identify phosphorus input reductions by point source discharges, non-point source discharges and other measures, and	No	N/A	Yes	Develop a schedule for implementation of the phosphorus input reductions and other measures at PS and NPS.	Lower marginal costs of meeting P reduction targets	2023	$200,000
NPS Phosphorous Feasibility Analysis	All	Program Area Wide	Evaluate leaf litter and street sweeping programs.	No	N/A	No			Complete 2021	$120,000
Grand total for all DRSCW										$12,123,530.00

Map 1. IPS Prioritization Of Projects And Reaches



Financial and Reporting

DRSCW Agency members are public agencies holding an NPDES permit for a discharge from a publicly owned treatment works or from a municipal separate storm sewer system into the DRSCW watersheds. DRSCW Agency members currently fund the monitoring, assessment and administration activities of the Workgroup through annual dues. Agency members will contribute to project funding through a project assessment amount in addition to their inflation-adjusted membership dues.

Based on anticipated participation, the project assessment would total $7,495,002 over the first five-year permit cycle, and $8,243,829 over the subsequent five-year permit cycle (where it would run for three-years only). This amount would be combined with an approximate 40% match from local project sponsors calculated at approximately 40% of the assessment total, making it $10,492,557 over the two permit cycles. In total, the proposal (assessment and match) would create total priority project investment of approximately $12.5M in projects within the three DRSCW watersheds over the initial permit cycle, and a possible $26,231,388 total over the two permit cycles (10 years). The proposed funding level would start at $1.5M in the first year. This initial funding level allows DRSCW and its Agency members to work out the implementation of this new funding initiative and build local support for projects as the funding level increases through the fifth year of the program. The proposed special assessment funding, local matching funds and total project funding for each year are provided in Table 2. Table 2A contains the inflation adjusted membership dues for each year over the same time period.

TABLE 2. Member Special Assessment for First and Second Permit Cycle[2]

Year	DRSCW Agency Member Project Assessments	Local Matches from Project Sponsors	Total Amount of Annual Project Funding
FY 15-16	$900,000	$600,000	$1,500,000
FY 16-17	927,001	617,999	1,545,000
FY 17-18	1,516,529	1,011,021	2,527,550
FY 18-19	1,562,028	1,041,355	2,603,383
FY 19-20	2,589,444	1,726,296	4,315,740
Subtotal	**7,495,002**	**4,996,671**	**12,491,673**
FY 20-21	2,667,131	1,778,087	4,445,218
FY 21-22	2,747,142	1,831,428	4,578,570
FY 22-23	2,829,556	1,886,371	4,715,927
Subtotal	**8,243,829**	**5,495,886**	**13,739,715**
Totals	$15,738,831	$10,492,557	$26,231,388

Table 2A. Member Dues and Personnel Rates for First and Second Permit Cycle Permit Cycle

Dates	**2015-2016**	**2016-2017**	**2017-2018**	**2018-2019**	**2019-2020**	**Total**
Dues	$403,180	$415,276	$427,742	$440,572	$453,779	$2,140,549
Dates	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**Total**
Dues	$467,413	$481,425	$495,865	$510,737	$526,076	$2,481,516

Participating agencies will: continue to fund DRSCW monitoring, assessment, and administration activities at inflation-adjusted levels through the payment of annual DRSCW Agency member dues; fund project implementation at the level identified here through the payment of an annual DRSCW project assessment; implement agreed upon projects; and report project implementation progress and spending via an annual progress report submitted to Illinois EPA, the first of which will be submitted on March 31st of each year. The DRSCW memo entitled "Updates to Proposed NPDES Permit Special Condition Language and Recommended Agency Member Dues, Agency Member Assessments and Local Project Matches to Implement DRSCW Project Funding Plan," dated February 16th, 2015, provided in Appendix 6, contains a detailed discussion of the proposed funding program as well as the proposed dues and assessments from Agency members for each year of the proposed ten-year program.

It must be clearly understood that the estimated project funding total of $$26M contained in this Implementation Plan represents the preferred and targeted funding goal. It is based on 100% participation by all DRSCW Agency members which own a POTW discharging into DRSCW watersheds, for payment of the project assessments each year. A DRSCW Agency member which elects not to participate in the DRSCW watershed implementation plan would not contribute to the proposed project funding but rather would negotiate directly with Illinois EPA on appropriate limits in their NPDES permit. In addition, the estimated $26M project funding level is based on the contribution of local matches of 40% of the cost of each individual project from local project sponsors, above and beyond the project funding assessments paid by DRSCW Agency members. The proposed project assessments contained in this Implementation Plan are <u>not</u> subject to reassessment should participation by DRSCW Agency members which own a POTW be less than 100% or should local project matches not materialize at the 40% level. It is also anticipated that the estimated project funding level will vary from the annual estimates contained in this plan and that the appropriate funding target is total project funding over the ten year period and the DRSCW will commit to achieving that target.

The cost of this approach to local government entities is assessed at the level needed for successful implementation of the plan. Along with a high probability of moving towards the aquatic life thresholds, it creates an incentive for members to participate, allows local government to offset the risk of investing in an untried methodology by creating short term savings, encourages them to invest outside of their jurisdictions, and, if the program is successful, helps to validate its efficacy. The selection of projects to be funded will start with the projects prioritized by the IPS tool and then proceed to reflect other factors such as readiness to proceed, project sponsors willing to provide local match, etc. as deemed appropriate during the consensus building process of project selection through the DRSCW.

Appendix 1. Monitoring

Monitoring data and analysis is essential to provide a sound scientific basis to identify impaired waters, diagnose causes of impairment, and conduct adaptive management implementation. Between 2006 and 2012, DRSCW collected physical measures and biological and chemical samples from a total of 118 sampling locations including six reference sites (biological and physical). Continuous dissolved oxygen (DO) data was collected at an additional 14 sites. The information gathered during these surveys represents a baseline of existing conditions, documents environmental impacts to the reaches from point source discharges and nonpoint source pollution, and serves as a guide for management decisions. The sampling design employed by DRSCW is a combination of systematic and target-intensive site selection. Sample sites were selected by systematically moving upstream in a watershed at a fixed interval of one-half the drainage area of the preceding site. This resulted in seven levels of drainage area, starting from 150mi^2, through drainage sizes of 75, 38, 19, 9, 5 and finally 2 mi^2. Each level was then supplemented with targeted sites around points of particular interest such as POTW outfalls, sanitary sewer overflows (SSOs), major stormwater sources, and dams. Data collected at each site includes fish and macroinvertebrate assemblages (IBIs), habitat assessment (QHEI), water column chemistry (nutrients, metals, oxygen demand and organics), and sediment chemistry (metals and organics). Data is collected from late spring through early fall in one basin each year. Thus, there will normally be a three-year cycle for each basin. A map of the sample sites in each basin, including continuous DO sites, is provided in Map 2. The list of water column parameters is supplied in Table 3. Information on the DRSCW's continuous DO monitoring activities is given in Appendix 3.

The monitoring will continue annually under the agreement. Reports will be available by November the year following the survey.

Map 2. DRSCW Monitoring Sites

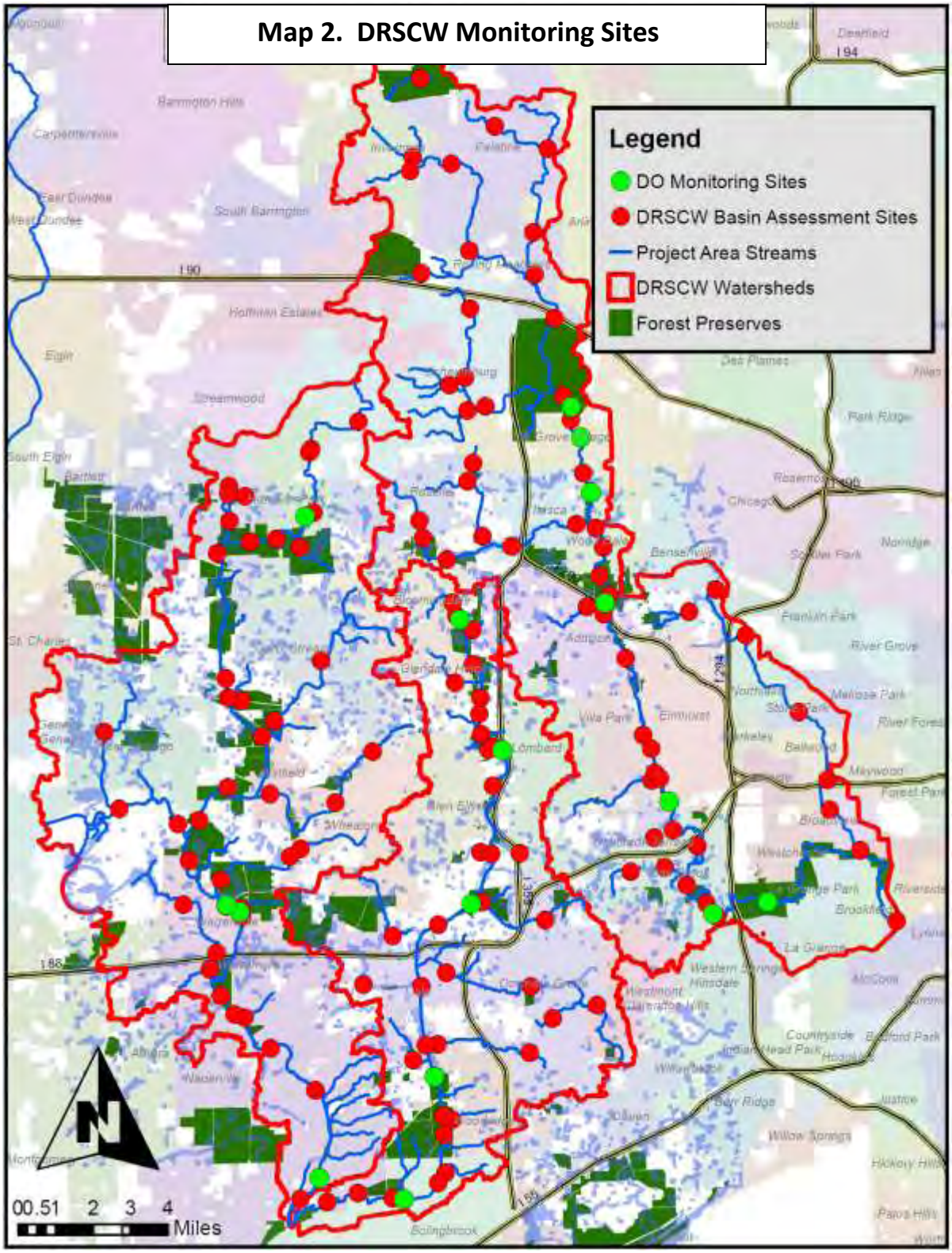


Table 3

Biological and Water Quality Assessment DuPage Rivers and Salt Creek Watersheds

Water and Sediment Chemistry Analysis Parameters

Demand Parameters
5 Day BOD
Chloride
Conductivity
Dissolved Oxygen (continuous and grab)
pH
Temperature
Total Dissolved Solids
Total Suspended Solids

Nutrients
Ammonia
Nitrogen/Nitrate
Nitrogen – Total Kjeldahl
Phosphorus, Total

Metals
Cadmium
Calcium
Copper
Iron
Lead
Magnesium
Zinc

Organics – Water
PCBS
Pesticides
Semivolatile Organics
Volatile Organics

Sediment Metals
Arsenic
Barium
Cadmium
Chromium
Copper
Iron
Lead
Manganese
Nickel
Potassium
Silver
Zinc

Sediment Organics
Organochlorine Pesticides
PCBS
Percent Moisture
Semivolatile Organics
Volatile Organic Compounds

Specific objectives of this activity are to:

- Complete a comprehensive assessment of biological assemblages (fish and macroinvertebrates), habitat and ambient conditions within the targeted watersheds.
- Establish a baseline to compare to future conditions in response to management activities.
- Determine the role of potential stressors at a local reach scale.

DRSCW has completed two assessments for each basin and a third for the West Branch DuPage River was carried out in 2012. Figure 1 shows West Branch DuPage River fIBI scores from 1983 (collected by the Forest Preserve District of DuPage County), 2006, and 2009.

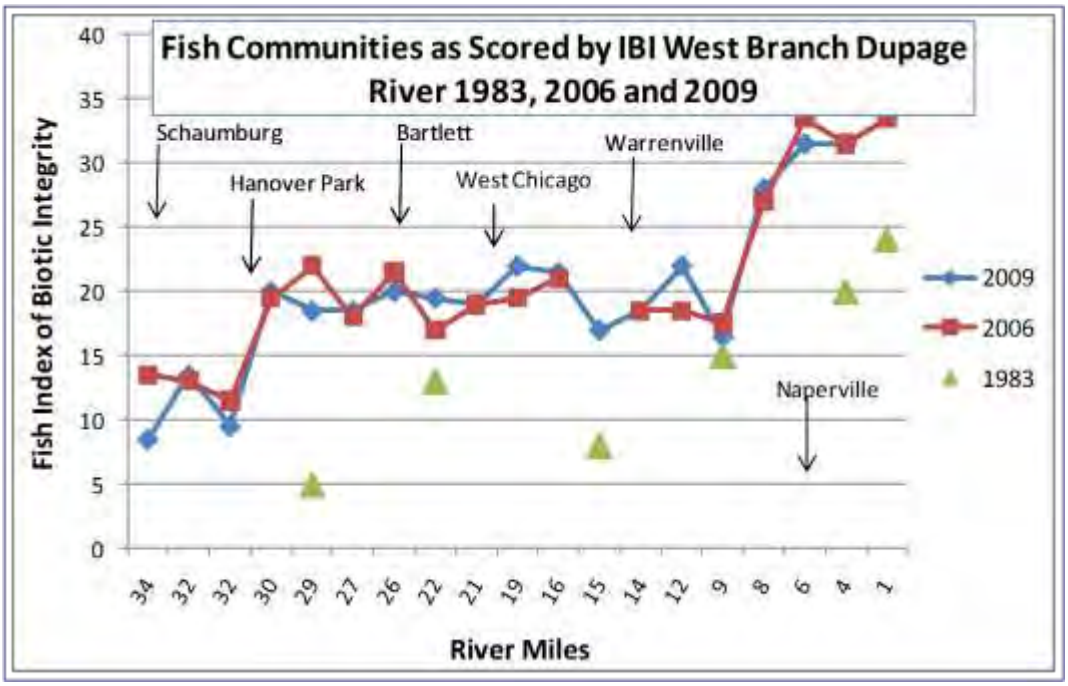


Figure 1 – fIBI scores for the West Branch DuPage River 1983, 2006, 2009. Arrows represent point source inputs from POTWs.

Appendix 2. Identification and Prioritization System (IPS)

Active adaptive management calls for a mechanism to integrate baseline data and trend information into management and implementation decisions on an on-going basis. With a solid understanding of the stressors responsible for impairment, based on the analysis of biological responses, DRSCW has developed and maintains a mechanism to select implementation projects that:

- Address the most limiting stressors at a reach level
- Prioritize reaches for intervention
- Establish restoration endpoints
- Provide a level of confidence in the likelihood of success
- Have measurable outcomes

DRSCW uses a number of statistical techniques to look at correlations between observed aquatic communities as measured by IBI and 41 possible stressors. Possible stressors include landscape scale stressors (such as road density and basin size), ambient chemistry (such as chloride and phosphorous concentrations) and physical (using sub components of the QHEI such as measures of buffer width and stream sinuosity). The methods used are based on the EPA's Causal Analysis/Diagnosis Decision Information System (CADDIS) methodology and include cluster analysis, non-metric Multidimensional Scaling and Classification and Regression Trees.

Table 4 lists the nine stressors identified by statistical analyses that best correlate with IBI values in current monitoring data. Quantile Regression is then used to examine the relationship between the individual stressor and the fIBI and mIBI scores. Figure 2 shows a quantile regression between mIBI scores and riparian scores from the QHEI. Such analysis supplies both thresholds for the stressor response in aquatic communities and information for project planners to design restoration projects. To the list can be added physical fragmentation (dams) and Polycyclic Aromatic Hydrocarbons (PAHs). Neither is used in the statistical methodology for methodological reasons but both have explanatory power in IBI variation, the former in longitudinal IBI plots (Figure 1) and the latter is ubiquitous in sediment samples.

Table 4. Proximate stressors identified in the stressor analysis

Riparian score
Riffle score
Channel score
Substrate score
Pool score
Chloride
TKN
BOD
NH3N

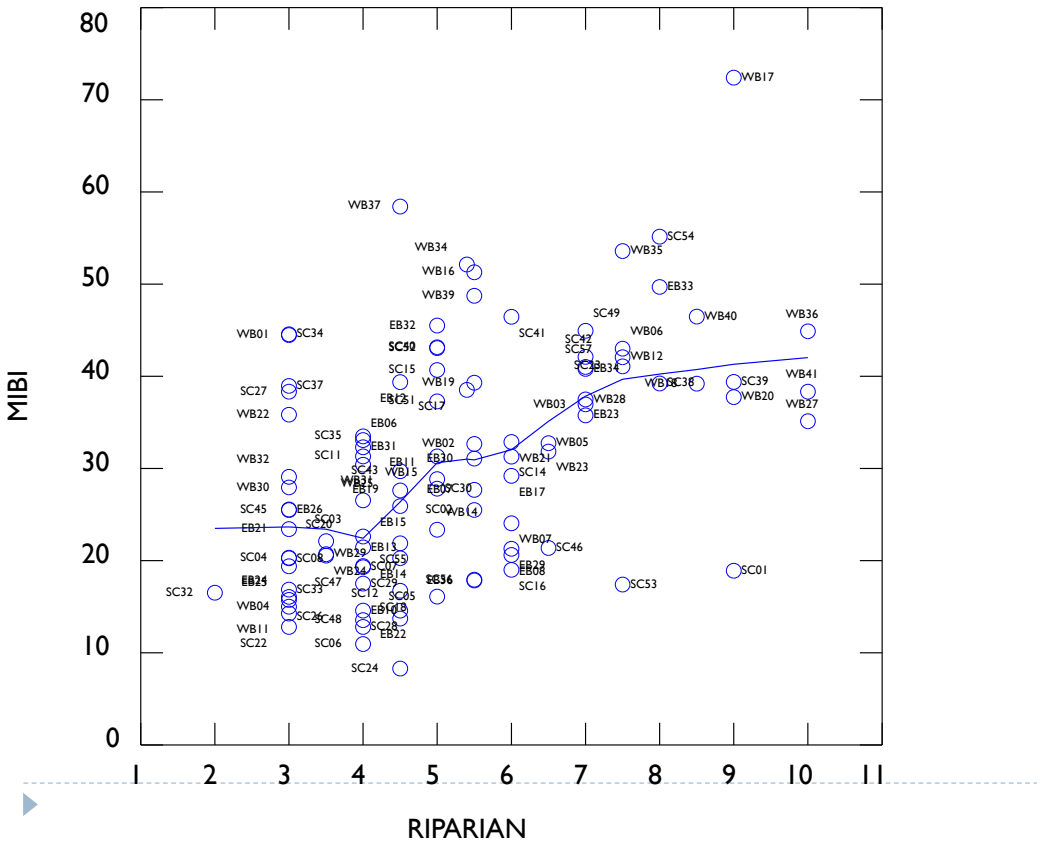


Figure 2 – Quantile regression between the QHEI buffer score and mIBI scores for the DRSCW program area. The blue line represents the best fit line.

Stream segments are then graded according to their estimated "restorability." To accomplish this, a composite score based on three factors is created:

- Site score improves if it has proximity to open space (based on GIS analysis of aerial images and land use coverage). Criteria are selected to ensure that sufficient physical space exists in the riparian corridor to allow physical enhancement projects.
- Site score decreases as the number of proximate stressors identified at the site increases (based on the analysis outlined above). Having a low number of proximate stressors is assumed to mean that restoring biological integrity to the site would be less complex than at a site with a large number of proximate stressors.
- Site score decreases as mean deviation from the biological threshold for the IBI rankings (thresholds set by Illinois EPA). This criterion is based on the assumption that segments close to compliance would be easier to steer to full compliance than sites with poor assemblages.

The grading exercise allows projects to be ranked on a nominal scale of 1-6 in descending order of restorability, and also generates a list of actions to undertake at the priority sites such as buffer creation, chloride abatement or re-meandering. The model is verified by evaluating priority sites with field visits from stream restoration and water quality specialists. Once a site is chosen, projects can be designed based on the data supplied by the tool (targeted on reducing

proximate stressors, designed by quantile regression) and by accessing the field data for the site (QHEI subset scores and species data). For example, at sites WB 41 and WB 36 (see RM 8-9 on Figure 1), the proximate stressors are habitat (lack of riffles and a silt mud substrate) and ammonia–nitrogen. Dam modification is suggested, which would allow the river system to correct a number of the stressors (impoundment leading to degradation of in-stream habitat). As Figure 1 shows, dam modification would also allow fish to move upstream, thereby raising IBI scores north of the site. Indeed fish passage is the primary reason that fIBI scores fall so precipitously in that section of river and never recover. The latter note comes from viewing the data spatially and weighting the IPS output. The IPS tool suggests some obvious restoration projects, such as this one, that can be implemented rather quickly and have the highest expectations for restoring biological assemblages. Preliminary priority projects selected by the IPS tool are summarized in Table 1.

DRSCW used 42 stressors in its causal analysis. The list includes land cover stressors (industrial area, road density), water chemistry (chlorides, TSS, a full suite of nutrients including total phosphorus, etc.) and habitat (buffer width, channel sinuosity and similar habitat scoring metrics). The stressors used in the analysis do not directly list physical barriers to fish movement, such as dams or other control structures, although metrics affected by such structures, such as poor habitat or sediment conditions that exist due to the presence of impounded water upstream of a dam, are included. The statistical tool identified certain parameters from a suite of nutrients as stressors with an identifiable correlation to stream biological health. The tool examines relationships between the independent variables and goes further tolook at relationships with the species and taxa from which IBIs are constructed. Ammonia-N and TKN showed significant correlation.

Phosphorus Reductions

Both total phosphorus and the computed nitrogen to phosphorus ratio were evaluated as potential stressors, but a sufficiently strong correlation was not identified between phosphorus and the dependent variables (biological data) to include it in the prioritized list of proximate stressors. This is not an uncommon observation in urbanized watersheds where non-chemical and other chemical stressors exert much stronger effects on the biota. There may also be some covariance with another parameter, such as TKN, serving as a proxy for effects contributed by phosphorus. Phosphorus could manifest as a relevant stressor in the future after more significant stressor effects that may be masking the adverse effects of phosphorus are corrected. In lieu of the application of any new phosphorus limits in the current cycle of NPDES permits, this plan includes the following activities:

Specific Point-Source Actions Surrounding Phosphorus

All POTWs will, at their own expense without financial assistance from the Workgroup:

- Monitor phosphorus (total) and nitrogen (total) starting in 2015.
    - At minimum samples will be taken in influent and effluent as a single grab monthly.
    - Data will be reported as part of their DMR report and to the DRSCW.
- Evaluate the following measures as part of the phosphorus control feasibility study required in their NPDES permit:
    - Modify secondary treatment process sequence with available equipment to reduce effluent phosphorus levels without adversely impacting treatment performance.
    - Identify and reduce sources of phosphorus from generators discharging readily controllable quantities of phosphorus into the tributary collection system, and if applicable, develop and implement appropriate pre-treatment rules.
- Collaborate to gather preliminary data necessary for evaluating and comparing phosphorus reduction costs at each POTW in the program area.

The DRSCW will use its resources to explore and develop potential trading models for achieving targeted watershed scale reductions in nutrient loading.

Selected POTWs or the DRSCW will pursue innovative and alternative phosphorus control strategies:

- Investigate waste chemical clearing-house resources to identify and utilize renewable sources of chemicals that can be used to safely reduce effluent phosphorus in a sustainable manner.

- Evaluate and implement, where practical, nutrient recovery technology to cost-effectively sequester phosphorus from side streams to make marketable fertilizer products.
- Phosphorus removal that is incidental to other pollutant control processes.

Specific Nonpoint-Source Actions Surrounding Phosphorus

The DRSCW will review and report to Illinois EPA inside the time frame set out below on the following NPS actions:

- Enhanced street sweeping basin wide - review member current municipal street sweeping schedule and optimize by system (adoption of high efficiency regenerative air systems), time (concentration of effort in spring and fall) and location (by land use and traffic volume). Enhancement plan including projected nutrient loading abatement and cost estimation ready by 2018.
- All members will review, using in-kind resources, good housekeeping measures and contracts and consider inclusion of specific requirements to prevent cut vegetation from being deposited on impervious surfaces. Enhancement plan prepared by DRSCW with workgroup resources including projected nutrient loading abatement and cost estimation ready by end of 2018.
- Leaf litter management. DRSCW will follow the study being undertaken in Madison, Wisconsin about efficiency of leaf collection programs. If the program is cost effective, then DRSCW will use its resources to prepare an implementation plan one year after the study is published (approximately 2018). Review of member policies will be available by 2016. Member agencies are expected to provide in-kind services to assist with plan preparation.
- Use workgroup resources to conduct targeted public education on best management practices that reduce phosphorus loading within the watersheds (pilot test on one sub watershed).
- DRSCW will use its resources to review the interest in organizing a phosphorus reduction workshop modeled on its successful chloride reduction workshops, aimed at municipalities, landowners and contractors. If market research showes that such a workshop would have an audience and was likely to have measurable impacts, then it would commence in the fall of 2016 using workgroup resources.

Appendix 3. TMDL Implementation: Dissolved Oxygen

Project Background

In 2004, the Illinois EPA completed Dissolved Oxygen (DO) TMDL studies for several main stem reaches of Salt Creek and East Branch DuPage River. In order to achieve the Illinois DO standards, the TMDLs recommended concentration limits on CBOD5 and ammonia-nitrogen on area POTWs based on outputs from QUAL2E models developed for each waterway. The TMDL studies noted that POTW load reductions for oxygen demanding pollutants might be reduced if dam removal was implemented and that this could be further evaluated. Reactions to the TMDLs were unfavorable. POTW operators pointed to the large costs associated with reducing wastewater loadings; the Illinois Association of Wastewater Agencies (IAWA) estimated compliance costs at $48 M dollars for Salt Creek alone, and had reservations about the accuracy of the modeling outputs. IAWA noted that the models utilized design average flow (DAF) as opposed to actual flows, NPDES loadings as opposed to actual discharge loadings, data used were over seven-years old, and that the models had not been validated. All stakeholders, including the reports' authors, were skeptical that the reductions would improve aquatic biology, noting, "DMR data for POTWs show that average summer values for CBOD5 and ammonia are below the proposed limits…..thus it may be that these limits can be met with little or no additional treatment"(CH2M Hill 2004). While this statement admitted that the TMDL conclusions were in error, it did not account for the erasing of the margins of safety needed by POTWs to operate under their permit levels which would now require wastewater infrastructure investments to maintain. Environmental advocacy groups and the regulated community both questioned the accuracy of the models because they were not based on actual performance data and were not calibrated against ambient data.

In 2005, Illinois EPA came to an agreement with the DRSCW to delay implementation of the TMDL recommendations while the DRSCW developed a plan to address DO. Stakeholders immediately set about rebuilding the DO models. This first project, "Stream Dissolved Oxygen Feasibility Project" set the following objectives:

- Identify the principle low flow DO sags in both waterways;
- Evaluate the impacts of decreasing oxygen demanding loadings from POTWs on the low flow ambient DO concentrations;
- Evaluate the impacts of five existing dams on DO and, where significant, identify alternatives for specific dam sites,
- Identify criteria and sites where stream aeration could be used to improve DO levels during low flow conditions; and
- Determine financial impacts, including project capital costs, operation and maintenance needs, and costs associated with stream improvement projects (life cycle costs).

Model Selection

The DRSCW used QUAL2K to model the DO impairments. The QUAL2K model is capable of diurnally varying headwater/meteorological input data and includes a full sediment diagnosis model to compute sediment oxygen demand (SOD) and nutrient fluxes from the bottom sediment to the water column.

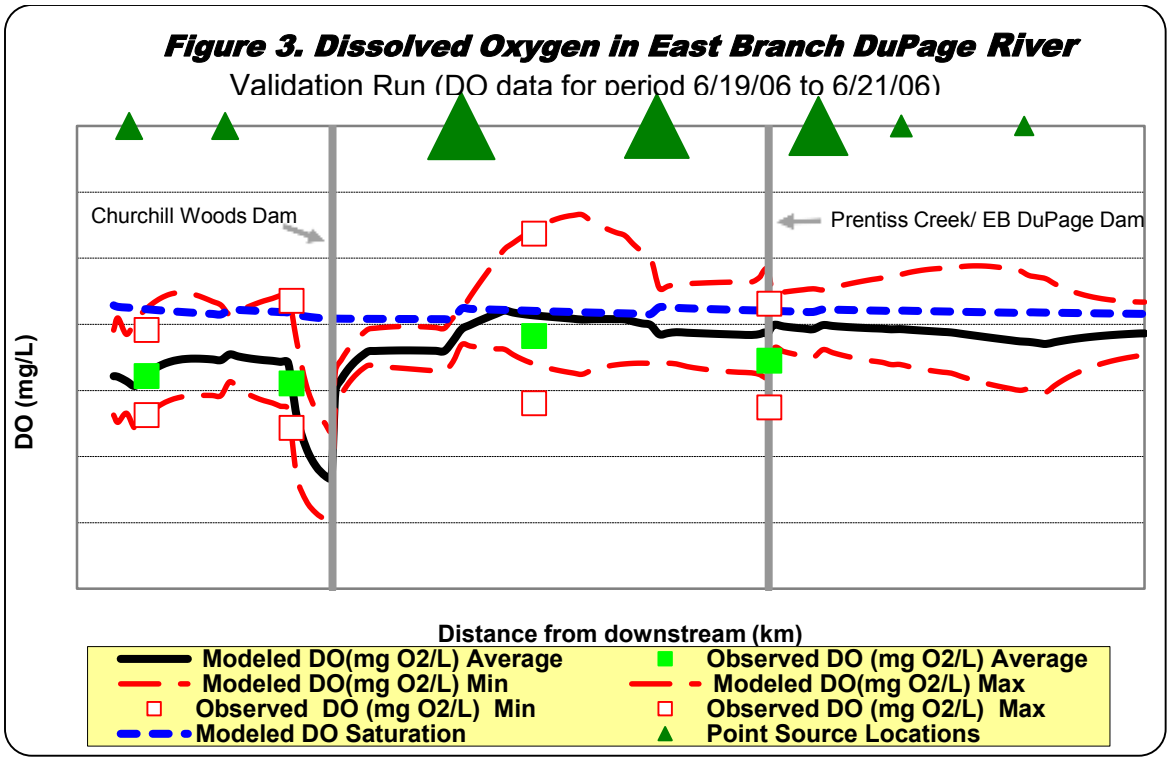
Input data from the QUAL2Emodel was used and the results of the TMDL model werereproduced prior to utilizing the new model's more refined functions. Geographical data for river miles and impoundment geometry was also refined.

Data Collection

A major criticism of the original DO model was its lack of quantitative data. While data were available on stream flow, wastewater flow, and effluent quality, very limited data existed on stream quality. Gathering such information became an immediate priority.

In the spring of 2006, the DRSCW set up a system of "continuous" DO monitoring stations. The stations collected information on DO, water temperature, conductivity, and pH at hourly intervals from May through September at six sites on Salt Creek and five on East Branch DuPage River (three additional sites on the West Branch not part of this modeling effort, were also deployed). Data on SOD were also collected at 16 sites.

All wastewater treatment facilities in the basins cooperated in the re-modeling exercise and supplied discharge monitoring data including daily values for flow, CBOD5, ammonia-nitrogen, total suspended solids (TSS) and pH to the modeling team. The DRSCW collected field coordinates for all the POTW outfalls in the two basins to ensure accurate spatial placement of the data. Additional data on river flow was collected from USGS records.



Calibrating the Model

Two calibration runs were completed for East Branch DuPage River and three were completed for Salt Creek. In the runs, model outputs were plotted against the continuous DO measurements taken during field sampling for the same date and the model was revised based on the results. Finally, model runs were conducted with the revised model, one for East Branch for the period June 19 – June 21, 2006 (shown here as Figure 3) which shows the computed DO against the ambient DO concentration observed for the same period. Computed DO is represented by the red and black lines and observed DO as green filled or red hollow squares. The diurnal range of the modeled DO is represented in both figures with the minimum and maximum DO values being shown. The green triangles shown along the top of Figure 3 represent the locations of POTWs discharging to the East Branch DuPage River. The relative size of each triangle is representative of the quantity of discharge supplied by the plant (they are shown as locations only in the other figures).

The calibrated and validated model was then used to predict ambient conditions under seven-day, ten-year low flow (7Q10) warm weather conditions using historical data sets compiled by the Metropolitan Water Reclamation District of Greater Chicago (which showed an ambient stream temperature of 30 deg C, several degrees higher than temperatures recorded during the validation/calibration periods) and warm weather flow and loadings from area POTWs. This model run was intended to reflect worst-case conditions. The baseline output for East Branch showed the principal DO sags were upstream of the Churchill Woods Dam on the East Branch DuPage River and upstream of the Fullersburg Woods Dam on Salt Creek.

Modeling Alternatives

The DRSCW was ready to use the baseline model run to project the impacts on ambient DO concentrations of various remediation efforts. The following alternatives were explored:

- Lower POTW loadings to zero while maintaining flow (a strictly theoretical exercise);
- Full removal of the Churchill Woods dam;
- Full removal of the Fullersburg Woods dam;
- Partial breach of the Fullersburg Woods dam;
- Lower the crest of the Fullersburg Woods dam by increments; and
- In-stream aeration with air or high-purity oxygen in the dam impoundments.

The "zero loading" model run for the East Branch DuPage River showed that the DO impairment would still exist at the site, even without any pollutant loading from the POTWs (see figure 5). Given that this POTW alternative was projected to cost more than $6 million, the preferred action at the Churchill Woods location became full dam removal (cost of $1.5 million).

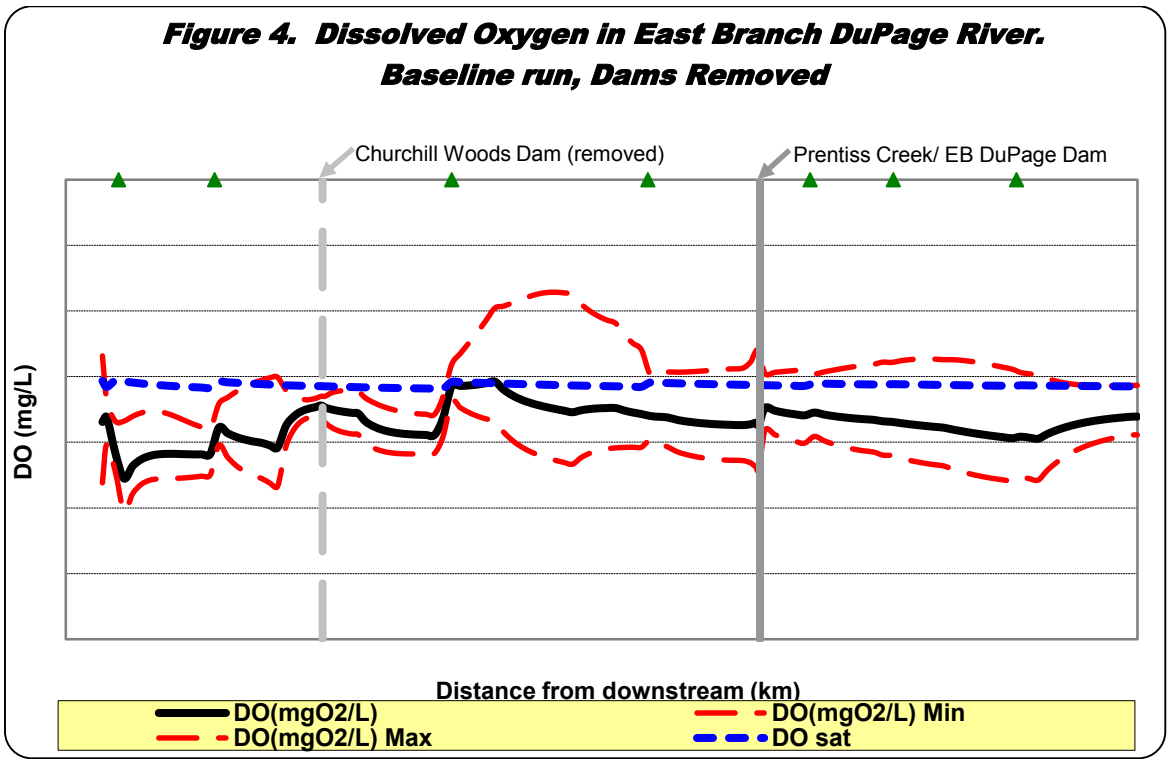
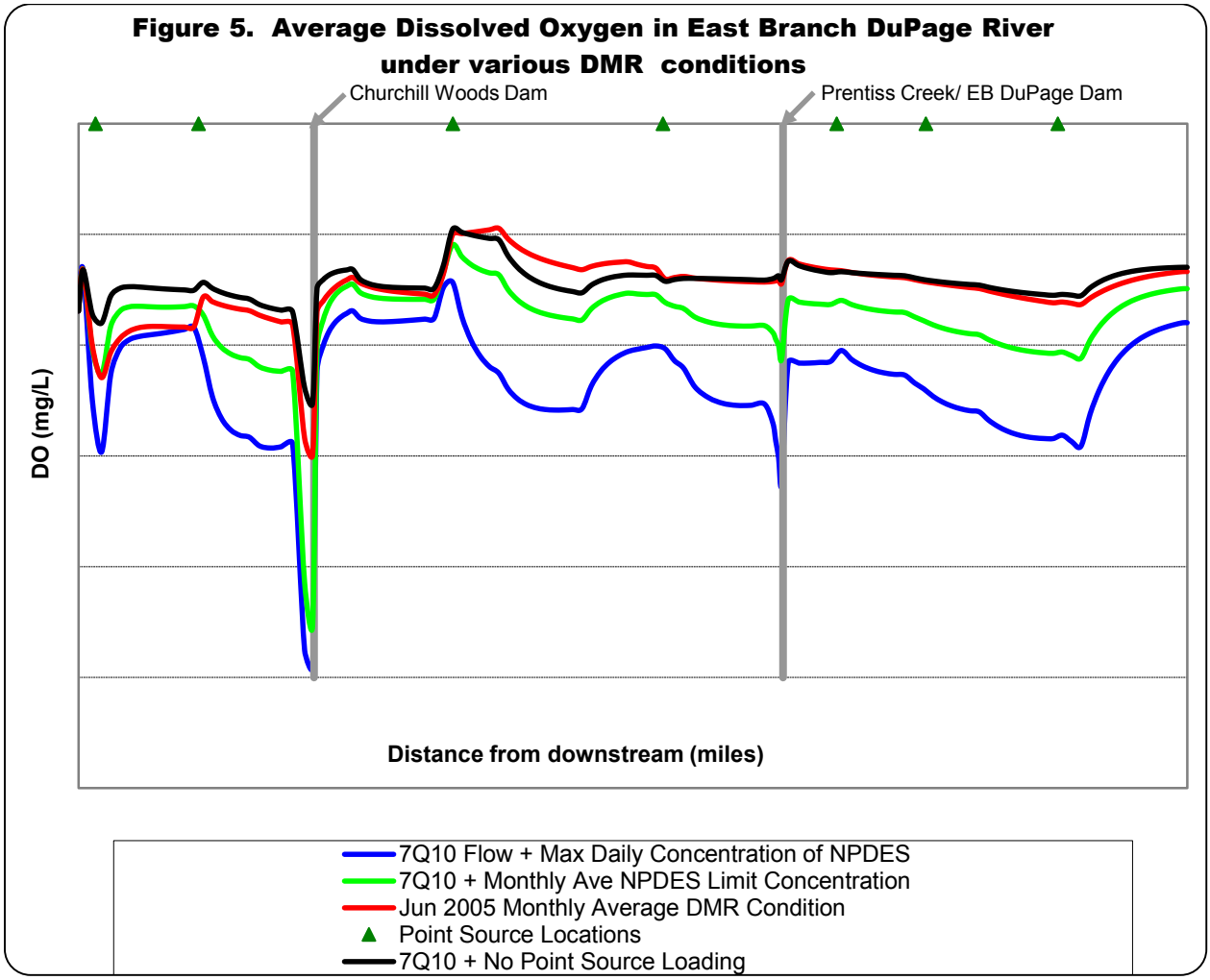


Figure 4. Dissolved Oxygen in East Branch DuPage River. Baseline run, Dams Removed

DO concentrations at the site would approach compliance following full removal. The dam removal modeled output is shown in Figure 4. The project was complicated by the presence of culverts immediately downstream of the dam that set the stream floor elevation higher than that used in the dam removal model. The project was carried out in March 2011 and fish surveys conducted three months later found two additional species of fish not previously

present had moved into the area of and upstream of the dam. The McDowell Grove and Warrenville Dams on the West Branch DuPage River have also been removed. The West Branch DO TMDL, currently under development, was triggered by excursions below the State DO standard in these impoundments. Monitoring at the sites will continue to confirm whether the project DO goals are achieved and if additional work is necessary.

Figure 5. Average Dissolved Oxygen in East Branch DuPage River under various DMR conditions



Project Proposal

DRSCW is proposing to design and implement the following projects as implementation of the TMDL. Details on the projects are supplied in Table 1. Monitoring and assessment under this initiative are integrated into the data gathering and analysis set out in Appendices 1 and 2 and the key recommendation of modifying the Fullersburg Woods dam is a priority on both the DRSCW TMDL and IPS project list:

- Modification of the Fullersburg Woods dam to eliminate the impoundment (Salt Creek Basin river mile 10.5).
- Full removal of the Oak Meadows dam (Salt Creek Basin river mile 23.5) and construct in-stream riffles.

- Monitor and document the impacts from the McDowell Grove, Warrenville and Churchill Woods dam removals/modifications and accompanying riffles on DO.
- Maintain the Continuous DO monitoring program but investigate adding chlorophyll a.
- Assist Illinois EPA in completing the DO modeling for the West Branch DuPage River.

The DRSCW will use its resources to conduct the following:

- Continuous DO and pH monitoring on all three waterways at present or expanded locations (currently at 15 sites). This effort includes in-kind services from Agency members for monitoring station installation, operation and maintenance.
- Review the QUAL 2K model for East Branch DuPage River following Churchill Woods dam modification, data accumulation, weather and other potential projects (Hidden Lake and Route 53).
- Modify the Fullersburg Woods dam and remove the Oak Meadows dam on Salt Creek to remove impoundments and abate related stressors, including dissolved oxygen. This effort is expected to leverage matching funds from local agencies, and could also include outside state or federal funding if available.
- Review the QUAL 2K model for Salt Creek post dam modification(s) based on data accumulation and weather.
- Assist Illinois EPA to complete analysis and conclusions of the West Branch QUAL 2K model (Illinois EPA TMDL output) and update to account for removal of the Warrenville Grove and McDowell Grove dams.
- At least five miles of program area river bank have been stabilized in the last three years (equating to approximately 1,000 lbs of phosphorous removed each year). Priority projects for the area include stabilizing approximately 17.5 additional miles of program area river bank (equating to approximately 3,538 lbs of phosphorus removed per year). Stream bank stabilization efforts can leverage local or other matching funding.
- Improve in-stream DO, by building pool and riffle sequences and increasing shading. The three dam modification projects completed for the area to-date have all included one or both of these additional actions. Pool and riffle construction can leverage local or other matching funding.

Appendix 4. TMDL Implementation: Chloride

Background

In October 2004, the United States Environmental Protection Agency (USEPA) approved chloride TMDLs for Salt Creek and the East and West Branches of the DuPage River. The TMDLs called for reductions in chloride loading, specifically from winter road salt application. The TMDLs for these watersheds were specifically derived to achieve compliance with the general use chloride water quality standard (WQS) of 500 mg/L adopted in 1972 by the Illinois Pollution Control Board (IPCB). The TMDL reports concluded that "[the] primary contributor to the [chloride WQS] exceedences is application of road salt for snow and ice control purposes. However, due to the sporadic nature of deicing activities, on a yearly basis the chloride mass contributed to the West Branch DuPage River watershed is larger from point sources than nonpoint sources." (IEPA, 2004, West Branch TMDL) The conclusions regarding Salt Creek and the East Branch are the same. In the West Branch watershed, a 35% reduction for chloride applied in deicing operations is specified, in the East Branch watershed a 33% reduction is specified, and a 14% reduction is specified in the Salt Creek watershed (IEPA, 2004, East and West Branch TMDLs). To initiate TMDL implementation, the DRSCW initiated a Chloride Usage Education and Reduction Program Study in 2006. The study findings and recommendations were used to develop the TMDL implementation program described further in this section. Through this program, the DRSCW hopes to catalyze changes in deicing practices and reduce salt application while maintaining public safety.

Data Gathering and Analysis

A local deicing program base line was set in 2007 by sending a questionnaire to about 80 deicing agencies, 39 of whom responded (representing approximately 69% of the total watershed area). These agencies reported a total annual salt use of 126,000 tons. Survey responses indicated a total of 8,369 lane miles of road serviced by deicing programs throughout the watershed. Out of the villages interviewed, only two required that private snow plowing businesses have licenses. In those municipalities the permits were required for the office locations only, and did not regulate how deicing practices are performed. Additionally, eight of approximately 130 private snow removal companies in the watershed area were contacted. Private contractors tend to serve commercial, industrial and residential customers, clearing parking lots and private drives rather than roads. Each company's typical annual salt use ranges from 7.5 to 500 tons per winter.

The total amount of chloride applied to the watersheds annually, in the form of road salt, was estimated from the questionnaire responses. The estimated load includes salt from municipalities, townships, the Illinois State Toll Highway Authority, and county transportation departments. Private snow removal companies and the Illinois Department of Transportation are not accounted for. Table 6 provides the estimated TMDL and DRSCW baselines per watershed and the TMDL target loading.

	Salt Creek	East Branch	West Branch	Total
TMDL Target, Tons of Cl-/yr	13,300	5,200	13,700	32,200
TMDL Baseline, Tons of Cl-/yr	15,500	7,800	21,100	44,400
DRSCW Baseline, Tons of Cl-/yr	32,600	16,900	21,200	70,700

Table 6. Estimated Current Chloride Loading from Road Salt in the Study Area, Compared with TMDL Road Salt Chloride Allocations. Table is for tons of chloride and does not include private snow removal companies or the Illinois Department of Transportation

Program Design and Implementation

The DRSCW carried out a literature review to identify the best management practices to reduce chloride loadings from winter deicing operations. The following target areas were identified:

- Improved Storage and Handling Practices
- Application Practices for Salt (level of service, staff training and record keeping, calibration of equipment, environmental monitoring)
- Chemical Methods – (the definitions used by Environment Canada (2003)):
    - "Anti-icing is the application of a deicer to the roadway before a frost or snowfall to prevent melted snow and ice from forming a bond with the road surface."
    - "Pre-wetting is the addition of a liquid to solid deicers or abrasives before application to quicken melting and improve material adherence to the road surface."

In order to improve the adoption of these best management practices, the DRSCW organized, training, technical materials and technical workshops targeting the following core areas:

- Highways staff education of NPDES goals, the impacts of chlorides on waterways, staff training on calibration of equipment, and improved salt storage and handling practices
- Watershed-wide implementation of prewetting and anti-icing programs
- Consideration of alternative non-chloride products, such as acetate deicers and beet and corn derivatives

Plate 1. **Flyer for the 2011 Public Roads Chloride Reduction Workshop]**

As of 2012, the DRSCW has conducted eight chloride reduction workshops throughout the program area. Four of these workshops have been aimed at public roads (largely the public sector) and three have been aimed at parking lots and sidewalks (largely the private sector). Over 400 participants have attended the public roads workshops, and over 100 attended the parking lots and sidewalks workshops. In a 2010 program survey, 14 agencies confirmed that they had made improvements to their program based on local deicing program workshops. The following is a list of changes reported by agencies due to information gathered at deicing workshops:

- Cutting back salt usage by: re-calibrating salt spreaders, applying less salt per lane mile, and not salting until snow plowing has been completed;
- Obtaining and implementing new equipment for pre-wetting and anti-icing practices;
- Spreading salt in a narrow band down the center of two-lane streets to reduce scatter; and
- Using beet juice as an alternative deicing agent.

A noteworthy finding from the survey is that the private sector (e.g., contractors that provide deicing services at hotels, schools, stores), and who had been initially assumed to have minimal impact, actually apply significant amounts of salt and contribute significantly to chloride loadings. Addressing these activities will likely require different approaches and different

implementation tools. For example, DRSCW is looking at the possibility of having member municipalities adopt licensing programs or ordinances governing operations to require private companies to implement the identified BMPs, especially for storage.

Salt Application Rates and Trends

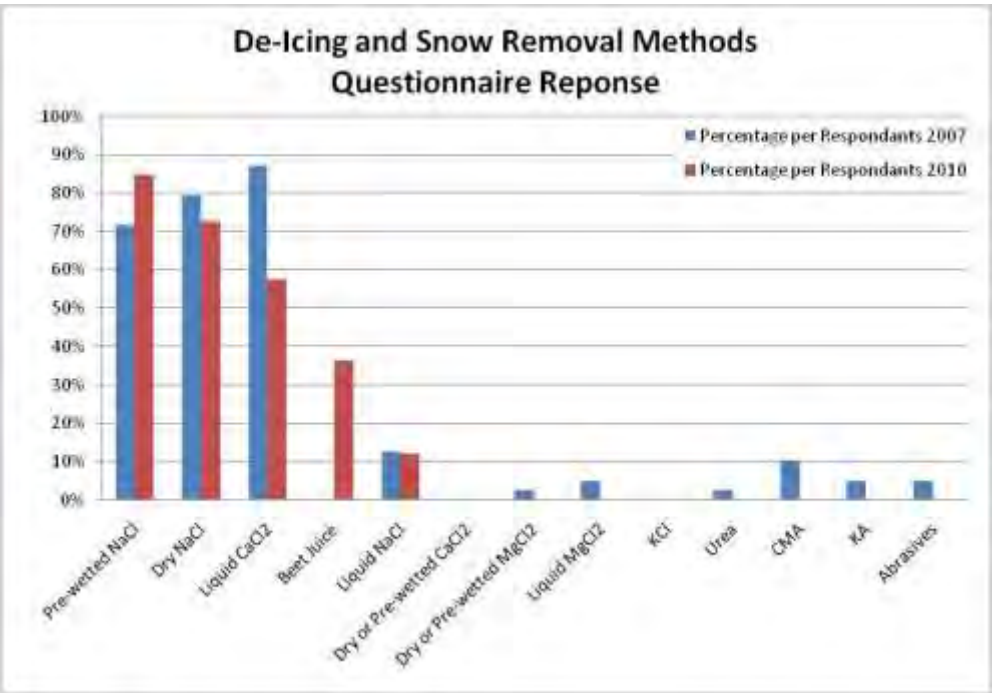


Figure 6 – Use of Deicing and Snow Removal Agents 2007 & 2010]

Many of the questions in the surveys focused on the use of alternative deicing agents, methods, and practices such as pre-wetting and anti-icing. Figure 6 illustrates the percentage of respondents that use various deicing agents as reported in the 2007 and 2010 questionnaires. Figure 6 shows an increase in the amount of agencies using pre-wetted salt (NaCl) and beet juice and a corresponding decrease in the use of dry NaCl, liquid CaCl2, KA, abrasives, and liquid MgCl2. Information provided in 2007 indicated that 14 agencies reported the use of anti-icing practices, while in 2010, 20 agencies reported using anti-icing practices. This has resulted in an approximate 25 percent increase in the implementation of anti-icing practices. Figure 7 shows salt application rates over the past three winter seasons provided by DuPage County DOT.

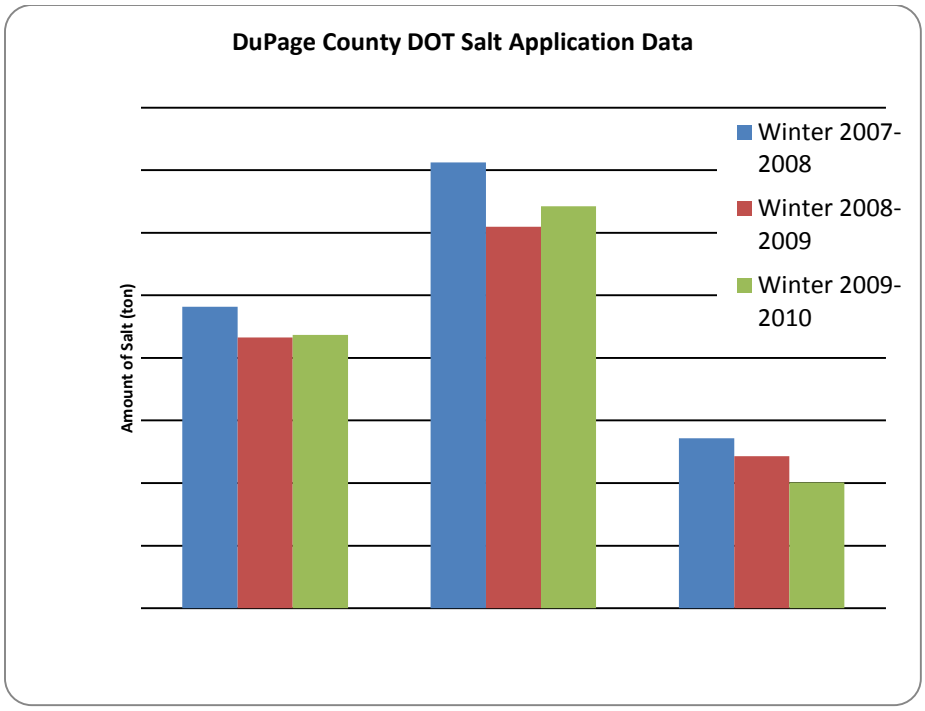


Figure 7 – DuPage County DOT Salt Application Data, 2007-2010]

Figure 7 shows that DuPage County DOT has reduced their salt usage per inch of snow consistently over each of the last three winter seasons. Salt used per call out (the number of times trucks were called out to perform deicing operations) and salt used per snow event has varied by season and weather events, as would be expected.

Snowfall in DuPage County during the 2007-08, 2008-09, and 2009-10 winter seasons was above average for the region and greater than the snowfall experienced during the 2006-07 winter season when the original survey was distributed. As would be expected, the total amount of salt used in the winter seasons was higher during seasons with more snow and less in seasons with less snow. It is important to normalize the results between winter seasons based on the severity of the winter season.

The 2010 survey asked respondents about their average salt application rate per lane mile. This information allows for more accurate tracking of a community's salt usage as it is less weather dependent than a total salt used per year. Based on data from responses to the 2010 survey, Figure 8 shows the average annual salt usage in lbs/lane mile for each watershed in the study area. Figure 9 shows the same information by placing the respondents into ranges of application rates.

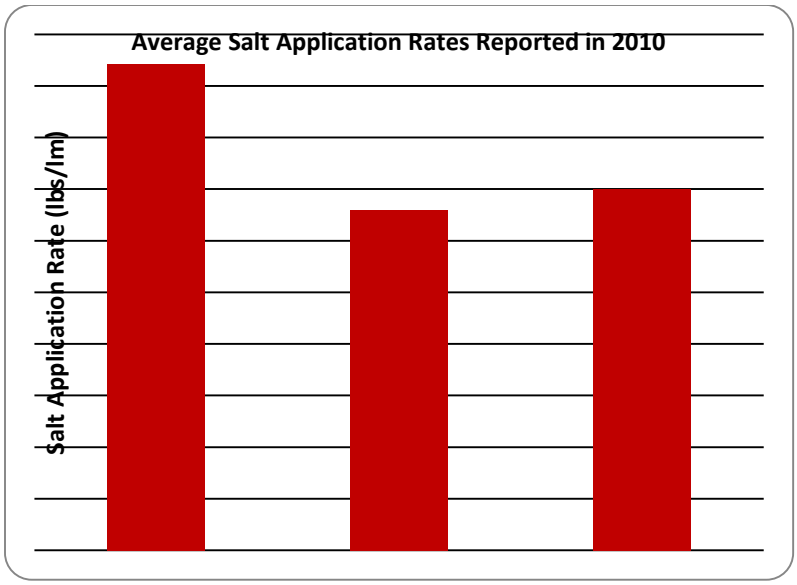


Figure 8 – Average Salt Application Rates Reported in 2010]

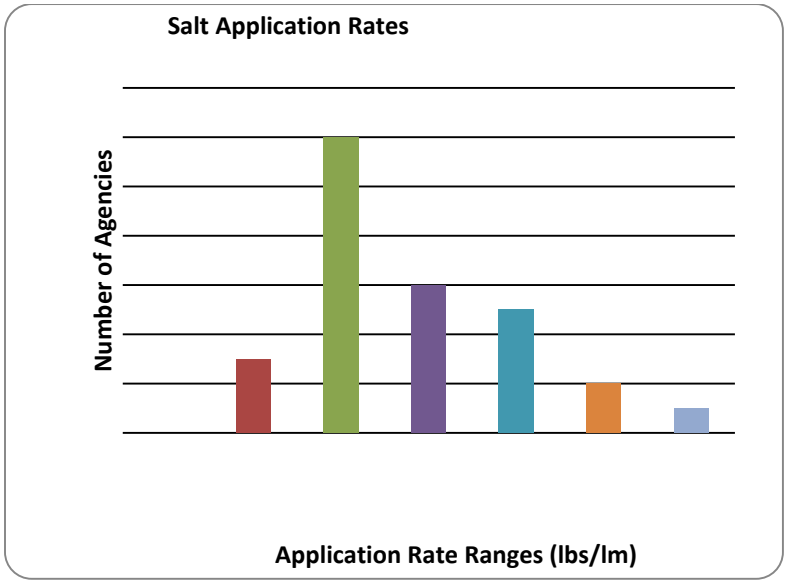


Figure 9 – Application rate ranges for surveyed municipal members]

Survey Conclusions

The purpose of the 2010 survey was to gather follow-up information to determine if alternative deicing practices are being implemented in the DuPage River and Salt Creek watersheds and any resulting effects on salt application rates. While not directly comparable, survey responses indicate that the use of alternative deicing practices has increased since 2007, and select agency data indicates a general reduction in salt application rates between 2007 and 2010. Improvements in deicing practices and lower application rates are the result of an increase in the price of road salt and improved education and information provided by local deicing program workshops.

In order to perform a more definitive trend analysis of program improvements and reductions in salt usage, additional information will need to be collected over time. Information should be collected for several more years to continue to characterize deicing program improvements and resulting reductions in salt usage occurring within the DRSCW watersheds, and indicate water quality improvements.

Project Proposal: Chlorides

Details on the projects provided below are supplied in Table 1. Monitoring and assessment under this initiative are integrated into the data gathering and analysis set out in Appendices 1 and 2. Chloride is one of the proximate stressors identified by the stressor ID methodology described in Appendix 1. DRSCW will continue with this program by executing a minimum of two workshops per year to meet the following 5-year bench marks (based on the current municipal survey group of 33 agencies):

- Increase agencies participating in survey to 43 (currently 33)
- Move all agencies application rate to < 500 lbs/lm (currently 3 higher than that)
- Increase number of agencies anti-icing to 18 communities (currently 12)
- Increase number of agencies pre-wetting (currently 33, new additions will come from new participants)
- Reduce number of agencies storing exposed salt to 0 (currently 11)
- Carry out full review of current calibration practices and improve it by 50%
- Train 30 private companies and 10 parks departments to carry out regular calibration on equipment

Elgin O'Hare Western Access Project Offset Program

The DRSCW will work collaboratively with the Illinois Tollway (the Tollway) to identify opportunities and implement measures that help reduce and offset additional chloride loading created by the Elgin O'Hare Western Access Project (EOWA) within the DRSCW's program area. It is estimated that the project will introduce approximately 1500 tons of sodium chloride into the DRSCW program area annually. The Tollway and the DRSCW will cooperate to calculate additional loadings based on agreed upon assumptions about winter storm frequency and severity.

The Offset Program will establish a framework to offset increased loadings by a ratio of 1 ton incremental increase to 1.25 offset. The offset will be realized by "Tier 1" communities, local government entities that are immediately upstream or bridging the project corridor, and the Tollway.

The Tollway will identify operational efficiencies that will result in reduced application rates. The DRSCW will review the winter operations of the Tier 1 communities for efficiencies in the following areas:

1) Driver training
2) Salt spreader calibration
3) Develop appropriate application rates
4) Pre-wet de-icer
5) Equipment updates
   - Speed servo controls
   - On-board pre-wet
   - Computer controls
   - Storage & Handling
6) Coordinate salt application during plowing
7) Control salt spread width
8) Prioritize road system
9) Anti-Ice

The Tollway will provide funding for Tier 1 communities to implement identified efficiencies to reduce their chloride loadings. The aggregate of the two reductions (Tollway + Tier 1 communities) will be greater than the calculated marginal increase in chloride loading created by the Elgin O'Hare Western Access Project.

Appendix 5 Polycyclic Aromatic Hydrocarbons

Early workgroup monitoring found polycyclic aromatic hydrocarbons (PAHs) in stream sediment throughout the watershed. PAHs are a known stressor impacting stream health. Recent research shows that a significant source of PAHs is the use of coal tar based sealants (RT-12). The DRSCW will educate its members on coal tar based sealants (RT-12) as a source of PAHs. The DRSCW has produced a draft Memorandum of Understanding (MOU) for members to sign. The MOU commits the Public Works Department of the signing entity to discontinue the use of coal tar based sealants (RT-12). 75% of the DRSCW agency members will execute the MOU. Copies of the executed MOUs will be transmitted to IEPA before the expiration date of the pending NPDES permits.

DUPAGE RIVER SALT CREEK WORKGROUP
M E M O

TO: All DRSCW Agency Members

FROM: Larry Cox and Stephen McCracken

DATE: February 16, 2015

RE: Updates to Proposed NPDES Permit Special Condition Language and Recommended Agency Member Dues, Agency Member Assessments and Local Project Matches to Implement DRSCW Project Funding Plan

Proposed NPDES Permit Special Condition Language

We previously prepared draft special condition language to be included in the NPDES permits of DRSCW Agency members owning a POTW within the DRSCW watersheds. This draft language has been reviewed by DRSCW members and representatives of several environmental groups, IEPA and, most recently, USEPA Region 5. We have prepared a proposed revised version of this language, in response to a version received from USEPA Region 5, which reflects comments received from DRSCW Executive Board members and from DRSCW POTW members during special meetings held on January 30 and February 13, 2015. A copy of this version of the special condition language is attached as Exhibit 1. A consensus appears to developing around special condition language which we anticipate will be incorporated soon into the NPDES permits of DRSCW Agency members owning a POTW within the DRSCW watersheds. This special condition represents acceptance of the proposed DRSCW local funding initiative based upon the IPS tool for an eight year project assessment period, followed by a three year period to implement phosphorus reduction to a monthly average limit of 1.0 m/g at those POTWs. Upon final acceptance of the special condition language by IEPA and USEPA Region 5 later this spring, it is envisioned that the project assessments detailed in this document would begin soon thereafter, perhaps as early as this summer or fall. The January 2013 draft white paper detailing this project funding initiative entitled “DuPage River Salt Creek Workgroup Adaptive Watershed Management to Achieve the Designated Use for Aquatic Life: Proposed Local Funding Initiative” may be viewed on the DRSCW website (http://www.drscw.org/projectID.html.).

Duration of Compliance and Assessment Schedules

The special condition and assessment schedule previously submitted by DRSCW to IEPA and USEPA Region 5 contained project assessments over a ten year period and compliance schedules of twelve years for phosphorus removal by chemical precipitation and thirteen and a half years for biological phosphorus removal. Under this prior proposal, following a ten year project assessment period, a POTW would have had two

years to design and construct chemical precipitation facilities or three and a half years to design and construct biological phosphorus removal facilities. The special condition returned to DRSCW by IEPA and USEPA Region 5 now contains compliance schedules of ten years for chemical precipitation and eleven years for biological phosphorus removal. In order to insure that a POTW does not pay a project assessment and the capital cost of phosphorus removal facilities during the same year, the proposed assessment schedule will be reduced by two years, from ten years to eight years.

Overview of Recommended DRSCW Funding Plan

DRSCW Agency members are public agencies holding an NPDES permit for a discharge from a publicly owned treatment works or from a municipal separate storm sewer system into the DRSCW watersheds. DRSCW Agency members currently fund the monitoring, assessment, administration and project identification and prioritization activities of the Workgroup through annual dues. Under the proposed DRSCW funding plan, Agency members with a POTW will contribute to project funding through a project assessment amount in addition to their inflation adjusted membership dues. The project assessments will be combined with a local match from project sponsors to fund projects prioritized by the process contained in the plan. These projects include the required projects contained in the special condition to be incorporated into the NPDES permits of DRSCW Agency members owning a POTW and, if funding allows, additional projects to be identified under the process contained in the plan. The DRSCW funding plan recommends total project assessments of $15,738,831, local project matches of $10,492,557 and total project funding of $26,231,388 over the eleven year period covered by the NPDES permit special condition (eight year project assessment period), **if all DRSCW Agency members owning a POTW participated in the voluntary project assessments and all projects receive a 40% match from local project sponsors.** The proposed funding level would start at $1.5M in the first year. This initial funding level allows DRSCW and its Agency members to work out the implementation of this new funding initiative and build local support for projects as the funding level increases through the fifth year of the program.

Estimated Cost of Alternative Stream Improvement Projects

The special condition and implementation plan previously submitted by DRSCW to IEPA and USEPA Region 5 contained a process to identify and prioritize alternative stream improvement projects based on the IPS tool and other factors, a proposed list of such projects and a proposed schedule of assessments to POTW members based on estimated phosphorus removal O&M cost savings. The specific projects to be completed and the total amount to be invested in such projects was to be determined by DRSCW members collectively based on the level of participation in the assessment process by DRSCW Agency members with a POTW and the local matches received from project sponsors. The special condition returned to DRSCW by IEPA and USEPA Region 5 now contains a compliance schedule with anticipated completion dates for a list of specific projects. The estimated costs of the projects included in the special condition are provided below:

Project Name	Estimated Project Costs
Oak Meadows dam removal and stream restoration	$2,250,000
Fawell dam modification	687,500
Springbrook dam removal and stream restoration	1,000,000
Fullersburg Woods dam modification and stream restoration	2,500,000
Southern WBDR physical enhancement	1,000,000
Southern EBDR stream enhancement	1,500,000
QUAL 2K model update for EBDR and WBDR	200,000
NPS phosphorus feasibility analysis	150,000
Nutrient Implementation Plan (NIP) and Trading Analysis	500,000
Subtotal	$9,787,500
Contingency (5%)	489,400
Total Estimated Project Costs	$10,276,900

The estimated project cost of $10,276,900, therefore, now becomes the minimum funding level necessary to insure compliance with the special condition language. Under the most conservative approach, which includes only project assessments and excludes any local matches, a participation level of 65% of the recommended assessments of $15,738,831 must be achieved before any POTW would consider accepting the special condition language in their NPDES permit. As previously stated on numerous occasions, the proposed project assessments contained in this plan are **not** subject to a reassessment process should participation by DRSCW Agency members which own a POTW be less than 100% or should local project matches not materialize at the 40% level. While the minimum funding level is necessary to initiate the funding plan; it does not diminish the overall target funding level of $26,231,388 over the eight year assessment period and the DRSCW will strive to achieve that target.

IGIG Grant

The DRSCW, in conjunction with DuPage County and the Forest Preserve District of DuPage County, received last fall a grant award from the State of Illinois for an IGIG grant in the amount of $2,700,000 for the DuPage River Watershed Green Infrastructure Project. This grant project consists of the Oak Meadows dam removal and stream restoration, Fawell dam modification and Springbrook dam removal and stream restoration projects listed above. In January of this year, however, Governor Rauner announced a grant freeze, which effectively froze the DRSCW grant. While the DRSCW and its grant partners are attempting to unfreeze this grant, we cannot consider this grant amount as available to meet the minimum project funding level discussed above. If the grant should be received in a timely manner, the grant amount of $2,700,000 would be applied to the minimum project funding level discussed above, which would reduce the minimum participation level in the recommended assessments of $15,738,831 from 65% to 48%, or otherwise if the grant amount is different.

Implementation of the DRSCW Funding Plan

IEPA has indicated that the DRSCW special condition, upon final acceptance of the language by IEPA and USEPA Region 5, will be incorporated first into the proposed draft NPDES permit for the Downers Grove Sanitary District. Shortly thereafter, it will be incorporated into the proposed draft permits for several other DRSCW Agency members. As these agencies will need to know whether there is sufficient interest in participating in the proposed DRSCW assessment and funding plan to meet the minimum level of participation discussed above, an Agreement will be prepared for adoption by those Agency members with a POTW that desire to accept the special condition in their permit, participate in the DRSCW funding program and pay the dues and assessment for their Agency as detailed in that plan. Under the Agreement, participating DRSCW Agency members will: continue funding the DRSCW monitoring, assessment, and administration activities at inflation adjusted current levels through the payment of annual DRSCW Agency member dues; fund project implementation at the level identified here through the payment of an annual DRSCW project assessment; implement agreed upon projects; and report project implementation progress and spending via an annual progress report submitted to Illinois EPA, the first of which will be submitted on January 1, 2016. Under the Agreement, the DRSCW will administer the funding program; enter into contracts with project sponsors to design and construct the selected projects; identify, prioritize and build consensus for additional projects beyond those contained in the special condition table; prepare and submit reports as indicated in the special condition table and return any unused project assessment funds to Agency members in proportion to their assessment payments. The Agreements will not be accepted by the DRSCW until the Workgroup has received signed Agreements containing assessment payment pledges from enough DRSCW Agency members to meet the minimum funding level discussed, i.e. $10,276,900 with no IGIG grant or an appropriate reduction in that minimum amount if the IGIG grant is timely received. The Agreement would provide that the first year's assessment amount would be due and payable within four months of the acceptance of the Agreements by the DRSCW and the assessment each following year would be due in the same manner as annual dues. The DRSCW will provide an Agreement to each Agency member with a POTW as soon as the special permit language has been accepted by IEPA and USEPA Region 5, with a request for prompt action by each Agency's governing Board.

DRSCW Assistance with Agreement Adoption

The DRSCW has previously presented the funding plan at various meetings of the DuPage Mayors and Managers Conference and the current version will be presented again in the near future, with a request for support or endorsement of the plan for those Agencies desiring to participate. In addition, DRSCW Executive Board members or staff are willing to attend the appropriate meeting of your Board to discuss this plan.

Summary

It must be clearly understood that the estimated project funding total of $26,231,388 contained in this funding plan represents the preferred and targeted funding goal. It is based on 100% participation by all DRSCW Member agencies, which own a POTW discharging into DRSCW watersheds, through the payment of the project assessments each year. A DRSCW Agency member which elects not to participate in the DRSCW watershed implementation plan would not contribute to the proposed project funding but rather would negotiate directly with the Illinois EPA on an appropriate limit and compliance schedule for phosphorus removal in their NPDES permit. In addition, the estimated $26,231,388 project funding level is based on the contribution of local matches of 40% of the cost of each individual project from local project sponsors, above and beyond the project funding assessments paid by DRSCW Agency members. The proposed project assessments contained in this funding plan are not subject to a reassessment process should participation by DRSCW Agency members which own a POTW be less than 100% or should local project matches not materialize at the 40% level. It is also anticipated that the estimated project funding level will vary from the annual estimates contained in this plan but that the appropriate funding target is total project funding over the eight year period and the DRSCW will strive to achieve that target.

The cost of this approach to local government entities is assessed at the level needed for successful implementation of the plan. Along with a high probability of moving towards the aquatic life thresholds, it creates an incentive for members to participate, allows local government to offset the risk of investing in an untried methodology by creating short term savings, encourages them to invest outside of their jurisdictions, and, if the program is successful, helps to validate its efficacy. The selection of projects to be funded will start with the projects prioritized by the IPS tool and then proceed to reflect other factors such as readiness to proceed, project sponsors willing to provide local match, etc. as deemed appropriate during the consensus building process of project selection at the DRSCW.

Details of Recommended DRSCW Funding Plan

The attached dues and assessments schedule contains the updated and recommended funding plan, as previously presented in our memos dated May 6, 2013 and April 4, 2014, with the proposed implementation of the funding mechanism anticipated to begin later this year. The attached document contains detailed estimates of dues and assessments for each DRSCW Agency member and calculation rates for each dues and assessment component over the entire eight year project funding program. The proposed project funding level would start at $1,500,000 in the first year. This initial funding level allows DRSCW and its Agency members to work out the implementation of this new funding initiative and build local support for projects. The recommended funding plan increases the level of project funding gradually over the initial five year period of this program under the following assumptions:

1) Agency member dues would increase by 3% each year, as previously presented.
2) A dues component for an additional DRSCW staff position would be allocated 2/3 to Agency members with a POTW and 1/3 to Agency members without a POTW, which is the same dues allocation formula used since the formation of the Workgroup. The additional staff component has been included in the calculation of dues for FY 15-16, beginning at $75,000 for that year and increasing by 3% per year, as previously presented.
3) A proposed assessment for project funding and would be allocated 100% to Agency members with a POTW and the project assessment would be in addition to annual dues, as previously presented.
4) Over the entire eight year period from FY 15-16 through FY 22-23, the recommended funding plan would generate total project funding of $26,231,388, consisting of Agency member project assessments of $15,738,831 and local project sponsors matches of $10,492,557 (see Table 1, page 9).
5) The recommended funding plan would generate dues, project assessments and local matches each year as indicated below:

Year	DRSCW Agency Member Project Assessments	Local Matches from Project Sponsors	Total Amount of Annual Project Funding	DRSCW Agency Member Dues	Total Annual DRSCW Program Funding
FY 15-16	$900,000	$600,000	$1,500,000	$430,483	$1,930,483
FY 16-17	927,001	617,999	1,545,000	443,400	1,988,400
FY 17-18	1,516,529	1,011,021	2,527,550	456,714	2,984,264
FY 18-19	1,562,028	1,041,355	2,603,383	470,409	3,073,792
FY 19-20	2,589,444	1,726,296	4,315,740	484,501	4,800,241
FY 20-21	2,667,131	1,778,087	4,445,218	499,065	4,944,283
FY 21-22	2,747,142	1,831,428	4,578,570	514,031	5,092,601
FY 22-23	2,829,556	1,886,371	4,715,927	529,447	5,245,374
Totals	$15,738,831	$10,492,557	$26,231,388	$3,828,050	$30,059,438

The attached tables include the following information:

Current and potential DRSCW Agency members

The table contains a list of the current 37 DRSCW Agency members. In addition, there are an additional 24 public agencies holding an NPDES permit for discharges from a public separate storm sewer system into the DRSCW watersheds and these Agencies are listed as potential Agency members. All of the POTWs discharging into the DRSCW watersheds are owned by DRSCW Agency members.

Total Tributary Area and Total Tributary POTW MGD

The total tributary area for each public agency with an NPDES permit for storm water and the total tributary POTW MGD are listed. These amounts are utilized to calculate DRSCW member Agency dues and assessments.

Current FY 14-15 Dues (effective 3/1/14)

Agency member dues for FY 14-15, effective March 1, 2014, increased 3% as previously budgeted. The amount of the FY 14-15 dues and the increase from the prior year's dues are listed for each Agency. Current DRSCW Agency member dues ($320,657) represent 94% of the total amount of dues from all eligible Agency members ($341,112) (see Table 2, page 10).

Proposed Dues and Assessments – FY15-16 through FY 22-23

The dues, including a new staffing component, assessments for project funding, total dues and assessments and estimated O&M costs of phosphorus removal for each Agency member are provided for each year from FY 15-16 through FY 22-23, as detailed in the calculation method discussed above (see Tables 3 through 10, pages 11 through 18).

Eight Year Totals – FY 15-16 through FY 22-23

The eight year totals of dues, project funding assessments and total dues and assessments for each Agency member are provided for the entire eight year project funding period, FY 15-16 through FY 22-23 (see Table 1, page 9).

Calculation Rates

At the bottom of the table, the calculation rates are provided for each of the columns in the table. DRSCW Agency member dues and assessments are calculated as follows: (fixed component) plus (tributary acreage times rate per acre) plus (POTW MGD times rate per MGD).

Estimated Phosphorus Removal O&M Costs ($130/MG)

The key element of the proposed funding program is no NPDES obligations for phosphorus removal at DRSCW Agency member POTWs for a period of eight years. This would both allow, and be contingent upon, DRSCW members making funds available for identified projects, as detailed in this memo. The table contains a calculation of the estimated O&M costs of phosphorus removal for Agency members with a POTW(s) as a reference for comparison for each year from FY 15-16 through FY 22-23. The estimated cost of $130/MG for FY 14-15 is based on the high point of the range of O&M costs presented to the Workgroup on June 27, 2012 by Pavel Hajda, Symbiont, for phosphorus removal to Level 1P (1.0 – 1.5 mg/l) with chemical addition only. The source of this estimate is the USEPA Municipal Nutrient Removal Technologies Reference Document, dated September 2008. The high point of the range was selected for our purposes based upon the recommendation of Mr. Hajda, in large part because the cost data in the USEPA report is already several years old. In utilizing these cost estimates, each Agency member should keep in mind any necessary modifications to the estimated removal cost based on individual circumstances at their

POTW(s). The estimated O&M cost of phosphorus removal is inflation adjusted (3% per year) and was utilized to establish the proposed schedule of project assessments.

Cost Savings of Proposed DRSCW Program over Phosphorus Removal O&M Costs

Table 11 (see page 19) presents the total cost savings of the proposed DRSCW funding program over the estimated phosphorus removal costs across all three DRSCW watersheds. Table 12 (see pages 20 through 38) presents the cost savings of the proposed DRSCW funding program over the estimated phosphorus removal costs for each DRSCW Agency member with a POTW. As the cost to design and construct phosphorus removal facilities is essentially the same in both scenarios, just occurring at different times, these costs were not included in either scenario.

In both tables, the baseline conditions assume no DRSCW funding program and the implementation of phosphorus treatment at all POTWs in the DRSCW watersheds within three years (2018). Under baseline conditions, the watershed would spend an estimated total of $118,933,065 on phosphorus removal over the 15 year period extending through 2029. Under the eight year DRSCW funding program, the watershed would spend $44,413,407 on phosphorus removal and invest $26,231,388 of total project funding, or $15,738,831 in project assessments, on watershed projects identified by the IPS tool, for a cost savings of $48,288,270 over the same 15 year period. These calculated cost savings obviously do not include the expected significant benefit of the proposed projects on local watersheds.

Next Actions

We propose to review this recommended funding plan and special condition language during the DRSCW special meeting with all members at the rescheduled annual meeting to be held on March 11.

DuPage River Salt Creek Workgroup					**TABLE 1**
Proposed Dues and Assessments			**EIGHT YEAR PROGRAM TOTALS**		
Summary by Eight Year Period			**FY 15-16 THROUGH FY 22-23**		
February 16, 2015					
		Total		Project	
	Total	Tributary		Funding	
	Tributary	POTW	Annual	Assessment	Total
	Acreage	MGD	Dues	Amounts	Amount
Current Agency members					
Addison	6,053	8.50	$169,297	$852,591	$1,021,888
Arlington Heights	895		6,949	0	6,949
Bartlett	3,765	3.68	80,756	369,122	449,878
Bensenville	1,575	4.70	84,712	471,432	556,144
Bloomingdale	4,413	3.45	80,714	346,051	426,765
Bolingbrook	130	5.04	82,076	505,536	587,612
Carol Stream	5,908	5.40	119,681	541,646	661,327
Clarendon Hills	446		4,466	0	4,466
Downers Grove	9,162		52,641	0	52,641
Downers Grove SD		11.00	175,203	1,103,353	1,278,556
DuPage County	46,189	12.50	454,115	1,253,810	1,707,925
Elmhurst	6,504	8.00	163,915	802,439	966,354
Glen Ellyn	4,274		25,626	0	25,626
Glenbard WW Authority		16.02	254,245	1,606,883	1,861,128
Glendale Heights	3,450	5.26	103,892	527,604	631,496
Hanover Park	4,251	2.42	63,602	242,739	306,341
Hinsdale	537		4,970	0	4,970
Hoffman Estates	3,581		21,797	0	21,797
Itasca	3,187	2.60	60,556	260,792	321,348
Lisle	4,303		25,785	0	25,785
Lombard	6,318		36,923	0	36,923
MWRDGC	16,251	42.00	753,131	4,212,805	4,965,936
Naperville	12,882		73,204	0	73,204
Northlake	1,728		11,551	0	11,551
Oakbrook Terrace	923		7,104	0	7,104
Roselle	3,385	3.40	74,249	341,037	415,286
Salt Creek SD		3.30	53,960	331,006	384,966
Schaumburg	10,532		60,217	0	60,217
Villa Park	3,039		18,799	0	18,799
Warrenville	3,571		21,739	0	21,739
West Chicago	8,199	7.64	167,617	766,328	933,945
Westmont	2,465		15,625	0	15,625
Wheaton	7,276		42,218	0	42,218
Wheaton SD		8.90	142,138	892,713	1,034,851
Winfield	1,645		11,093	0	11,093
Wood Dale	2,095	3.10	62,391	310,944	373,335
Woodridge	3,426		20,939	0	20,939
Subtotals	192,358	156.91	$3,607,896	$15,738,831	$19,346,727
Potential Agency members					
Subtotals	31,136	0	$220,154	$0	$220,154
Grand Totals	223,494	156.91	$3,828,050	$15,738,831	$19,566,881
Proposed Project Funding					
Assessments				**$15,738,831**	
Local matches				**$10,492,557**	
Total Project Funding				**$26,231,388**	

DuPage River Salt Creek Workgroup							TABLE 2
Proposed Dues and Assessments							
February 16, 2015							
			CURRENT DUES (EFF 3/1/14)				
		Total					
	Total	Tributary				Total	Amount
	Tributary	POTW	Fixed	Acreage	WTP	Annual	of
Agency Members	Acreage	MGD	Component	Component	Component	Dues	Increase
Current Agency members							
Addison	6,053	8.50	$218	$2,959	$11,839	$15,016	$437
Arlington Heights	895		218	438		656	19
Bartlett	3,765	3.68	218	1,841	5,126	7,185	210
Bensenville	1,575	4.70	218	770	6,546	7,534	218
Bloomingdale	4,413	3.45	218	2,158	4,805	7,181	209
Bolingbrook	130	5.04	218	64	7,020	7,302	213
Carol Stream	5,908	5.40	218	2,888	7,521	10,627	308
Clarendon Hills	446		218	218		436	12
Downers Grove	9,162		218	4,479		4,697	136
Downers Grove SD		11.00	218		15,321	15,539	452
DuPage County	46,189	12.50	218	22,582	17,410	40,210	1,169
Elmhurst	6,504	8.00	218	3,180	11,142	14,540	423
Glen Ellyn	4,274		218	2,090		2,308	67
Glenbard WW Authority		16.02	218		22,313	22,531	656
Glendale Heights	3,450	5.26	218	1,687	7,326	9,231	268
Hanover Park	4,251	2.42	218	2,078	3,371	5,667	165
Hinsdale	537		218	263		481	14
Hoffman Estates	3,581		218	1,751		1,969	57
Itasca	3,187	2.60	218	1,558	3,621	5,397	156
Lisle	4,303		218	2,104		2,322	67
Lombard	6,318		218	3,089		3,307	96
MWRDGC	16,251	42.00	218	7,945	58,498	66,661	1,941
Naperville	12,882		218	6,298		6,516	189
Northlake	1,728		218	845		1,063	31
Oakbrook Terrace	923		218	451		669	19
Roselle	3,385	3.40	218	1,655	4,736	6,609	192
Salt Creek SD		3.30	218		4,596	4,814	140
Schaumburg	10,532		218	5,149		5,367	155
Villa Park	3,039		218	1,486		1,704	49
Warrenville	3,571		218	1,746		1,964	57
West Chicago	8,199	7.64	218	4,008	10,641	14,867	432
Westmont	2,465		218	1,205		1,423	41
Wheaton	7,276		218	3,557		3,775	109
Wheaton SD		8.90	218		12,396	12,614	367
Winfield	1,645		218	804		1,022	29
Wood Dale	2,095	3.10	218	1,024	4,318	5,560	162
Woodridge	3,426		218	1,675		1,893	55
Subtotals	192,358	156.91	$8,066	$94,045	$218,546	$320,657	$9,320
Potential Agency members							
Aurora	1,031		$218	$504		$722	$21
Barrington	103		218	50		268	7
Batavia	9		218	4		222	6
Berkeley	896		218	438		656	19
Broadview	822		218	402		620	18
Brookfield	1,626		218	795		1,013	29
Darien	292		218	143		361	10
Deer Park	1		218	0		218	6
Elk Grove Village	3,192		218	1,561		1,779	52
Franklin Park	16		218	8		226	6
Hillside	1,363		218	666		884	25
Inverness	2,836		218	1,387		1,605	47
Maywood	35		218	17		235	6
Melrose Park	1,016		218	497		715	21
Oak Brook	5,319		218	2,600		2,818	81
Palatine	6,058		218	2,962		3,180	92
Rolling Meadows	3,004		218	1,469		1,687	49
St Charles	168		218	82		300	8
South Barrington	1		218	0		218	6
Stone Park	204		218	100		318	9
Streamwood	486		218	238		456	13
Wayne	179		218	88		306	9
Westchester	1,993		218	974		1,192	34
Western Springs	486		218	238		456	13
Subtotals	31,136	0	$5,232	$15,223	$0	$20,455	$587
Grand Totals	223,494	156.91	$13,298	$109,268	$218,546	$341,112	$9,907
Proposed Project Funding							
Assessments							
Local matches							
Total Project Funding							
Recommended rates							
Dues (per MGD)					$1,392.81		
Dues (per acre)				$0.4889			
Dues (fixed component)			$218				
Annual percent increase			3%				
Add staff in FY 15-16							
New staffing (per MGD)							
New staffing (per acre)							
New projects (per MGD)							

DuPage River Salt Creek Workgroup												**TABLE 3**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
			PROPOSED FY 15-16 DUES (EFF 3/1/15)									O&M Costs
		Total										FY 15-16
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount	Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of	$133.90
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase	per MGD
Current Agency members											
Addison	6,053	8.50	$225	$3,048	$12,194	$3,571	$19,038	$48,754	$67,792	$52,776	$415,425
Arlington Heights	895		225	451		106	782		782	126	
Bartlett	3,765	3.68	225	1,896	5,279	1,681	9,081	21,108	30,189	23,004	179,854
Bensenville	1,575	4.70	225	793	6,743	1,765	9,526	26,958	36,484	28,950	229,705
Bloomingdale	4,413	3.45	225	2,222	4,949	1,680	9,076	19,788	28,864	21,683	168,614
Bolingbrook	130	5.04	225	65	7,230	1,709	9,229	28,908	38,137	30,835	246,322
Carol Stream	5,908	5.40	225	2,975	7,747	2,512	13,459	30,973	44,432	33,805	263,917
Clarendon Hills	446		225	225		53	503		503	67	
Downers Grove	9,162		225	4,614		1,081	5,920		5,920	1,223	
Downers Grove SD		11.00	225		15,780	3,697	19,702	63,094	82,796	67,257	537,609
DuPage County	46,189	12.50	225	23,261	17,932	9,651	51,069	71,697	122,766	82,556	610,919
Elmhurst	6,504	8.00	225	3,275	11,477	3,456	18,433	45,886	64,319	49,779	390,988
Glen Ellyn	4,274		225	2,152		504	2,881		2,881	573	
Glenbard WW Authority		16.02	225		22,982	5,384	28,591	91,887	120,478	97,947	782,953
Glendale Heights	3,450	5.26	225	1,737	7,546	2,175	11,683	30,170	41,853	32,622	257,075
Hanover Park	4,251	2.42	225	2,141	3,472	1,315	7,153	13,881	21,034	15,367	118,274
Hinsdale	537		225	270		63	558		558	77	
Hoffman Estates	3,581		225	1,803		423	2,451		2,451	482	
Itasca	3,187	2.60	225	1,605	3,730	1,250	6,810	14,913	21,723	16,326	127,071
Lisle	4,303		225	2,167		508	2,900		2,900	578	
Lombard	6,318		225	3,182		746	4,153		4,153	846	
MWRDGC	16,251	42.00	225	8,184	60,253	16,033	84,695	240,903	325,598	258,937	2,052,687
Naperville	12,882		225	6,487		1,520	8,232		8,232	1,716	
Northlake	1,728		225	870		204	1,299		1,299	236	
Oakbrook Terrace	923		225	465		109	799		799	130	
Roselle	3,385	3.40	225	1,705	4,878	1,542	8,350	19,502	27,852	21,243	166,170
Salt Creek SD		3.30	225		4,734	1,109	6,068	18,928	24,996	20,182	161,283
Schaumburg	10,532		225	5,304		1,243	6,772		6,772	1,405	
Villa Park	3,039		225	1,530		359	2,114		2,114	410	
Warrenville	3,571		225	1,798		421	2,444		2,444	480	
West Chicago	8,199	7.64	225	4,129	10,960	3,535	18,849	43,821	62,670	47,803	373,394
Westmont	2,465		225	1,241		291	1,757		1,757	334	
Wheaton	7,276		225	3,664		859	4,748		4,748	973	
Wheaton SD		8.90	225		12,768	2,991	15,984	51,048	67,032	54,418	434,974
Winfield	1,645		225	828		194	1,247		1,247	225	
Wood Dale	2,095	3.10	225	1,055	4,447	1,289	7,016	17,781	24,797	19,237	151,508
Woodridge	3,426		225	1,725		404	2,354		2,354	461	
Subtotals	192,358	156.91	$8,325	$96,867	$225,101	$75,433	$405,726	$900,000	$1,305,726	$985,069	$7,668,741
Potential Agency members											
Aurora	1,031		$225	$519		122	$866		$866	$144	
Barrington	103		225	52		12	289		289	21	
Batavia	9		225	5		1	231		231	9	
Berkeley	896		225	451		106	782		782	126	
Broadview	822		225	414		97	736		736	116	
Brookfield	1,626		225	819		192	1,236		1,236	223	
Darien	292		225	147		34	406		406	45	
Deer Park	1		225	1		0	226		226	8	
Elk Grove Village	3,192		225	1,607		377	2,209		2,209	430	
Franklin Park	16		225	8		2	235		235	9	
Hillside	1,363		225	686		161	1,072		1,072	188	
Inverness	2,836		225	1,428		335	1,988		1,988	383	
Maywood	35		225	18		4	247		247	12	
Melrose Park	1,016		225	512		120	857		857	142	
Oak Brook	5,319		225	2,679		628	3,532		3,532	714	
Palatine	6,058		225	3,051		715	3,991		3,991	811	
Rolling Meadows	3,004		225	1,513		354	2,092		2,092	405	
St Charles	168		225	85		20	330		330	30	
South Barrington	1		225	1		0	226		226	8	
Stone Park	204		225	103		24	352		352	34	
Streamwood	486		225	245		57	527		527	71	
Wayne	179		225	90		21	336		336	30	
Westchester	1,993		225	1,004		235	1,464		1,464	272	
Western Springs	486		225	245		57	527		527	71	
Subtotals	31,136	0	$5,400	$15,683	$0	$3,674	$24,757	$0	$24,757	$4,302	$0
Grand Totals	223,494	156.91	$13,725	$112,550	$225,101	$79,107	$430,483	$900,000	$1,330,483	$989,371	$7,668,741
Proposed Project Funding											
Assessments								**$900,000**			
Local matches								**$600,000**			
Total Project Funding								**$1,500,000**			20%
Recommended rates											
Dues (per MGD)					$1,434.59						
Dues (per acre)				$0.5036							
Dues (fixed component)			$225								
Annual percent increase			3%								
Add staff in FY 15-16						24%					
New staffing (per MGD)						$336.08					
New staffing (per acre)						$0.1180					
New projects (per MGD)								$5,735.78			

DuPage River Salt Creek Workgroup												**TABLE 4**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
			PROPOSED FY 16-17 DUES (EFF 3/1/16)									O&M Costs
		Total										FY 16-17
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount		Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of		$137.92
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase		per MGD
Current Agency members												
Addison	6,053	8.50	$232	$3,140	$12,560	$3,678	$19,610	$50,217	$69,827	$2,035		$427,897
Arlington Heights	895		232	464		109	805		805	23		
Bartlett	3,765	3.68	232	1,953	5,438	1,731	9,354	21,741	31,095	906		185,254
Bensenville	1,575	4.70	232	817	6,945	1,818	9,812	27,767	37,579	1,095		236,602
Bloomingdale	4,413	3.45	232	2,289	5,098	1,730	9,349	20,382	29,731	867		173,676
Bolingbrook	130	5.04	232	67	7,447	1,760	9,506	29,776	39,282	1,145		253,718
Carol Stream	5,908	5.40	232	3,064	7,979	2,587	13,862	31,902	45,764	1,332		271,840
Clarendon Hills	446		232	231		54	517		517	14		
Downers Grove	9,162		232	4,752		1,113	6,097		6,097	177		
Downers Grove SD		11.00	232		16,254	3,808	20,294	64,986	85,280	2,484		553,749
DuPage County	46,189	12.50	232	23,958	18,470	9,939	52,599	73,848	126,447	3,681		629,260
Elmhurst	6,504	8.00	232	3,374	11,821	3,560	18,987	47,263	66,250	1,931		402,726
Glen Ellyn	4,274		232	2,217		519	2,968		2,968	87		
Glenbard WW Authority		16.02	232		23,672	5,545	29,449	94,644	124,093	3,615		806,460
Glendale Heights	3,450	5.26	232	1,790	7,772	2,240	12,034	31,075	43,109	1,256		264,793
Hanover Park	4,251	2.42	232	2,205	3,576	1,354	7,367	14,297	21,664	630		121,825
Hinsdale	537		232	279		65	576		576	18		
Hoffman Estates	3,581		232	1,857		435	2,524		2,524	73		
Itasca	3,187	2.60	232	1,653	3,842	1,287	7,014	15,360	22,374	651		130,886
Lisle	4,303		232	2,232		523	2,987		2,987	87		
Lombard	6,318		232	3,277		768	4,277		4,277	124		
MWRDGC	16,251	42.00	232	8,429	62,060	16,513	87,234	248,130	335,364	9,766		2,114,314
Naperville	12,882		232	6,682		1,565	8,479		8,479	247		
Northlake	1,728		232	896		210	1,338		1,338	39		
Oakbrook Terrace	923		232	479		112	823		823	24		
Roselle	3,385	3.40	232	1,756	5,024	1,588	8,600	20,087	28,687	835		171,159
Salt Creek SD		3.30	232		4,876	1,142	6,250	19,496	25,746	750		166,125
Schaumburg	10,532		232	5,463		1,280	6,975		6,975	203		
Villa Park	3,039		232	1,576		369	2,177		2,177	63		
Warrenville	3,571		232	1,852		434	2,518		2,518	74		
West Chicago	8,199	7.64	232	4,253	11,289	3,641	19,415	45,136	64,551	1,881		384,604
Westmont	2,465		232	1,279		299	1,810		1,810	53		
Wheaton	7,276		232	3,774		884	4,890		4,890	142		
Wheaton SD		8.90	232		13,151	3,081	16,464	52,580	69,044	2,012		448,033
Winfield	1,645		232	853		200	1,285		1,285	38		
Wood Dale	2,095	3.10	232	1,087	4,581	1,328	7,228	18,314	25,542	745		156,056
Woodridge	3,426		232	1,777		416	2,425		2,425	71		
Subtotals	192,358	156.91	$8,584	$99,775	$231,855	$77,685	$417,899	$927,001	$1,344,900	$39,174		$7,898,975
Potential Agency members												
Aurora	1,031		$232	$535		125	$892		$892	$26		
Barrington	103		232	53		13	298		298	9		
Batavia	9		232	5		1	238		238	7		
Berkeley	896		232	465		109	806		806	24		
Broadview	822		232	426		100	758		758	22		
Brookfield	1,626		232	843		198	1,273		1,273	37		
Darien	292		232	151		35	418		418	12		
Deer Park	1		232	1		0	233		233	7		
Elk Grove Village	3,192		232	1,656		388	2,276		2,276	67		
Franklin Park	16		232	8		2	242		242	7		
Hillside	1,363		232	707		166	1,105		1,105	33		
Inverness	2,836		232	1,471		345	2,048		2,048	60		
Maywood	35		232	18		4	254		254	7		
Melrose Park	1,016		232	527		123	882		882	25		
Oak Brook	5,319		232	2,759		646	3,637		3,637	105		
Palatine	6,058		232	3,142		736	4,110		4,110	119		
Rolling Meadows	3,004		232	1,558		365	2,155		2,155	63		
St Charles	168		232	87		20	339		339	9		
South Barrington	1		232	1		0	233		233	7		
Stone Park	204		232	106		25	363		363	11		
Streamwood	486		232	252		59	543		543	16		
Wayne	179		232	93		22	347		347	11		
Westchester	1,993		232	1,034		242	1,508		1,508	44		
Western Springs	486		232	252		59	543		543	16		
Subtotals	31,136	0	$5,568	$16,150	$0	$3,783	$25,501	$0	$25,501	$744		$0
Grand Totals	223,494	156.91	$14,152	$115,925	$231,855	$81,468	$443,400	$927,001	$1,370,401	$39,918		$7,898,975
Proposed Project Funding												
Assessments								**$927,001**				
Local matches								**$617,999**				
Total Project Funding								**$1,545,000**				20%
Recommended rates												
Dues (per MGD)					$1,477.63							
Dues (per acre)				$0.5187								
Dues (fixed component)			$232									
Annual percent increase			3%									
Add staff in FY 15-16												
New staffing (per MGD)						$346.16						
New staffing (per acre)						$0.1215						
New projects (per MGD)								$5,907.85				

DuPage River Salt Creek Workgroup												**TABLE 5**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
			PROPOSED FY 17-18 DUES (EFF 3/1/17)									O&M Costs
		Total										FY 17-18
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount		Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of		$142.06
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase		per MGD
Current Agency members												
Addison	6,053	8.50	$239	$3,234	$12,937	$3,788	$20,198	$82,152	$102,350	$32,523		$440,741
Arlington Heights	895		239	478		112	829		829	24		
Bartlett	3,765	3.68	239	2,012	5,601	1,783	9,635	35,567	45,202	14,107		190,815
Bensenville	1,575	4.70	239	842	7,153	1,873	10,107	45,425	55,532	17,953		243,704
Bloomingdale	4,413	3.45	239	2,358	5,251	1,782	9,630	33,344	42,974	13,243		178,889
Bolingbrook	130	5.04	239	69	7,671	1,813	9,792	48,711	58,503	19,221		261,334
Carol Stream	5,908	5.40	239	3,157	8,219	2,664	14,279	52,191	66,470	20,706		280,000
Clarendon Hills	446		239	238		56	533		533	16		
Downers Grove	9,162		239	4,895		1,146	6,280		6,280	183		
Downers Grove SD		11.00	239		16,742	3,922	20,903	106,315	127,218	41,938		570,371
DuPage County	46,189	12.50	239	24,679	19,025	10,235	54,178	120,812	174,990	48,543		648,149
Elmhurst	6,504	8.00	239	3,475	12,176	3,666	19,556	77,320	96,876	30,626		414,815
Glen Ellyn	4,274		239	2,284		535	3,058		3,058	90		
Glenbard WW Authority		16.02	239		24,382	5,712	30,333	154,833	185,166	61,073		830,667
Glendale Heights	3,450	5.26	239	1,843	8,006	2,307	12,395	50,838	63,233	20,124		272,741
Hanover Park	4,251	2.42	239	2,271	3,683	1,395	7,588	23,389	30,977	9,313		125,482
Hinsdale	537		239	287		67	593		593	17		
Hoffman Estates	3,581		239	1,913		448	2,600		2,600	76		
Itasca	3,187	2.60	239	1,703	3,957	1,326	7,225	25,129	32,354	9,980		134,815
Lisle	4,303		239	2,299		538	3,076		3,076	89		
Lombard	6,318		239	3,376		790	4,405		4,405	128		
MWRDGC	16,251	42.00	239	8,683	63,922	17,008	89,852	405,929	495,781	160,417		2,177,780
Naperville	12,882		239	6,883		1,612	8,734		8,734	255		
Northlake	1,728		239	923		216	1,378		1,378	40		
Oakbrook Terrace	923		239	493		115	847		847	24		
Roselle	3,385	3.40	239	1,809	5,175	1,636	8,859	32,861	41,720	13,033		176,296
Salt Creek SD		3.30	239		5,022	1,177	6,438	31,894	38,332	12,586		171,111
Schaumburg	10,532		239	5,627		1,318	7,184		7,184	209		
Villa Park	3,039		239	1,624		380	2,243		2,243	66		
Warrenville	3,571		239	1,908		447	2,594		2,594	76		
West Chicago	8,199	7.64	239	4,381	11,628	3,750	19,998	73,840	93,838	29,287		396,149
Westmont	2,465		239	1,317		308	1,864		1,864	54		
Wheaton	7,276		239	3,888		910	5,037		5,037	147		
Wheaton SD		8.90	239		13,545	3,173	16,957	86,018	102,975	33,931		461,482
Winfield	1,645		239	879		206	1,324		1,324	39		
Wood Dale	2,095	3.10	239	1,119	4,718	1,367	7,443	29,961	37,404	11,862		160,741
Woodridge	3,426		239	1,831		429	2,499		2,499	74		
Subtotals	192,358	156.91	$8,843	$102,778	$238,813	$80,010	$430,444	$1,516,529	$1,946,973	$602,073		$8,136,082
Potential Agency members												
Aurora	1,031		$239	$551		129	$919		$919	$27		
Barrington	103		239	55		13	307		307	9		
Batavia	9		239	5		1	245		245	7		
Berkeley	896		239	479		112	830		830	24		
Broadview	822		239	439		103	781		781	23		
Brookfield	1,626		239	869		203	1,311		1,311	38		
Darien	292		239	156		37	432		432	14		
Deer Park	1		239	1		0	240		240	7		
Elk Grove Village	3,192		239	1,705		399	2,343		2,343	67		
Franklin Park	16		239	9		2	250		250	8		
Hillside	1,363		239	728		171	1,138		1,138	33		
Inverness	2,836		239	1,515		355	2,109		2,109	61		
Maywood	35		239	19		4	262		262	8		
Melrose Park	1,016		239	543		127	909		909	27		
Oak Brook	5,319		239	2,842		665	3,746		3,746	109		
Palatine	6,058		239	3,237		758	4,234		4,234	124		
Rolling Meadows	3,004		239	1,605		376	2,220		2,220	65		
St Charles	168		239	90		21	350		350	11		
South Barrington	1		239	1		0	240		240	7		
Stone Park	204		239	109		26	374		374	11		
Streamwood	486		239	260		61	560		560	17		
Wayne	179		239	96		22	357		357	10		
Westchester	1,993		239	1,065		249	1,553		1,553	45		
Western Springs	486		239	260		61	560		560	17		
Subtotals	31,136	0	$5,736	$16,639	$0	$3,895	$26,270	$0	$26,270	$769		$0
Grand Totals	223,494	156.91	$14,579	$119,417	$238,813	$83,905	$456,714	$1,516,529	$1,973,243	$602,842		$8,136,082
Proposed Project Funding												
Assessments								**$1,516,529**				
Local matches								**$1,011,021**				
Total Project Funding								**$2,527,550**				31%
Recommended rates												
Dues (per MGD)					$1,521.96							
Dues (per acre)				$0.5343								
Dues (fixed component)			$239									
Annual percent increase			3%									
Add staff in FY 15-16												
New staffing (per MGD)						$356.54						
New staffing (per acre)						$0.1251						
New projects (per MGD)								$9,664.97				

DuPage River Salt Creek Workgroup												**TABLE 6**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
				PROPOSED FY 18-19 DUES (EFF 3/1/18)								O&M Costs
		Total										FY 18-19
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount	Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of	$146.32
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase	per MGD
Current Agency members											
Addison	6,053	8.50	$246	$3,331	$13,325	$3,902	$20,804	$84,617	$105,421	$3,071	$453,958
Arlington Heights	895		246	493		115	854		854	25	
Bartlett	3,765	3.68	246	2,072	5,769	1,837	9,924	36,634	46,558	1,356	196,537
Bensenville	1,575	4.70	246	867	7,368	1,929	10,410	46,788	57,198	1,666	251,012
Bloomingdale	4,413	3.45	246	2,428	5,408	1,836	9,918	34,344	44,262	1,288	184,253
Bolingbrook	130	5.04	246	72	7,901	1,868	10,087	50,173	60,260	1,757	269,170
Carol Stream	5,908	5.40	246	3,251	8,465	2,745	14,707	53,757	68,464	1,994	288,397
Clarendon Hills	446		246	245		57	548		548	15	
Downers Grove	9,162		246	5,042		1,181	6,469		6,469	189	
Downers Grove SD		11.00	246		17,244	4,040	21,530	109,504	131,034	3,816	587,475
DuPage County	46,189	12.50	246	25,418	19,595	10,544	55,803	124,437	180,240	5,250	667,585
Elmhurst	6,504	8.00	246	3,579	12,541	3,776	20,142	79,639	99,781	2,905	427,254
Glen Ellyn	4,274		246	2,352		551	3,149		3,149	91	
Glenbard WW Authority		16.02	246		25,113	5,883	31,242	159,478	190,720	5,554	855,577
Glendale Heights	3,450	5.26	246	1,899	8,246	2,376	12,767	52,363	65,130	1,897	280,920
Hanover Park	4,251	2.42	246	2,339	3,794	1,437	7,816	24,091	31,907	930	129,244
Hinsdale	537		246	296		69	611		611	18	
Hoffman Estates	3,581		246	1,971		462	2,679		2,679	79	
Itasca	3,187	2.60	246	1,754	4,076	1,366	7,442	25,883	33,325	971	138,858
Lisle	4,303		246	2,368		555	3,169		3,169	93	
Lombard	6,318		246	3,477		814	4,537		4,537	132	
MWRDGC	16,251	42.00	246	8,943	65,840	17,519	92,548	418,107	510,655	14,874	2,243,086
Naperville	12,882		246	7,089		1,660	8,995		8,995	261	
Northlake	1,728		246	951		223	1,420		1,420	42	
Oakbrook Terrace	923		246	508		119	873		873	26	
Roselle	3,385	3.40	246	1,863	5,330	1,685	9,124	33,847	42,971	1,251	181,583
Salt Creek SD		3.30	246		5,173	1,212	6,631	32,851	39,482	1,150	176,242
Schaumburg	10,532		246	5,796		1,358	7,400		7,400	216	
Villa Park	3,039		246	1,672		392	2,310		2,310	67	
Warrenville	3,571		246	1,965		460	2,671		2,671	77	
West Chicago	8,199	7.64	246	4,512	11,977	3,863	20,598	76,056	96,654	2,816	408,028
Westmont	2,465		246	1,356		318	1,920		1,920	56	
Wheaton	7,276		246	4,004		938	5,188		5,188	151	
Wheaton SD		8.90	246		13,952	3,268	17,466	88,599	106,065	3,090	475,321
Winfield	1,645		246	905		212	1,363		1,363	39	
Wood Dale	2,095	3.10	246	1,153	4,860	1,408	7,667	30,860	38,527	1,123	165,561
Woodridge	3,426		246	1,885		442	2,573		2,573	74	
Subtotals	192,358	156.91	$9,102	$105,856	$245,977	$82,420	$443,355	$1,562,028	$2,005,383	$58,410	$8,380,061
Potential Agency members											
Aurora	1,031		$246	$567		133	$946		$946	$27	
Barrington	103		246	57		13	316		316	9	
Batavia	9		246	5		1	252		252	7	
Berkeley	896		246	493		115	854		854	24	
Broadview	822		246	452		106	804		804	23	
Brookfield	1,626		246	895		210	1,351		1,351	40	
Darien	292		246	161		38	445		445	13	
Deer Park	1		246	1		0	247		247	7	
Elk Grove Village	3,192		246	1,757		411	2,414		2,414	71	
Franklin Park	16		246	9		2	257		257	7	
Hillside	1,363		246	750		176	1,172		1,172	34	
Inverness	2,836		246	1,561		366	2,173		2,173	64	
Maywood	35		246	19		5	270		270	8	
Melrose Park	1,016		246	559		131	936		936	27	
Oak Brook	5,319		246	2,927		686	3,859		3,859	113	
Palatine	6,058		246	3,334		781	4,361		4,361	127	
Rolling Meadows	3,004		246	1,653		387	2,286		2,286	66	
St Charles	168		246	92		22	360		360	10	
South Barrington	1		246	1		0	247		247	7	
Stone Park	204		246	112		26	384		384	10	
Streamwood	486		246	267		63	576		576	16	
Wayne	179		246	99		23	368		368	11	
Westchester	1,993		246	1,097		257	1,600		1,600	47	
Western Springs	486		246	267		63	576		576	16	
Subtotals	31,136	0	$5,904	$17,135	$0	$4,015	$27,054	$0	$27,054	$784	$0
Grand Totals	223,494	156.91	$15,006	$122,991	$245,977	$86,435	$470,409	$1,562,028	$2,032,437	$59,194	$8,380,061
Proposed Project Funding											
Assessments								**$1,562,028**			
Local matches								**$1,041,355**			
Total Project Funding								**$2,603,383**			31%
Recommended rates											
Dues (per MGD)					$1,567.62						
Dues (per acre)				$0.5503							
Dues (fixed component)			$246								
Annual percent increase			3%								
Add staff in FY 15-16											
New staffing (per MGD)						$367.24					
New staffing (per acre)						$0.1289					
New projects (per MGD)								$9,954.92			

DuPage River Salt Creek Workgroup												**TABLE 7**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
				PROPOSED FY 19-20 DUES (EFF 3/1/19)								O&M Costs
		Total										FY 19-20
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount	Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of	$150.71
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase	per MGD
Current Agency members											
Addison	6,053	8.50	$253	$3,431	$13,725	$4,019	$21,428	$140,273	$161,701	$56,280	$467,578
Arlington Heights	895		253	507		119	879		879	25	
Bartlett	3,765	3.68	253	2,134	5,942	1,892	10,221	60,730	70,951	24,393	202,434
Bensenville	1,575	4.70	253	893	7,589	1,987	10,722	77,563	88,285	31,087	258,543
Bloomingdale	4,413	3.45	253	2,501	5,571	1,891	10,216	56,934	67,150	22,888	189,782
Bolingbrook	130	5.04	253	74	8,138	1,924	10,389	83,174	93,563	33,303	277,246
Carol Stream	5,908	5.40	253	3,349	8,719	2,827	15,148	89,115	104,263	35,799	297,049
Clarendon Hills	446		253	253		59	565		565	17	
Downers Grove	9,162		253	5,193		1,217	6,663		6,663	194	
Downers Grove SD		11.00	253		17,761	4,161	22,175	181,530	203,705	72,671	605,101
DuPage County	46,189	12.50	253	26,180	20,183	10,862	57,478	206,284	263,762	83,522	687,614
Elmhurst	6,504	8.00	253	3,686	12,917	3,890	20,746	132,022	152,768	52,987	440,073
Glen Ellyn	4,274		253	2,423		568	3,244		3,244	95	
Glenbard WW Authority		16.02	253		25,867	6,060	32,180	264,374	296,554	105,834	881,247
Glendale Heights	3,450	5.26	253	1,955	8,493	2,448	13,149	86,804	99,953	34,823	289,348
Hanover Park	4,251	2.42	253	2,409	3,907	1,480	8,049	39,937	47,986	16,079	133,122
Hinsdale	537		253	304		71	628		628	17	
Hoffman Estates	3,581		253	2,030		476	2,759		2,759	80	
Itasca	3,187	2.60	253	1,806	4,198	1,407	7,664	42,907	50,571	17,246	143,024
Lisle	4,303		253	2,439		571	3,263		3,263	94	
Lombard	6,318		253	3,581		839	4,673		4,673	136	
MWRDGC	16,251	42.00	253	9,211	67,815	18,045	95,324	693,115	788,439	277,784	2,310,384
Naperville	12,882		253	7,302		1,711	9,266		9,266	271	
Northlake	1,728		253	979		229	1,461		1,461	41	
Oakbrook Terrace	923		253	523		123	899		899	26	
Roselle	3,385	3.40	253	1,919	5,490	1,736	9,398	56,109	65,507	22,536	187,031
Salt Creek SD		3.30	253		5,328	1,248	6,829	54,459	61,288	21,806	181,530
Schaumburg	10,532		253	5,970		1,399	7,622		7,622	222	
Villa Park	3,039		253	1,723		404	2,380		2,380	70	
Warrenville	3,571		253	2,024		474	2,751		2,751	80	
West Chicago	8,199	7.64	253	4,647	12,336	3,979	21,215	126,081	147,296	50,642	420,270
Westmont	2,465		253	1,397		327	1,977		1,977	57	
Wheaton	7,276		253	4,124		966	5,343		5,343	155	
Wheaton SD		8.90	253		14,370	3,367	17,990	146,874	164,864	58,799	489,581
Winfield	1,645		253	932		218	1,403		1,403	40	
Wood Dale	2,095	3.10	253	1,187	5,005	1,451	7,896	51,159	59,055	20,528	170,528
Woodridge	3,426		253	1,942		455	2,650		2,650	77	
Subtotals	192,358	156.91	$9,361	$109,028	$253,354	$84,900	$456,643	$2,589,444	$3,046,087	$1,040,704	$8,631,486
Potential Agency members											
Aurora	1,031		$253	$584		137	$974		$974	$28	
Barrington	103		253	58		14	325		325	9	
Batavia	9		253	5		1	259		259	7	
Berkeley	896		253	508		119	880		880	26	
Broadview	822		253	466		109	828		828	24	
Brookfield	1,626		253	922		216	1,391		1,391	40	
Darien	292		253	166		39	458		458	13	
Deer Park	1		253	1		0	254		254	7	
Elk Grove Village	3,192		253	1,809		424	2,486		2,486	72	
Franklin Park	16		253	9		2	264		264	7	
Hillside	1,363		253	773		181	1,207		1,207	35	
Inverness	2,836		253	1,607		377	2,237		2,237	64	
Maywood	35		253	20		5	278		278	8	
Melrose Park	1,016		253	576		135	964		964	28	
Oak Brook	5,319		253	3,015		706	3,974		3,974	115	
Palatine	6,058		253	3,434		805	4,492		4,492	131	
Rolling Meadows	3,004		253	1,703		399	2,355		2,355	69	
St Charles	168		253	95		22	370		370	10	
South Barrington	1		253	1		0	254		254	7	
Stone Park	204		253	116		27	396		396	12	
Streamwood	486		253	275		65	593		593	17	
Wayne	179		253	101		24	378		378	10	
Westchester	1,993		253	1,130		265	1,648		1,648	48	
Western Springs	486		253	275		65	593		593	17	
Subtotals	31,136	0	$6,072	$17,649	$0	$4,137	$27,858	$0	$27,858	$804	$0
Grand Totals	223,494	156.91	$15,433	$126,677	$253,354	$89,037	$484,501	$2,589,444	$3,073,945	$1,041,508	$8,631,486
Proposed Project Funding											
Assessments								**$2,589,444**			
Local matches								**$1,726,296**			
Total Project Funding								**$4,315,740**			50%
Recommended rates											
Dues (per MGD)					$1,614.65						
Dues (per acre)				$0.5668							
Dues (fixed component)			$253								
Annual percent increase			3%								
Add staff in FY 15-16											
New staffing (per MGD)						$378.26					
New staffing (per acre)						$0.1328					
New projects (per MGD)								$16,502.75			

DuPage River Salt Creek Workgroup												**TABLE 8**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
				PROPOSED FY 20-21 DUES (EFF 3/1/20)								O&M Costs
		Total										FY 20-21
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount	Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of	$155.23
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase	per MGD
Current Agency members											
Addison	6,053	8.50	$261	$3,534	$14,136	$4,140	$22,071	$144,482	$166,553	$4,852	$481,601
Arlington Heights	895		261	523		122	906		906	27	
Bartlett	3,765	3.68	261	2,198	6,120	1,949	10,528	62,552	73,080	2,129	208,505
Bensenville	1,575	4.70	261	919	7,817	2,047	11,044	79,890	90,934	2,649	266,297
Bloomingdale	4,413	3.45	261	2,576	5,738	1,948	10,523	58,643	69,166	2,016	195,473
Bolingbrook	130	5.04	261	76	8,382	1,981	10,700	85,669	96,369	2,806	285,561
Carol Stream	5,908	5.40	261	3,449	8,981	2,912	15,603	91,788	107,391	3,128	305,958
Clarendon Hills	446		261	260		61	582		582	17	
Downers Grove	9,162		261	5,349		1,253	6,863		6,863	200	
Downers Grove SD		11.00	261		18,294	4,286	22,841	186,976	209,817	6,112	623,248
DuPage County	46,189	12.50	261	26,965	20,789	11,189	59,204	212,473	271,677	7,915	708,237
Elmhurst	6,504	8.00	261	3,797	13,305	4,007	21,370	135,983	157,353	4,585	453,272
Glen Ellyn	4,274		261	2,495		585	3,341		3,341	97	
Glenbard WW Authority		16.02	261		26,643	6,242	33,146	272,305	305,451	8,897	907,676
Glendale Heights	3,450	5.26	261	2,014	8,748	2,521	13,544	89,409	102,953	3,000	298,026
Hanover Park	4,251	2.42	261	2,482	4,025	1,524	8,292	41,135	49,427	1,441	137,115
Hinsdale	537		261	314		73	648		648	20	
Hoffman Estates	3,581		261	2,091		490	2,842		2,842	83	
Itasca	3,187	2.60	261	1,861	4,324	1,449	7,895	44,194	52,089	1,518	147,313
Lisle	4,303		261	2,512		589	3,362		3,362	99	
Lombard	6,318		261	3,688		864	4,813		4,813	140	
MWRDGC	16,251	42.00	261	9,487	69,850	18,587	98,185	713,909	812,094	23,655	2,379,676
Naperville	12,882		261	7,521		1,762	9,544		9,544	278	
Northlake	1,728		261	1,009		236	1,506		1,506	45	
Oakbrook Terrace	923		261	539		126	926		926	27	
Roselle	3,385	3.40	261	1,976	5,655	1,788	9,680	57,793	67,473	1,966	192,640
Salt Creek SD		3.30	261		5,488	1,286	7,035	56,093	63,128	1,840	186,975
Schaumburg	10,532		261	6,149		1,441	7,851		7,851	229	
Villa Park	3,039		261	1,774		416	2,451		2,451	71	
Warrenville	3,571		261	2,085		489	2,835		2,835	84	
West Chicago	8,199	7.64	261	4,787	12,706	4,098	21,852	129,863	151,715	4,419	432,874
Westmont	2,465		261	1,439		337	2,037		2,037	60	
Wheaton	7,276		261	4,248		995	5,504		5,504	161	
Wheaton SD		8.90	261		14,802	3,468	18,531	151,281	169,812	4,948	504,265
Winfield	1,645		261	960		225	1,446		1,446	43	
Wood Dale	2,095	3.10	261	1,223	5,156	1,494	8,134	52,693	60,827	1,772	175,643
Woodridge	3,426		261	2,000		469	2,730		2,730	80	
Subtotals	192,358	156.91	$9,657	$112,300	$260,959	$87,449	$470,365	$2,667,131	$3,137,496	$91,409	$8,890,356
Potential Agency members											
Aurora	1,031		$261	$602		141	$1,004		$1,004	$30	
Barrington	103		261	60		14	335		335	10	
Batavia	9		261	5		1	267		267	8	
Berkeley	896		261	523		123	907		907	27	
Broadview	822		261	480		112	853		853	25	
Brookfield	1,626		261	949		222	1,432		1,432	41	
Darien	292		261	170		40	471		471	13	
Deer Park	1		261	1		0	262		262	8	
Elk Grove Village	3,192		261	1,863		437	2,561		2,561	75	
Franklin Park	16		261	9		2	272		272	8	
Hillside	1,363		261	796		186	1,243		1,243	36	
Inverness	2,836		261	1,656		388	2,305		2,305	68	
Maywood	35		261	20		5	286		286	8	
Melrose Park	1,016		261	593		139	993		993	29	
Oak Brook	5,319		261	3,105		728	4,094		4,094	120	
Palatine	6,058		261	3,537		829	4,627		4,627	135	
Rolling Meadows	3,004		261	1,754		411	2,426		2,426	71	
St Charles	168		261	98		23	382		382	12	
South Barrington	1		261	1		0	262		262	8	
Stone Park	204		261	119		28	408		408	12	
Streamwood	486		261	284		66	611		611	18	
Wayne	179		261	105		24	390		390	12	
Westchester	1,993		261	1,164		273	1,698		1,698	50	
Western Springs	486		261	284		66	611		611	18	
Subtotals	31,136	0	$6,264	$18,178	$0	$4,258	$28,700	$0	$28,700	$842	$0
Grand Totals	223,494	156.91	$15,921	$130,478	$260,959	$91,707	$499,065	$2,667,131	$3,166,196	$92,251	$8,890,356
Proposed Project Funding											
Assessments								**$2,667,131**			
Local matches								**$1,778,087**			
Total Project Funding								**$4,445,218**			50%
Recommended rates											
Dues (per MGD)					$1,663.09						
Dues (per acre)				$0.5838							
Dues (fixed component)			$261								
Annual percent increase			3%								
Add staff in FY 15-16											
New staffing (per MGD)						$389.61					
New staffing (per acre)						$0.1368					
New projects (per MGD)								$16,997.83			

DuPage River Salt Creek Workgroup												**TABLE 9**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
			PROPOSED FY 21-22 DUES (EFF 3/1/21)									O&M Costs
		Total										FY 21-22
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount		Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of		$159.89
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase		per MGD
Current Agency members												
Addison	6,053	8.50	$269	$3,640	$14,560	$4,264	$22,733	$148,816	$171,549	$4,996		$496,059
Arlington Heights	895		269	538		126	933		933	27		
Bartlett	3,765	3.68	269	2,264	6,304	2,007	10,844	64,429	75,273	2,193		214,764
Bensenville	1,575	4.70	269	947	8,051	2,108	11,375	82,286	93,661	2,727		274,291
Bloomingdale	4,413	3.45	269	2,654	5,910	2,006	10,839	60,402	71,241	2,075		201,341
Bolingbrook	130	5.04	269	78	8,633	2,041	11,021	88,239	99,260	2,891		294,134
Carol Stream	5,908	5.40	269	3,552	9,250	2,999	16,070	94,542	110,612	3,221		315,143
Clarendon Hills	446		269	268		63	600		600	18		
Downers Grove	9,162		269	5,509		1,291	7,069		7,069	206		
Downers Grove SD		11.00	269		18,843	4,414	23,526	192,585	216,111	6,294		641,958
DuPage County	46,189	12.50	269	27,773	21,412	11,524	60,978	218,847	279,825	8,148		729,498
Elmhurst	6,504	8.00	269	3,911	13,704	4,127	22,011	140,062	162,073	4,720		466,879
Glen Ellyn	4,274		269	2,570		602	3,441		3,441	100		
Glenbard WW Authority		16.02	269		27,442	6,429	34,140	280,474	314,614	9,163		934,925
Glendale Heights	3,450	5.26	269	2,074	9,010	2,597	13,950	92,091	106,041	3,088		306,973
Hanover Park	4,251	2.42	269	2,556	4,145	1,570	8,540	42,369	50,909	1,482		141,231
Hinsdale	537		269	323		76	668		668	20		
Hoffman Estates	3,581		269	2,153		505	2,927		2,927	85		
Itasca	3,187	2.60	269	1,916	4,454	1,492	8,131	45,520	53,651	1,562		151,736
Lisle	4,303		269	2,587		606	3,462		3,462	100		
Lombard	6,318		269	3,799		890	4,958		4,958	145		
MWRDGC	16,251	42.00	269	9,772	71,945	19,144	101,130	735,326	836,456	24,362		2,451,114
Naperville	12,882		269	7,746		1,815	9,830		9,830	286		
Northlake	1,728		269	1,039		243	1,551		1,551	45		
Oakbrook Terrace	923		269	555		130	954		954	28		
Roselle	3,385	3.40	269	2,035	5,824	1,841	9,969	59,526	69,495	2,022		198,423
Salt Creek SD		3.30	269		5,653	1,324	7,246	57,776	65,022	1,894		192,588
Schaumburg	10,532		269	6,333		1,484	8,086		8,086	235		
Villa Park	3,039		269	1,827		428	2,524		2,524	73		
Warrenville	3,571		269	2,147		503	2,919		2,919	84		
West Chicago	8,199	7.64	269	4,930	13,087	4,221	22,507	133,759	156,266	4,551		445,869
Westmont	2,465		269	1,482		347	2,098		2,098	61		
Wheaton	7,276		269	4,375		1,025	5,669		5,669	165		
Wheaton SD		8.90	269		15,246	3,572	19,087	155,819	174,906	5,094		519,403
Winfield	1,645		269	989		232	1,490		1,490	44		
Wood Dale	2,095	3.10	269	1,260	5,310	1,539	8,378	54,274	62,652	1,825		180,916
Woodridge	3,426		269	2,060		483	2,812		2,812	82		
Subtotals	192,358	156.91	$9,953	$115,662	$268,783	$90,068	$484,466	$2,747,142	$3,231,608	$94,112		$9,157,244
Potential Agency members												
Aurora	1,031		$269	$620		145	$1,034		$1,034	$30		
Barrington	103		269	62		15	346		346	11		
Batavia	9		269	5		1	275		275	8		
Berkeley	896		269	539		126	934		934	27		
Broadview	822		269	494		116	879		879	26		
Brookfield	1,626		269	978		229	1,476		1,476	44		
Darien	292		269	176		41	486		486	15		
Deer Park	1		269	1		0	270		270	8		
Elk Grove Village	3,192		269	1,919		450	2,638		2,638	77		
Franklin Park	16		269	10		2	281		281	9		
Hillside	1,363		269	820		192	1,281		1,281	38		
Inverness	2,836		269	1,705		400	2,374		2,374	69		
Maywood	35		269	21		5	295		295	9		
Melrose Park	1,016		269	611		143	1,023		1,023	30		
Oak Brook	5,319		269	3,198		749	4,216		4,216	122		
Palatine	6,058		269	3,643		854	4,766		4,766	139		
Rolling Meadows	3,004		269	1,806		423	2,498		2,498	72		
St Charles	168		269	101		24	394		394	12		
South Barrington	1		269	1		0	270		270	8		
Stone Park	204		269	123		29	421		421	13		
Streamwood	486		269	292		68	629		629	18		
Wayne	179		269	108		25	402		402	12		
Westchester	1,993		269	1,198		281	1,748		1,748	50		
Western Springs	486		269	292		68	629		629	18		
Subtotals	31,136	0	$6,456	$18,723	$0	$4,386	$29,565	$0	$29,565	$865		$0
Grand Totals	223,494	156.91	$16,409	$134,385	$268,783	$94,454	$514,031	$2,747,142	$3,261,173	$94,977		$9,157,244
Proposed Project Funding												
Assessments								**$2,747,142**				
Local matches								**$1,831,428**				
Total Project Funding								**$4,578,570**				50%
Recommended rates												
Dues (per MGD)					$1,712.98							
Dues (per acre)				$0.6013								
Dues (fixed component)			$269									
Annual percent increase			3%									
Add staff in FY 15-16												
New staffing (per MGD)						$401.30						
New staffing (per acre)						$0.1409						
New projects (per MGD)								$17,507.76				

DuPage River Salt Creek Workgroup												**TABLE 10**
Proposed Dues and Assessments												Estimated
February 16, 2015												Phosphorus
												Removal
			PROPOSED FY 22-23 DUES (EFF 3/1/22)									O&M Costs
		Total										FY 21-22
	Total	Tributary	Dues	Dues	Dues	New		New	Total	Amount	Costs
	Tributary	POTW	Fixed	Acreage	WTP	Staffing	Dues	Project	Dues and	of	$164.69
Agency Members	Acreage	MGD	Component	Component	Component	Component	Total	Assessment	Assessments	Increase	per MGD
Current Agency members											
Addison	6,053	8.50	$277	$3,749	$14,997	$4,392	$23,415	$153,280	$176,695	$5,146	$510,951
Arlington Heights	895		277	554		130	961		961	28	
Bartlett	3,765	3.68	277	2,332	6,493	2,067	11,169	66,361	77,530	2,257	221,212
Bensenville	1,575	4.70	277	975	8,293	2,171	11,716	84,755	96,471	2,810	282,526
Bloomingdale	4,413	3.45	277	2,733	6,087	2,066	11,163	62,214	73,377	2,136	207,386
Bolingbrook	130	5.04	277	81	8,892	2,102	11,352	90,886	102,238	2,978	302,964
Carol Stream	5,908	5.40	277	3,659	9,528	3,089	16,553	97,378	113,931	3,319	324,604
Clarendon Hills	446		277	276		65	618		618	18	
Downers Grove	9,162		277	5,674		1,329	7,280		7,280	211	
Downers Grove SD		11.00	277		19,408	4,547	24,232	198,363	222,595	6,484	661,230
DuPage County	46,189	12.50	277	28,605	22,055	11,869	62,806	225,412	288,218	8,393	751,398
Elmhurst	6,504	8.00	277	4,028	14,115	4,250	22,670	144,264	166,934	4,861	480,895
Glen Ellyn	4,274		277	2,647		620	3,544		3,544	103	
Glenbard WW Authority		16.02	277		28,265	6,622	35,164	288,888	324,052	9,438	962,992
Glendale Heights	3,450	5.26	277	2,137	9,281	2,675	14,370	94,854	109,224	3,183	316,188
Hanover Park	4,251	2.42	277	2,633	4,270	1,617	8,797	43,640	52,437	1,528	145,471
Hinsdale	537		277	333		78	688		688	20	
Hoffman Estates	3,581		277	2,218		520	3,015		3,015	88	
Itasca	3,187	2.60	277	1,974	4,587	1,537	8,375	46,886	55,261	1,610	156,291
Lisle	4,303		277	2,665		624	3,566		3,566	104	
Lombard	6,318		277	3,913		917	5,107		5,107	149	
MWRDGC	16,251	42.00	277	10,064	74,104	19,718	104,163	757,386	861,549	25,093	2,524,698
Naperville	12,882		277	7,978		1,869	10,124		10,124	294	
Northlake	1,728		277	1,070		251	1,598		1,598	47	
Oakbrook Terrace	923		277	572		134	983		983	29	
Roselle	3,385	3.40	277	2,096	5,999	1,897	10,269	61,312	71,581	2,086	204,380
Salt Creek SD		3.30	277		5,822	1,364	7,463	59,509	66,972	1,950	198,369
Schaumburg	10,532		277	6,522		1,528	8,327		8,327	241	
Villa Park	3,039		277	1,882		441	2,600		2,600	76	
Warrenville	3,571		277	2,212		518	3,007		3,007	88	
West Chicago	8,199	7.64	277	5,078	13,480	4,348	23,183	137,772	160,955	4,689	459,255
Westmont	2,465		277	1,527		358	2,162		2,162	64	
Wheaton	7,276		277	4,506		1,056	5,839		5,839	170	
Wheaton SD		8.90	277		15,703	3,679	19,659	160,494	180,153	5,247	534,995
Winfield	1,645		277	1,019		239	1,535		1,535	45	
Wood Dale	2,095	3.10	277	1,297	5,470	1,585	8,629	55,902	64,531	1,879	186,347
Woodridge	3,426		277	2,122		497	2,896		2,896	84	
Subtotals	192,358	156.91	$10,249	$119,131	$276,849	$92,769	$498,998	$2,829,556	$3,328,554	$96,946	$9,432,150
Potential Agency members											
Aurora	1,031		$277	$638		150	$1,065		$1,065	$31	
Barrington	103		277	64		15	356		356	10	
Batavia	9		277	6		1	284		284	9	
Berkeley	896		277	555		130	962		962	28	
Broadview	822		277	509		119	905		905	26	
Brookfield	1,626		277	1,007		236	1,520		1,520	44	
Darien	292		277	181		42	500		500	14	
Deer Park	1		277	1		0	278		278	8	
Elk Grove Village	3,192		277	1,977		463	2,717		2,717	79	
Franklin Park	16		277	10		2	289		289	8	
Hillside	1,363		277	844		198	1,319		1,319	38	
Inverness	2,836		277	1,756		412	2,445		2,445	71	
Maywood	35		277	22		5	304		304	9	
Melrose Park	1,016		277	629		147	1,053		1,053	30	
Oak Brook	5,319		277	3,294		772	4,343		4,343	127	
Palatine	6,058		277	3,752		879	4,908		4,908	142	
Rolling Meadows	3,004		277	1,860		436	2,573		2,573	75	
St Charles	168		277	104		24	405		405	11	
South Barrington	1		277	1		0	278		278	8	
Stone Park	204		277	126		30	433		433	12	
Streamwood	486		277	301		71	649		649	20	
Wayne	179		277	111		26	414		414	12	
Westchester	1,993		277	1,234		289	1,800		1,800	52	
Western Springs	486		277	301		71	649		649	20	
Subtotals	31,136	0	$6,648	$19,283	$0	$4,518	$30,449	$0	$30,449	$884	$0
Grand Totals	223,494	156.91	$16,897	$138,414	$276,849	$97,287	$529,447	$2,829,556	$3,359,003	$97,830	$9,432,150
Proposed Project Funding											
Assessments								**$2,829,556**			
Local matches								**$1,886,371**			
Total Project Funding								**$4,715,927**			50%
Recommended rates											
Dues (per MGD)					$1,764.37						
Dues (per acre)				$0.6193							
Dues (fixed component)			$277								
Annual percent increase			3%								
Add staff in FY 15-16											
New staffing (per MGD)						$413.34					
New staffing (per acre)						$0.1451					
New projects (per MGD)								$18,032.99			

DuPage River Salt Creek Workgroup					**TABLE 11**
Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs					
February 16, 2015					
	Baseline - No DRSCW Program		**Eight Year DRSCW Funding Program**		
		Total			Total
	O&M	Project	O&M	Project	Project
Year	Costs	Funding	Costs	Assessments	Funding
2015	$0	$0	$0	$900,000	$1,500,000
2016	0	0	0	927,001	1,545,000
2017	0	0	0	1,516,529	2,527,550
2018	8,380,061	0	0	1,562,028	2,603,383
2019	8,631,486	0	0	2,589,444	4,315,740
2020	8,890,356	0	0	2,667,131	4,445,218
2021	9,157,244	0	0	2,747,142	4,578,570
2022	9,432,150	0	0	2,829,556	4,715,927
2023	9,715,075	0	0	0	0
2024	10,006,590	0	0	0	0
2025	10,306,696	0	0	0	0
2026	10,615,966	0	10,615,966	0	0
2027	10,934,399	0	10,934,399	0	0
2028	11,262,568	0	11,262,568	0	0
2029	11,600,474	0	11,600,474	0	0
Subtotals	**$118,933,065**	$0	**$44,413,407**	**$15,738,831**	**$26,231,388**
Total Cost based on Project Assessments				**$60,152,238**	
Cost Savings based on Project Assessments				**$58,780,827**	
Total Cost based on Total Project Funding					**$70,644,795**
Cost Savings based on Total Project Funding					**$48,288,270**

		DuPage River Salt Creek Workgroup				**TABLE 12**
		Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency				
		February 16, 2015				
DRSCW Member:		**Addison**				
		Baseline - No DRSCW Program			**Eight Year DRSCW Funding Program**	
Year		O&M Costs	Project Assessments		O&M Costs	Project Assessments
2015		$0	$0		$0	$48,754
2016		0	0		0	50,217
2017		0	0		0	82,152
2018		$453,958	0		0	84,617
2019		467,578	0		0	140,273
2020		481,601	0		0	144,482
2021		496,059	0		0	148,816
2022		510,951	0		0	153,280
2023		526,277	0		0	0
2024		542,069	0		0	0
2025		558,326	0		0	0
2026		575,079	0		$575,079	0
2027		592,329	0		592,329	0
2028		610,107	0		610,107	0
2029		628,411	0		628,411	0
Subtotals		**$6,442,745**	**$0**		**$2,405,927**	**$852,591**
Total Cost						**$3,258,518**
Cost Savings						**$3,184,227**
		Annual Dues and Assessments by Year				
		Annual Dues	Project Assessments		Total Dues & Assessments	
FY 14-15		$15,016	$0		$15,016	
FY 15-16		$19,038	$48,754		$67,792	
FY 16-17		19,610	50,217		69,827	
FY 17-18		20,198	82,152		102,350	
FY 18-19		20,804	84,617		105,421	
FY 19-20		21,428	140,273		161,701	
FY 20-21		22,071	144,482		166,553	
FY 21-22		22,733	148,816		171,549	
FY 22-23		23,415	153,280		176,695	
Eight Year Totals		$169,297	$852,591		$1,021,888	

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Bartlett**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$21,108
2016	0	0	0	21,741
2017	0	0	0	35,567
2018	$196,537	0	0	36,634
2019	202,434	0	0	60,730
2020	208,505	0	0	62,552
2021	214,764	0	0	64,429
2022	221,212	0	0	66,361
2023	227,847	0	0	0
2024	234,684	0	0	0
2025	241,722	0	0	0
2026	248,976	0	$248,976	0
2027	256,444	0	256,444	0
2028	264,140	0	264,140	0
2029	272,065	0	272,065	0
Subtotals	**$2,789,329**	**$0**	**$1,041,625**	**$369,122**
Total Cost				**$1,410,747**
Cost Savings				**$1,378,583**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$7,185	$0	$7,185
FY 15-16	$9,081	$21,108	$30,189
FY 16-17	9,354	21,741	31,095
FY 17-18	9,635	35,567	45,202
FY 18-19	9,924	36,634	46,558
FY 19-20	10,221	60,730	70,951
FY 20-21	10,528	62,552	73,080
FY 21-22	10,844	64,429	75,273
FY 22-23	11,169	66,361	77,530
Eight Year Totals	$80,756	$369,122	$449,878

		DuPage River Salt Creek Workgroup				**TABLE 12**
		Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency				
		February 16, 2015				
DRSCW Member:		**Bensenville**				
		Baseline - No DRSCW Program			**Eight Year DRSCW Funding Program**	
		O&M	Project		O&M	Project
Year		Costs	Assessments		Costs	Assessments
2015		$0	$0		$0	$26,958
2016		0	0		0	27,767
2017		0	0		0	45,425
2018		$251,012	0		0	46,788
2019		258,543	0		0	77,563
2020		266,297	0		0	79,890
2021		274,291	0		0	82,286
2022		282,526	0		0	84,755
2023		291,000	0		0	0
2024		299,732	0		0	0
2025		308,721	0		0	0
2026		317,985	0		$317,985	0
2027		327,523	0		327,523	0
2028		337,353	0		337,353	0
2029		347,475	0		347,475	0
Subtotals		**$3,562,459**	**$0**		**$1,330,336**	**$471,432**
Total Cost						**$1,801,768**
Cost Savings						**$1,760,691**
		Annual Dues and Assessments by Year				
		Annual	Project		Total Dues &	
		Dues	Assessments		Assessments	
FY 14-15		$7,534	$0		$7,534	
FY 15-16		$9,526	$26,958		$36,484	
FY 16-17		9,812	27,767		37,579	
FY 17-18		10,107	45,425		55,532	
FY 18-19		10,410	46,788		57,198	
FY 19-20		10,722	77,563		88,285	
FY 20-21		11,044	79,890		90,934	
FY 21-22		11,375	82,286		93,661	
FY 22-23		11,716	84,755		96,471	
Eight Year Totals		$84,712	$471,432		$556,144	

		DuPage River Salt Creek Workgroup				**TABLE 12**
		Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency				
		February 16, 2015				
DRSCW Member:		**Bloomingdale**				
		Baseline - No DRSCW Program			**Eight Year DRSCW Funding Program**	
Year		O&M Costs	Project Assessments		O&M Costs	Project Assessments
2015		$0	$0		$0	$19,788
2016		0	0		0	20,382
2017		0	0		0	33,344
2018		$184,253	0		0	34,344
2019		189,782	0		0	56,934
2020		195,473	0		0	58,643
2021		201,341	0		0	60,402
2022		207,386	0		0	62,214
2023		213,607	0		0	0
2024		220,016	0		0	0
2025		226,615	0		0	0
2026		233,415	0		$233,415	0
2027		240,416	0		240,416	0
2028		247,632	0		247,632	0
2029		255,061	0		255,061	0
Subtotals		**$2,614,996**	**$0**		**$976,523**	**$346,051**
Total Cost						**$1,322,574**
Cost Savings						**$1,292,422**
		Annual Dues and Assessments by Year				
		Annual Dues	Project Assessments		Total Dues & Assessments	
FY 14-15		$7,181	$0		$7,181	
FY 15-16		$9,076	$19,788		$28,864	
FY 16-17		9,349	20,382		29,731	
FY 17-18		9,630	33,344		42,974	
FY 18-19		9,918	34,344		44,262	
FY 19-20		10,216	56,934		67,150	
FY 20-21		10,523	58,643		69,166	
FY 21-22		10,839	60,402		71,241	
FY 22-23		11,163	62,214		73,377	
Eight Year Totals		$80,714	$346,051		$426,765	

		DuPage River Salt Creek Workgroup				**TABLE 12**
		Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency				
		February 16, 2015				
DRSCW Member:		**Bolingbrook**				
		Baseline - No DRSCW Program			**Eight Year DRSCW Funding Program**	
		O&M	Project		O&M	Project
Year		Costs	Assessments		Costs	Assessments
2015		$0	$0		$0	$28,908
2016		0	0		0	29,776
2017		0	0		0	48,711
2018		$269,170	0		0	50,173
2019		277,246	0		0	83,174
2020		285,561	0		0	85,669
2021		294,134	0		0	88,239
2022		302,964	0		0	90,886
2023		312,051	0		0	0
2024		321,415	0		0	0
2025		331,054	0		0	0
2026		340,988	0		$340,988	0
2027		351,216	0		351,216	0
2028		361,757	0		361,757	0
2029		372,611	0		372,611	0
Subtotals		**$3,820,169**	**$0**		**$1,426,573**	**$505,536**
Total Cost						**$1,932,109**
Cost Savings						**$1,888,060**
		Annual Dues and Assessments by Year				
		Annual	Project		Total Dues &	
		Dues	Assessments		Assessments	
FY 14-15		$7,302	$0		$7,302	
FY 15-16		$9,229	$28,908		$38,137	
FY 16-17		9,506	29,776		39,282	
FY 17-18		9,792	48,711		58,503	
FY 18-19		10,087	50,173		60,260	
FY 19-20		10,389	83,174		93,563	
FY 20-21		10,700	85,669		96,369	
FY 21-22		11,021	88,239		99,260	
FY 22-23		11,352	90,886		102,238	
Eight Year Totals		$82,076	$505,536		$587,612	

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Carol Stream**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$30,973
2016	0	0	0	31,902
2017	0	0	0	52,191
2018	$288,397	0	0	53,757
2019	297,049	0	0	89,115
2020	305,958	0	0	91,788
2021	315,143	0	0	94,542
2022	324,604	0	0	97,378
2023	334,341	0	0	0
2024	344,373	0	0	0
2025	354,701	0	0	0
2026	365,345	0	$365,345	0
2027	376,303	0	376,303	0
2028	387,597	0	387,597	0
2029	399,226	0	399,226	0
Subtotals	**$4,093,038**	**$0**	**$1,528,471**	**$541,646**
Total Cost				**$2,070,117**
Cost Savings				**$2,022,921**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$10,627	$0	$10,627
FY 15-16	$13,459	$30,973	$44,432
FY 16-17	13,862	31,902	45,764
FY 17-18	14,279	52,191	66,470
FY 18-19	14,707	53,757	68,464
FY 19-20	15,148	89,115	104,263
FY 20-21	15,603	91,788	107,391
FY 21-22	16,070	94,542	110,612
FY 22-23	16,553	97,378	113,931
Eight Year Totals	$119,681	$541,646	$661,327

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Downers Grove Sanitary District**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$63,094
2016	0	0	0	64,986
2017	0	0	0	106,315
2018	$587,475	0	0	109,504
2019	605,101	0	0	181,530
2020	623,248	0	0	186,976
2021	641,958	0	0	192,585
2022	661,230	0	0	198,363
2023	681,064	0	0	0
2024	701,501	0	0	0
2025	722,539	0	0	0
2026	744,220	0	$744,220	0
2027	766,544	0	766,544	0
2028	789,550	0	789,550	0
2029	813,238	0	813,238	0
Subtotals	**$8,337,669**	**$0**	**$3,113,552**	**$1,103,353**
Total Cost				**$4,216,905**
Cost Savings				**$4,120,764**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$15,539	$0	$15,539
FY 15-16	$19,702	$63,094	$82,796
FY 16-17	20,294	64,986	85,280
FY 17-18	20,903	106,315	127,218
FY 18-19	21,530	109,504	131,034
FY 19-20	22,175	181,530	203,705
FY 20-21	22,841	186,976	209,817
FY 21-22	23,526	192,585	216,111
FY 22-23	24,232	198,363	222,595
Eight Year Totals	$175,203	$1,103,353	$1,278,556

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **DuPage County**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$71,697
2016	0	0	0	73,848
2017	0	0	0	120,812
2018	$667,585	0	0	124,437
2019	687,614	0	0	206,284
2020	708,237	0	0	212,473
2021	729,498	0	0	218,847
2022	751,398	0	0	225,412
2023	773,937	0	0	0
2024	797,160	0	0	0
2025	821,068	0	0	0
2026	845,705	0	$845,705	0
2027	871,073	0	871,073	0
2028	897,216	0	897,216	0
2029	924,134	0	924,134	0
Subtotals	**$9,474,624**	**$0**	**$3,538,128**	**$1,253,810**
Total Cost				**$4,791,938**
Cost Savings				**$4,682,687**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$40,210	$0	$40,210
FY 15-16	$51,069	$71,697	$122,766
FY 16-17	52,599	73,848	126,447
FY 17-18	54,178	120,812	174,990
FY 18-19	55,803	124,437	180,240
FY 19-20	57,478	206,284	263,762
FY 20-21	59,204	212,473	271,677
FY 21-22	60,978	218,847	279,825
FY 22-23	62,806	225,412	288,218
Eight Year Totals	$454,115	$1,253,810	$1,707,925

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Elmhurst**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$45,886
2016	0	0	0	47,263
2017	0	0	0	77,320
2018	$427,254	0	0	79,639
2019	440,073	0	0	132,022
2020	453,272	0	0	135,983
2021	466,879	0	0	140,062
2022	480,895	0	0	144,264
2023	495,320	0	0	0
2024	510,182	0	0	0
2025	525,483	0	0	0
2026	541,251	0	$541,251	0
2027	557,486	0	557,486	0
2028	574,218	0	574,218	0
2029	591,446	0	591,446	0
Subtotals	**$6,063,760**	**$0**	**$2,264,402**	**$802,439**
Total Cost				**$3,066,841**
Cost Savings				**$2,996,919**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$14,540	$0	$14,540
FY 15-16	$18,433	$45,886	$64,319
FY 16-17	18,987	47,263	66,250
FY 17-18	19,556	77,320	96,876
FY 18-19	20,142	79,639	99,781
FY 19-20	20,746	132,022	152,768
FY 20-21	21,370	135,983	157,353
FY 21-22	22,011	140,062	162,073
FY 22-23	22,670	144,264	166,934
Eight Year Totals	$163,915	$802,439	$966,354

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Glenbard Wastewater Authority**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$91,887
2016	0	0	0	94,644
2017	0	0	0	154,833
2018	$855,577	0	0	159,478
2019	881,247	0	0	264,374
2020	907,676	0	0	272,305
2021	934,925	0	0	280,474
2022	962,992	0	0	288,888
2023	991,877	0	0	0
2024	1,021,640	0	0	0
2025	1,052,280	0	0	0
2026	1,083,856	0	$1,083,856	0
2027	1,116,367	0	1,116,367	0
2028	1,149,872	0	1,149,872	0
2029	1,184,371	0	1,184,371	0
Subtotals	**$12,142,679**	**$0**	**$4,534,464**	**$1,606,883**
Total Cost				**$6,141,347**
Cost Savings				**$6,001,331**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$22,531	$0	$22,531
FY 15-16	$28,591	$91,887	$120,478
FY 16-17	29,449	94,644	124,093
FY 17-18	30,333	154,833	185,166
FY 18-19	31,242	159,478	190,720
FY 19-20	32,180	264,374	296,554
FY 20-21	33,146	272,305	305,451
FY 21-22	34,140	280,474	314,614
FY 22-23	35,164	288,888	324,052
Eight Year Totals	$254,245	$1,606,883	$1,861,128

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Glendale Heights**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$30,170
2016	0	0	0	31,075
2017	0	0	0	50,838
2018	$280,920	0	0	52,363
2019	289,348	0	0	86,804
2020	298,026	0	0	89,409
2021	306,973	0	0	92,091
2022	316,188	0	0	94,854
2023	325,673	0	0	0
2024	335,445	0	0	0
2025	345,505	0	0	0
2026	355,873	0	$355,873	0
2027	366,547	0	366,547	0
2028	377,548	0	377,548	0
2029	388,876	0	388,876	0
Subtotals	**$3,986,922**	**$0**	**$1,488,844**	**$527,604**
Total Cost				**$2,016,448**
Cost Savings				**$1,970,474**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$9,231	$0	$9,231
FY 15-16	$11,683	$30,170	$41,853
FY 16-17	12,034	31,075	43,109
FY 17-18	12,395	50,838	63,233
FY 18-19	12,767	52,363	65,130
FY 19-20	13,149	86,804	99,953
FY 20-21	13,544	89,409	102,953
FY 21-22	13,950	92,091	106,041
FY 22-23	14,370	94,854	109,224
Eight Year Totals	$103,892	$527,604	$631,496

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Hanover Park**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$13,881
2016	0	0	0	14,297
2017	0	0	0	23,389
2018	$129,244	0	0	24,091
2019	133,122	0	0	39,937
2020	137,115	0	0	41,135
2021	141,231	0	0	42,369
2022	145,471	0	0	43,640
2023	149,834	0	0	0
2024	154,330	0	0	0
2025	158,959	0	0	0
2026	163,728	0	$163,728	0
2027	168,640	0	168,640	0
2028	173,701	0	173,701	0
2029	178,912	0	178,912	0
Subtotals	**$1,834,287**	**$0**	**$684,981**	**$242,739**
Total Cost				**$927,720**
Cost Savings				**$906,567**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$5,667	$0	$5,667
FY 15-16	$7,153	$13,881	$21,034
FY 16-17	7,367	14,297	21,664
FY 17-18	7,588	23,389	30,977
FY 18-19	7,816	24,091	31,907
FY 19-20	8,049	39,937	47,986
FY 20-21	8,292	41,135	49,427
FY 21-22	8,540	42,369	50,909
FY 22-23	8,797	43,640	52,437
Eight Year Totals	$63,602	$242,739	$306,341

		DuPage River Salt Creek Workgroup				**TABLE 12**
		Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency				
		February 16, 2015				
DRSCW Member:		**Itasca**				
		Baseline - No DRSCW Program			**Eight Year DRSCW Funding Program**	
		O&M	Project		O&M	Project
Year		Costs	Assessments		Costs	Assessments
2015		$0	$0		$0	$14,913
2016		0	0		0	15,360
2017		0	0		0	25,129
2018		$138,858	0		0	25,883
2019		143,024	0		0	42,907
2020		147,313	0		0	44,194
2021		151,736	0		0	45,520
2022		156,291	0		0	46,886
2023		160,979	0		0	0
2024		165,809	0		0	0
2025		170,782	0		0	0
2026		175,907	0		$175,907	0
2027		181,183	0		181,183	0
2028		186,621	0		186,621	0
2029		192,220	0		192,220	0
Subtotals		**$1,970,722**	**$0**		**$735,931**	**$260,792**
Total Cost						**$996,723**
Cost Savings						**$973,999**
		Annual Dues and Assessments by Year				
		Annual	Project		Total Dues &	
		Dues	Assessments		Assessments	
FY 14-15		$5,397	$0		$5,397	
FY 15-16		$6,810	$14,913		$21,723	
FY 16-17		7,014	15,360		22,374	
FY 17-18		7,225	25,129		32,354	
FY 18-19		7,442	25,883		33,325	
FY 19-20		7,664	42,907		50,571	
FY 20-21		7,895	44,194		52,089	
FY 21-22		8,131	45,520		53,651	
FY 22-23		8,375	46,886		55,261	
Eight Year Totals		$60,556	$260,792		$321,348	

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **MWRDGC**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$240,903
2016	0	0	0	248,130
2017	0	0	0	405,929
2018	$2,243,086	0	0	418,107
2019	2,310,384	0	0	693,115
2020	2,379,676	0	0	713,909
2021	2,451,114	0	0	735,326
2022	2,524,698	0	0	757,386
2023	2,600,428	0	0	0
2024	2,678,458	0	0	0
2025	2,758,787	0	0	0
2026	2,841,569	0	$2,841,569	0
2027	2,926,804	0	2,926,804	0
2028	3,014,645	0	3,014,645	0
2029	3,105,092	0	3,105,092	0
Subtotals	**$31,834,738**	**$0**	**$11,888,108**	**$4,212,805**
Total Cost				**$16,100,913**
Cost Savings				**$15,733,825**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$66,661	$0	$66,661
FY 15-16	$84,695	$240,903	$325,598
FY 16-17	87,234	248,130	335,364
FY 17-18	89,852	405,929	495,781
FY 18-19	92,548	418,107	510,655
FY 19-20	95,324	693,115	788,439
FY 20-21	98,185	713,909	812,094
FY 21-22	101,130	735,326	836,456
FY 22-23	104,163	757,386	861,549
Eight Year Totals	$753,131	$4,212,805	$4,965,936

		DuPage River Salt Creek Workgroup				**TABLE 12**
		Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency				
		February 16, 2015				
DRSCW Member:		**Roselle**				
		Baseline - No DRSCW Program			**Eight Year DRSCW Funding Program**	
		O&M	Project		O&M	Project
Year		Costs	Assessments		Costs	Assessments
2015		$0	$0		$0	$19,502
2016		0	0		0	20,087
2017		0	0		0	32,861
2018		$181,583	0		0	33,847
2019		187,031	0		0	56,109
2020		192,640	0		0	57,793
2021		198,423	0		0	59,526
2022		204,380	0		0	61,312
2023		210,511	0		0	0
2024		216,828	0		0	0
2025		223,330	0		0	0
2026		230,032	0		$230,032	0
2027		236,932	0		236,932	0
2028		244,043	0		244,043	0
2029		251,365	0		251,365	0
Subtotals		**$2,577,098**	**$0**		**$962,371**	**$341,037**
Total Cost						**$1,303,408**
Cost Savings						**$1,273,690**
		Annual Dues and Assessments by Year				
		Annual	Project		Total Dues &	
		Dues	Assessments		Assessments	
FY 14-15		$6,609	$0		$6,609	
FY 15-16		$8,350	$19,502		$27,852	
FY 16-17		8,600	20,087		28,687	
FY 17-18		8,859	32,861		41,720	
FY 18-19		9,124	33,847		42,971	
FY 19-20		9,398	56,109		65,507	
FY 20-21		9,680	57,793		67,473	
FY 21-22		9,969	59,526		69,495	
FY 22-23		10,269	61,312		71,581	
Eight Year Totals		$74,249	$341,037		$415,286	

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Salt Creek Sanitary District**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$18,928
2016	0	0	0	19,496
2017	0	0	0	31,894
2018	$176,242	0	0	32,851
2019	181,530	0	0	54,459
2020	186,975	0	0	56,093
2021	192,588	0	0	57,776
2022	198,369	0	0	59,509
2023	204,319	0	0	0
2024	210,450	0	0	0
2025	216,762	0	0	0
2026	223,266	0	$223,266	0
2027	229,963	0	229,963	0
2028	236,865	0	236,865	0
2029	243,971	0	243,971	0
Subtotals	**$2,501,301**	**$0**	**$934,066**	**$331,006**
Total Cost				**$1,265,072**
Cost Savings				**$1,236,229**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$4,814	$0	$4,814
FY 15-16	$6,068	$18,928	$24,996
FY 16-17	6,250	19,496	25,746
FY 17-18	6,438	31,894	38,332
FY 18-19	6,631	32,851	39,482
FY 19-20	6,829	54,459	61,288
FY 20-21	7,035	56,093	63,128
FY 21-22	7,246	57,776	65,022
FY 22-23	7,463	59,509	66,972
Eight Year Totals	$53,960	$331,006	$384,966

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **West Chicago**

Year	Baseline - No DRSCW Program: O&M Costs	Baseline - No DRSCW Program: Project Assessments	Eight Year DRSCW Funding Program: O&M Costs	Eight Year DRSCW Funding Program: Project Assessments
2015	$0	$0	$0	$43,821
2016	0	0	0	45,136
2017	0	0	0	73,840
2018	$408,028	0	0	76,056
2019	420,270	0	0	126,081
2020	432,874	0	0	129,863
2021	445,869	0	0	133,759
2022	459,255	0	0	137,772
2023	473,030	0	0	0
2024	487,224	0	0	0
2025	501,836	0	0	0
2026	516,895	0	$516,895	0
2027	532,400	0	532,400	0
2028	548,378	0	548,378	0
2029	564,831	0	564,831	0
Subtotals	**$5,790,890**	**$0**	**$2,162,504**	**$766,328**
Total Cost				**$2,928,832**
Cost Savings				**$2,862,059**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$14,867	$0	$14,867
FY 15-16	$18,849	$43,821	$62,670
FY 16-17	19,415	45,136	64,551
FY 17-18	19,998	73,840	93,838
FY 18-19	20,598	76,056	96,654
FY 19-20	21,215	126,081	147,296
FY 20-21	21,852	129,863	151,715
FY 21-22	22,507	133,759	156,266
FY 22-23	23,183	137,772	160,955
Eight Year Totals	$167,617	$766,328	$933,945

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Wheaton Sanitary District**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$51,048
2016	0	0	0	52,580
2017	0	0	0	86,018
2018	$475,321	0	0	88,599
2019	489,581	0	0	146,874
2020	504,265	0	0	151,281
2021	519,403	0	0	155,819
2022	534,995	0	0	160,494
2023	551,043	0	0	0
2024	567,578	0	0	0
2025	584,600	0	0	0
2026	602,142	0	$602,142	0
2027	620,204	0	620,204	0
2028	638,818	0	638,818	0
2029	657,984	0	657,984	0
Subtotals	**$6,745,933**	**$0**	**$2,519,147**	**$892,713**
Total Cost				**$3,411,860**
Cost Savings				**$3,334,073**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$12,614	$0	$12,614
FY 15-16	$15,984	$51,048	$67,032
FY 16-17	16,464	52,580	69,044
FY 17-18	16,957	86,018	102,975
FY 18-19	17,466	88,599	106,065
FY 19-20	17,990	146,874	164,864
FY 20-21	18,531	151,281	169,812
FY 21-22	19,087	155,819	174,906
FY 22-23	19,659	160,494	180,153
Eight Year Totals	$142,138	$892,713	$1,034,851

DuPage River Salt Creek Workgroup **TABLE 12**

Cost Savings of Proposed Project Assessments over Phosphorus Removal O&M Costs by DRSCW Member Agency

February 16, 2015

DRSCW Member: **Wood Dale**

	Baseline - No DRSCW Program		Eight Year DRSCW Funding Program	
Year	O&M Costs	Project Assessments	O&M Costs	Project Assessments
2015	$0	$0	$0	$17,781
2016	0	0	0	18,314
2017	0	0	0	29,961
2018	$165,561	0	0	30,860
2019	170,528	0	0	51,159
2020	175,643	0	0	52,693
2021	180,916	0	0	54,274
2022	186,347	0	0	55,902
2023	191,936	0	0	0
2024	197,696	0	0	0
2025	203,625	0	0	0
2026	209,735	0	$209,735	0
2027	216,026	0	216,026	0
2028	222,509	0	222,509	0
2029	229,185	0	229,185	0
Subtotals	**$2,349,707**	**$0**	**$877,456**	**$310,944**
Total Cost				**$1,188,400**
Cost Savings				**$1,161,307**

Annual Dues and Assessments by Year

	Annual Dues	Project Assessments	Total Dues & Assessments
FY 14-15	$5,560	$0	$5,560
FY 15-16	$7,016	$17,781	$24,797
FY 16-17	7,228	18,314	25,542
FY 17-18	7,443	29,961	37,404
FY 18-19	7,667	30,860	38,527
FY 19-20	7,896	51,159	59,055
FY 20-21	8,134	52,693	60,827
FY 21-22	8,378	54,274	62,652
FY 22-23	8,629	55,902	64,531
Eight Year Totals	$62,391	$310,944	$373,335

EXHIBIT 2

DUPAGE RIVER SALT CREEK WORKGROUP
M E M O

TO: Downers Grove Sanitary District

FROM: Stephen McCracken DATE:

January 10, 2022

RE: Updates to Proposed NPDES Permit Special Condition Funding (addendum to the 02/16/2015 DRSCW Project Funding Plan)

NPDES Permit Special Condition Language Extension Language and Summary

In 2015 special condition language was included in the NPDES permits of DRSCW Agency members owning a Publicly Owned Treatment Works (POTW) discharging into the DRSCW watersheds. The special condition, negotiated by DRSCW members, representatives of several environmental groups, IEPA and USEPA Region 5, allowed members to forgo removal of Total Phosphorous (TP) and reallocate the funding to the implementation of local watershed priorities.

The special condition represented acceptance of the DRSCW local funding initiative and allowed funding of projects identified by the DRSCW's IPS tool for an eight year project assessment period. This was then followed by a two - three year period to implement phosphorus reduction to a monthly average limit of 1 mg/l monthly average at participating POTWs.

All seventeen DRSCW member agencies with POTWs participated in the special condition, with two (Village of Itasca and Village of Bensenville) participating at a reduced level as both plants were already meeting 1 mg/l for TP. In 2021 the DRSCW negotiated an option for members to remain in the special condition for an additional three years with its partners. Twelve member agencies have elected to use this option (Table 1) and remain in the special condition.

Duration of Compliance and Assessment Schedules

The original special condition and assessment schedule agreed on by the DRSCW, IEPA and USEPA Region 5 contained a compliance schedule for TP of ten years for those using chemical precipitation and eleven years for biological phosphorus removal. The accompanying assessment schedule was eight years. The extension adds three years to both the TP removal schedule (now thirteen years for chemical precipitation and fourteen years for biological phosphorus removal) and sets up an eleven years assessment schedule.

Overview of Recommended DRSCW Funding Plan Extension

DRSCW Agency members are public agencies holding an NPDES permit for a discharge from a publicly owned treatment works or from a municipal separate storm sewer system into the DRSCW watersheds. DRSCW Agency members currently fund the monitoring, assessment, administration and project identification and prioritization activities of the Workgroup through annual dues.

Under the 2015 Special Condition Agency members with a POTW funded projects via an assessment in addition to their inflation adjusted membership dues. The projects identified for funding were listed in the permits of DRSCW Agency members owning a POTW.

The funding plan extension allows member agencies to extend their special condition for a further three years by maintaining their funding of watershed improvement projects identified by the DRSCW's IPS Tool. To date a total of twelve agencies have elected to adopt the extension generating an additional $3,998,832 in special assessments over the three years extension period. Signed amendments to the 2015 agreements are being pursued with all of these agencies. To date (1/10/2022) seven of the twelve agencies have supplied signed amendments.

Estimated Cost of Alternative Stream Improvement Projects

The 2015 special condition and implementation plan submitted by DRSCW to IEPA and USEPA Region 5 contained a process to identify and prioritize alternative stream improvement projects based on the IPS tool. The specific projects to be completed and the total amount to be invested in such projects was to be determined by DRSCW members collectively based on the level of participation in the assessment extension by DRSCW Agency members with a POTW. The estimated allocation of funds from the extension of the special condition are provided below:

Table 1. Proposed Allocation of Special Assessment Extension Funds

Project Name	Estimated Project Costs
East Branch Phase II	$1,200,000
Lower Salt Creek Phase 2	$1,200,000
West Branch Restoration Project	$1,200,000
NIP Support studies	$398,832
Total Estimated Project Costs	$3,998,832

The DRSCW's Negotiation Team has estimated that the special condition extension is viable once a threshold of $3,000,000 is reached. If fewer members ultimately adopt the extension the individual allocations in Table 1 will be reduced accordingly.

Implementation of the DRSCW Funding Plan

Public notice draft permits that incorporate the additional projects and the extended schedule for meeting a future TP limit are currently being issued by IEPA and USEPA Region 5. Under the Permit Extension participating DRSCW Agency members will: continue funding the DRSCW monitoring, assessment, and administration activities at inflation adjusted current levels through the payment of annual DRSCW Agency member dues; fund project implementation at the level identified here through the payment of an annual DRSCW project assessment; implement agreed upon projects; and report project implementation progress and spending via an annual progress report submitted to Illinois EPA on January 1 of each year. The DRSCW will administer the funding program; enter into contracts with project sponsors to design and construct the selected projects; identify, prioritize and build consensus for additional projects beyond those contained in the special condition table; prepare and submit reports as indicated in the special condition table and return any unused project assessment funds to Agency members in proportion to their assessment payments. The Agreements will not be accepted by the DRSCW until the Workgroup has received signed Agreements containing assessment payment pledges from enough DRSCW Agency members to meet the minimum funding level of $3,000,000.

The DRSCW is currently finalizing amendments to the 2015 agreements with all Agency members who have a POTW and have informed the DRSCW that they desire to remain in the special conditions.

Details of Recommended DRSCW Funding Plan

All of the conditions of the 2015 agreement remain in force. Table 2 documents the additional obligations of agencies opting to remain in the special condition (adopt the extension).

Next Actions

Amendments will be signed with all agencies who have indicated their intention to remain in the special condition for an additional three years.

DuPage River Salt Creek Workgroup					TABLE 2
Proposed Dues and Assessments			THREE YEAR PROGRAM TOTALS		
Summary by Three Year Extension			FY 23-24 THROUGH FY 25-26		
January 06, 2022					
	Total	Total		Project Funding	
	Tributary	POTW	Annual	Assessment	Total
Current Agency Members	Acreage	MGD	Dues	Amounts	Amount
Addison	6,053	8.5	74,547	413,856	488,403
Arlington Heights	895		3,058	-	3,058
Bartlett	3,765	3.68	35,557		35,557
Bensenville	1,575	4.7	37,298		37,298
Bloomingdale	4,413	3.45	35,539	167,979	203,518
Bolingbrook	130	5.04	36,142	245,391	281,533
Carol Stream	5,908	5.4	52,701	262,920	315,621
Clarendon Hills	446		1,966	-	1,966
Downers Grove	9,162		23,179	-	23,179
Downers Grove SD		11	77,143	535,581	612,724
DuPage County	46,189	12.5	199,954	608,613	808,567
Elmhurst	6,504	8	72,168	389,514	461,682
Glen Ellyn	4,274		11,283	-	11,283
Glenbard WW Authority		16.02	111,947	779,997	891,944
Glendale Heights	3,450	5.26			0
Hanover Park	4,251	2.42	28,001	117,828	145,829
Hinsdale	537		2,185	-	2,185
Hoffman Estates	3,581		9,597	-	9,597
Itasca	3,187	2.6	26,660		26,660
Lisle	4,303		11,352	-	11,352
Lombard	6,318		16,256	-	16,256
MWRDGC	16,251	42			0
Naperville	12,882		32,235	-	32,235
Northlake	1,728		5,084	-	5,084
Oakbrook Terrace	923		3,127	-	3,127
Roselle	3,385	3.4	32,692	165,543	198,235
Salt Creek SD		3.3	23,758	160,674	184,432
Schaumburg	10,532		26,519	-	26,519
Villa Park	3,039		8,280	-	8,280
Warrenville	3,571		9,573	-	9,573
West Chicago	8,199	7.64	73,801		73,801
Westmont	2,465		6,878	-	6,878
Wheaton	7,276		18,585	-	18,585
Wheaton SD					0
Winfield	1,645		4,880	-	4,880
Wood Dale	2,095	3.1	27,470	150,936	178,406
Woodridge	3,426		9,219	-	9,219
Totals	188,593	144.33	1,113,077	3,998,832	5,111,909

This attachment has been removed for its contents are currently confidential.

DOWNERS GROVE SANITARY DISTRICT

M E M O

TO: Board of Trustees

FROM: Amy R. Underwood, P.E.
General Manager

DATE: January 14, 2022

RE: Administrative Services Progress Report – December 2021

ADMINISTRATIVE

Personnel

Interviews for the Administrative Supervisor position will be held the week of January 17.

Technology Update

Evaluation of a cloud-based phone system as an upgrade for the District's mix of desk phones and smartphones infrastructure has been temporarily placed on hold for a few months.

Concentric Integration and Kazys Motekaitis of Exodus Technology Services continue to provide IT support services.

The customer billing portal project with CityInsight is continuing to proceed. CityInsight plans to do their internal testing of the portal February 21 – March 4. If everything proceeds as planned, we anticipate going live with the new customer billing portal in June. CityInsight will be working with the District's Information Coordinator in the next few months to develop promotional materials to inform customers of the new billing portal.

The following is a detailed summary of the Invoice Cloud portal's utilization in the last month and since the portal's launch in February 2015 through the end of last month:

# of Customers registered in the last month:	90
# of Customers paying their bills online in the last month:	1703
Amount of Money processed through the Portal in the last month:	$108,084.65
# of Customers signing up for Autopay through the Portal in the last month:	87
# of Customers enrolled in paperless billing in the last month:	65
# of customers registered for pay by text in the last month:	17
Cost to District for providing Invoice Cloud service in the last month:	$503.40
Cost to District's customers (convenience fees) in the last month:	$2,807.31
Estimated Monthly savings from customers enrolled in paperless billing:	$103.74
# of Customers registered from launch through last month:	6.709
# of Customers signing up for Autopay through the Portal from launch through last month:	2,711
# of Customers enrolled in paperless billing from launch through last month:	3458
# of customers registered for pay by text from launch through last month:	2,094

FINANCIAL

W-2s and 1099s

Carly Shaw, Accounting Assistant for the District, and I compiled, prepared and issued W-2s (for employees) last week and prepared 1099s (for vendors) this week for tax year 2021 in compliance with IRS regulations.

Treasurer's Report and Investment Activity

The monthly Treasurer's Report is included separately in the packet each month and detailed investment information (financial institution name, current rate and dollar amount) is provided on the District's Investment Schedule also provided separately in the packet each month.

The CD at BMO Harris Bank expired on December 17. The CD was cashed, and the money was deposited in the District's account at Chase. Staff has not found interest rates on new CDs or money market accounts that are favorable enough to invest this money at this time.

User Billing

Detailed billing information is attached to this report.

cc: WDVB, AES, PWC, KJR, RTJ, MJS, MGP

USER BILLING SUMMARY

User Charge System

Billings for December 2021 were as follows:

User	$294,835.33
Surcharge	36,105.79
Monthly fees	353,718.92
Total	$684,660.04
Summer Usage Adjustment	$20.96
Billable Flow	151,208,354
Budgeted Billable Flow	145,849,497
% Actual/Budgeted Billable Flow	103.67%
YTD Billable Flow	1,591,729,881
YTD Budgeted Billable Flow	1,375,826,828
% Actual/Budgeted Billable Flow	115.69%

The user accounts receivable balance on 12/31/2021 is $701,357.59 and consists of:

Current charges due 1/14/2022	$536,845.26
Past due charges and penalty	164,512.33
Total	$701,357.59

The past due charges represent:

Age	User Charges	Penalty	Totals
30 days past due	$38,669.51	$5,435.97	$44,105.48
60 days past due	26,830.43	3,589.94	30,420.37
90 days & greater past due	75,563.02	14,423.46	89,986.48
Totals	$141,062.96	$23,449.37	$164,512.33

Summary of
Past Due Charges
(90 Days and Over)

Five Year Comparison

December

Year	User Charges	Penalty	Total	
2021	$75,563.02	$14,423.46	$89,986.48	
2020	104,927.73	15,924.29	120,852.02	****
2019	42,249.41	5,454.98	47,704.39	***
2018	37,925.83	4,581.75	42,507.58	***
2017	42,305.17	5,072.42	47,377.59	**

****All accounts that were dug up/disconnected from sewer have been paid
***Includes $10,462.28 in sewer disconnection costs on 2 accounts plus late fees
**Includes $13,020.74 in sewer disconnection costs on 4 accounts plus late fees
*Includes $17,128.69 in sewer disconnection costs on 6 accounts plus late fees

Twelve Months Ending December 2021

Month Ending	User Charges	Penalty	Total
12/31/21	$75,563.02	$14,423.46	$89,986.48
11/30/21	75,609.04	14,075.95	89,684.99
10/31/21	67,897.08	13,646.54	81,543.62
9/30/21	82,506.50	24,480.75	106,987.25
8/31/21	85,080.45	13,899.39	98,979.84
7/31/21	81,057.19	12,872.45	93,929.64
6/30/21	83,697.16	13,417.21	97,114.37
5/31/21	84,924.29	13,494.61	98,418.90
4/30/21	77,863.95	12,505.71	90,369.66
3/31/21	79,415.08	12,379.57	91,794.65
2/28/21	79,355.03	11,905.29	91,260.32
1/31/21	105,977.30	15,756.19	121,733.49

All accounts that were disconnected for non payment of sewer charges have been paid. One of these accounts still remains disconnected and has no current plans to reconnect in the future.

To: Amy Underwood, General Manager
From: Marc Majewski, Operations Supervisor
Re: Month of December, 2021 WWTC Operations Report.
Date: January 11, 2022

Attached please find detailed operating data and our monthly report to Illinois EPA for December. We had no excursions over our permit limits in the month of December.

Certain highlights of operational activities included:

- Monthly flow: Average daily flows to the plant were 9.27 MGD. Total precipitation at the WWTC was 2.72". There were no excess flow events during the month of December. There was 7 days of discharge over 11 MGD.

- Activated sludge: Operating performance was satisfactory throughout the month of December. Floc formers are predominating leading to good solids settling.

- Anaerobic Digesters: Pumped a total of 1,273,813 gallons of primary sludge, 263,774 gallons of TWAS, and 326,423 gallons of waste grease for a total of 1,864,010 gallons pumped to digesters. Total Volatile Solids destruction was calculated at 68.2% for December.

- Digester gas: Total digester gas production was 5,588,742 cubic feet. 65,459 cubic feet of gas was used for anaerobic digestion heat, and 5,461,698 cubic feet was used in the CHP facilities. 7,781 cubic feet of flared gas was recorded during the month. The Munters dehumidifier used 53,804 cubic feet of gas.

- Bio-solids: No bio-solids was distributed in the month of December. Total class A distribution for 2021 was 1,405 Dry Tons, and Class B hauling was 440 dry tons, for a total of 1, 845 dry tons distributed. Bio mechanics are beginning the annual tear down and repair of the bio-solid augers.

- Electricity: Overall net energy from ComEd was: -58,518 KW-Hrs. Electricity Generated by the CHP system was 439,360 KW-Hrs. Monthly net energy (including natural gas usage) was -27 MW-Hrs for the month of December.

C: WDVB, AES, PWC, KJR, RTJ, MJS, MGP

Monthly Operations Report Page 1

Date	WWTC Rainfall inches	B01 Parshall Flume Flow Max MGD	B01 Parshall Flume Flow Min MGD	B01 Parshall Flume Flow Avg (Daily Total) MGD	A01 Parshall Flume Flow Max MGD	A01 Parshall Flume Flow Avg (Daily Total) MGD	C01 Int Clar #1 Flow Max MGD	C01 Int Clar #1 Flow Avg (Daily Total) MGD	Outfall 003 Flow Max MGD	Outfall 003 Flow Avg (Daily Total) MGD	Total Flow Leaving WWTC Avg (Daily Total) MGD	Total Flow Leaving WWTC Max MGD	002 Outfall Flow Avg (Daily Total) MGD
12/1/2021	0.00	9.75	3.73	6.74	0.00	0.00	0.00	0.00	0.00	0.00	6.74	9.75	0.00
12/2/2021	0.00	9.69	3.94	6.71	0.00	0.00	0.00	0.00	0.00	0.00	6.71	9.69	0.00
12/3/2021	0.00	9.65	3.68	6.51	0.00	0.00	0.00	0.00	0.00	0.00	6.51	9.65	0.00
12/4/2021	0.00	9.64	3.72	6.46	0.00	0.00	0.00	0.00	0.00	0.00	6.46	9.64	0.00
12/5/2021	0.31	12.15	3.51	7.83	0.00	0.00	0.00	0.00	0.00	0.00	7.83	12.15	0.00
12/6/2021	0.00	10.72	5.03	7.90	0.00	0.00	0.00	0.00	0.00	0.00	7.90	10.72	0.00
12/7/2021	0.00	10.00	4.08	7.24	0.00	0.00	0.00	0.00	0.00	0.00	7.24	10.00	0.00
12/8/2021	0.00	9.68	4.21	7.06	0.00	0.00	0.00	0.00	0.00	0.00	7.06	9.68	0.00
12/9/2021	0.00	9.81	4.11	6.97	0.00	0.00	0.00	0.00	0.00	0.00	6.97	9.81	0.00
12/10/2021	0.93	21.71	0.70	9.67	0.00	0.00	0.00	0.00	0.00	0.00	9.67	21.71	0.00
12/11/2021	0.01	21.80	12.66	17.45	0.00	0.00	0.00	0.00	0.00	0.00	17.45	21.80	0.00
12/12/2021	0.00	15.12	9.31	11.74	0.00	0.00	0.00	0.00	0.00	0.00	11.74	15.12	0.00
12/13/2021	0.00	15.56	6.01	9.86	0.00	0.00	0.00	0.00	0.00	0.00	9.86	15.56	0.00
12/14/2021	0.04	12.93	2.47	9.14	0.00	0.00	0.00	0.00	0.00	0.00	9.14	12.93	0.00
12/15/2021	0.01	12.67	6.43	9.23	0.00	0.00	0.00	0.00	0.00	0.00	9.23	12.67	0.00
12/16/2021	0.00	13.25	3.29	8.13	0.00	0.00	0.00	0.00	0.00	0.00	8.13	13.25	0.00
12/17/2021	0.00	10.64	5.10	8.03	0.00	0.00	0.00	0.00	0.00	0.00	8.03	10.64	0.00
12/18/2021	0.14	13.75	5.90	8.64	0.00	0.00	0.00	0.00	0.00	0.00	8.64	13.75	0.00
12/19/2021	0.00	13.83	5.00	8.17	0.00	0.00	0.00	0.00	0.00	0.00	8.17	13.83	0.00
12/20/2021	0.00	12.29	4.94	8.04	0.00	0.00	0.00	0.00	0.00	0.00	8.04	12.29	0.00
12/21/2021	0.00	11.15	4.67	7.91	0.00	0.00	0.00	0.00	0.00	0.00	7.91	11.15	0.00
12/22/2021	0.00	10.96	4.80	7.72	0.00	0.00	0.00	0.00	0.00	0.00	7.72	10.96	0.00
12/23/2021	0.00	14.54	0.49	7.44	0.00	0.00	0.00	0.00	0.00	0.00	7.44	14.54	0.00
12/24/2021	0.00	11.49	4.85	7.75	0.00	0.00	0.00	0.00	0.00	0.00	7.75	11.49	0.00
12/25/2021	0.04	10.34	4.74	7.04	0.00	0.00	0.00	0.00	0.00	0.00	7.04	10.34	0.00
12/26/2021	0.37	11.01	4.23	7.26	0.00	0.00	0.00	0.00	0.00	0.00	7.26	11.01	0.00
12/27/2021	0.41	21.76	8.49	17.48	0.00	0.00	0.00	0.00	0.00	0.00	17.48	21.76	0.00
12/28/2021	0.16	15.55	9.65	12.61	0.00	0.00	0.00	0.00	0.00	0.00	12.61	15.55	0.00
12/29/2021	0.29	19.67	12.04	15.14	0.00	0.00	0.00	0.00	0.00	0.00	15.14	19.67	0.00
12/30/2021	0.01	15.74	10.21	12.98	0.00	0.00	0.00	0.00	0.00	0.00	12.98	15.74	0.00
12/31/2021	0.00	15.61	9.21	12.39	0.00	0.00	0.00	0.00	0.00	0.00	12.39	15.61	0.00
Minimum	0.00	9.64	0.49	6.46	0.00	0.00	0.00	0.00	0.00	0.00	6.46	9.64	0.00
Maximum	0.93	21.80	12.66	17.48	0.00	0.00	0.00	0.00	0.00	0.00	17.48	21.80	0.00
Total	2.72	412.43	171.24	287.22	0.00	0.00	0.00	0.00	0.00	0.00	287.22	412.43	0.00
Average	0.09	13.31	5.52	9.27	0.00	0.00	0.00	0.00	0.00	0.00	9.27	13.31	0.00

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Date	Tertiary Flow MGD	MLSS Avg	Activated Sludge Inventory Lbs MLSS LBS	Activated Sludge SRT Days DAYS	15 Minutes Aeration Settling % mL/L	30 Minutes Aeration Settling % mL/L	60 Minutes Aeration Settling % mL/L	Sludge Volume Index mL/g	System 1 RAS TSS mg/l	System 2 RAS TSS mg/l	Dupage River Outfall DO mg/l
12/1/2021	6.74	2,929	90,859	14.64	70	51	37	174		5,133	8.0
12/2/2021	6.71	3,048	94,552	14.31	60	45	35	146	3,753		
12/3/2021	6.51	2,610	80,985	13.26	63	53	37	202		4,756	
12/4/2021	6.46		80,985	13.30							
12/5/2021	7.83		80,985	13.28							8.1
12/6/2021	7.90	2,796	86,742	11.10	72	52	40	187		5,945	
12/7/2021	7.24	2,571	79,748	9.64	41	31	26	122	3,650		8.4
12/8/2021	7.06	2,730	84,683	11.81	58	42	30	154		5,096	7.9
12/9/2021	6.97	2,636	81,782	11.43	48	35	28	132	4,129		
12/10/2021	9.67	2,849	88,371	13.21	34	26	22	93		4,784	
12/11/2021	17.45		88,371	13.23							
12/12/2021	11.74		88,371	13.25							
12/13/2021	9.86	2,516	78,055	8.83	42	32	26	126		6,303	8.6
12/14/2021	9.14	2,538	78,729	8.82	41	29	23	114	4,463		8.2
12/15/2021	9.23	2,469	76,597	10.19	38	29	23	117		5,152	8.3
12/16/2021	8.13	2,285	70,888	9.55	38	29	24	125	4,217		
12/17/2021	8.03	2,323	72,067	12.00	39	29	24	126		4,137	
12/18/2021	8.64		85,111	11.99							
12/19/2021	8.17		72,067	11.94							
12/20/2021	8.04	2,401	74,480	12.97	32	25	20	105		3,943	8.5
12/21/2021	7.91	2,359	73,177	12.75	40	30	25	128	3,544		8.3
12/22/2021	7.72	2,390	74,136	11.41	38	28	24	118		4,470	8.2
12/23/2021	7.44	2,381	73,862	11.43	41	31	25	130	2,969		
12/24/2021	7.75		73,862	11.34							
12/25/2021	7.04		73,862	11.47							
12/26/2021	7.26		73,862	11.46							
12/27/2021	17.48	1,798	55,766	5.70	25	19	16	106		6,779	5.1
12/28/2021	12.61	2,222	68,935	7.10	38	28	23	127	3,390		8.0
12/29/2021	15.14	2,030	62,977	7.09	34	25	21	124		6,395	8.0
12/30/2021	12.98	2,152	66,750	8.59	43	31	26	145	3,552		
12/31/2021	12.39		66,750	8.66							
Minimum	6.46	1,798	55,765.71	5.70	25.27	19.02	16.27	93.06	2,969	3,943	5.1
Maximum	17.48	3,048	94,552.05	14.64	71.66	52.68	39.51	201.54	4,463	6,779	8.6
Total	287.22	52,030	2,398,367.43	345.75	936.97	701.73	553.36	2,801.19	33,667	62,893	103.6
Average	9.27	2,478	77,366.68	11.15	44.52	33.33	26.43	133.38	3,741	5,241	8.0

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Date	Tertiary Flow MGD	Influent BOD 5 mg/l	Primary Clarifier BOD 5 mg/l	Intermediate Clarifier CBOD 5 mg/l	Tertiary Effluent CBOD 5 mg/l	Tertiary Effluent CBOD 5 Load	BOD 5 Removal % %	Ambient Air Temp Min Deg F	Ambient Air Temp Max Deg F	Influent Flow Temp Deg F
12/1/2021	6.74	280			1.2	67	99.3	31	48	64.8
12/2/2021	6.71	358	94	2.6	1.1	62	99.4	41	60	65.1
12/3/2021	6.51							37	56	
12/4/2021	6.46							31	47	
12/5/2021	7.83							34	42	
12/6/2021	7.90	278			0.9	59	99.3	14	38	64.0
12/7/2021	7.24	335	88	2.2	0.8	48	99.4	11	25	63.5
12/8/2021	7.06	150			1.0	59	98.1	24	37	63.2
12/9/2021	6.97	133	92	4.2	0.8	46	98.2	27	47	63.5
12/10/2021	9.67							33	60	
12/11/2021	17.45							32	58	
12/12/2021	11.74							32	50	
12/13/2021	9.86	322			0.9	74	99.3	30	52	64.4
12/14/2021	9.14	138	67	2.1	1.0	76	98.4	29	54	60.4
12/15/2021	9.23	347			0.7	54	99.4	51	66	61.0
12/16/2021	8.13	173	88	5.2	0.8	54	98.8	33	66	60.9
12/17/2021	8.03							24	42	0.0
12/18/2021	8.64							31	40	
12/19/2021	8.17							27	39	
12/20/2021	8.04	260			0.6	40	99.2	26	45	61.9
12/21/2021	7.91	293	98	3.0	0.6	40	99.2	23	42	61.5
12/22/2021	7.72	273			0.5	32	99.0	19	33	61.2
12/23/2021	7.44	280	94	6.0	0.7	43	98.9	26	46	61.6
12/24/2021	7.75							33	57	
12/25/2021	7.04							30	54	
12/26/2021	7.26							24	47	
12/27/2021	17.48	243			2.8	408	96.9	32	47	58.8
12/28/2021	12.61	204	58	1.4	1.5	158	98.0	31	47	58.4
12/29/2021	15.14	162			1.4	177	98.0	29	38	58.2
12/30/2021	12.98	177	56	1.0	1.0	108	98.2	29	37	
12/31/2021	12.39							31	43	
Minimum	6.46	133	56	1.0	0.50	32	96.9	11	25	0.0
Maximum	17.48	358	98	6.0	2.80	408	99.4	51	66	65.1
Total	287.22	4,406	735	27.7	18.30	1,607	1,777.3	1,052	1,462	1,052.4
Average	9.27	245	82	3.1	1.02	89	98.7	29	47	58.5

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Date	Tertiary Flow MGD	Influent TSS mg/l	Primary Clarifier TSS mg/l	Intermediate Clarifier TSS mg/l	Tertiary Effluent TSS mg/l	Tertiary Effluent TSS Load lbs/day	TSS Removal % %	Influent pH SU	Primary Clarifier pH SU	Tertiary Effluent pH SU	Intermediate pH SU
12/1/2021	6.74	285			0.2	11	99.9	7.5	7.6	6.8	7.1
12/2/2021	6.71	285	42	7.9	0.4	22	99.9	7.5	7.6	6.8	7.1
12/3/2021	6.51	344			0.5	27	99.9	7.5	7.7	6.8	7.0
12/4/2021	6.46	248			0.6	32	99.8				
12/5/2021	7.83	244			0.4	26	99.8				
12/6/2021	7.90	240			0.3	20	99.9	7.5	7.6	6.9	7.0
12/7/2021	7.24	295	40	5.4	0.3	18	99.9	7.6	7.7	6.9	7.0
12/8/2021	7.06	265			0.5	29	99.8	7.6	7.7	6.7	7.0
12/9/2021	6.97	240	42	16.4	0.6	35	99.8	7.5	7.6	6.8	7.0
12/10/2021	9.67	352			1.8	145	99.5	7.5	7.6	6.8	7.0
12/11/2021	17.45	156			6.6	960	95.8				
12/12/2021	11.74	196			1.0	98	99.5				
12/13/2021	9.86	400			0.5	41	99.9	7.7	7.6	7.2	7.2
12/14/2021	9.14	220	39	4.1	0.4	30	99.8	7.6	7.6	7.0	7.1
12/15/2021	9.23	184			0.4	31	99.8	7.6	7.6	7.0	7.1
12/16/2021	8.13	140	44	11.2	0.3	20	99.8	7.5	7.6	7.0	7.2
12/17/2021	8.03	168			0.5	33	99.7	7.6	7.6	6.9	7.2
12/18/2021	8.64	152			0.3	22	99.8				
12/19/2021	8.17	208			0.4	27	99.8				
12/20/2021	8.04	265			0.5	34	99.8	7.6	7.6	7.1	7.1
12/21/2021	7.91	224	84	10.0	0.6	40	99.7	7.6	7.7	7.0	7.1
12/22/2021	7.72	236			0.5	32	99.8	7.6	7.6	7.0	7.1
12/23/2021	7.44	240	43	26.2	0.8	50	99.7	7.6	7.6	7.0	7.1
12/24/2021	7.75	272			0.5	32	99.8	7.5	7.5	7.0	7.1
12/25/2021	7.04	184			0.2	12	99.9				
12/26/2021	7.26	224			0.4	24	99.8				
12/27/2021	17.48	268			5.1	743	98.1	7.5	7.6	6.9	7.0
12/28/2021	12.61	196	19	3.0	1.6	168	99.2	7.8	7.8	7.1	7.3
12/29/2021	15.14	116			1.1	139	99.1	7.6	7.7	7.1	7.4
12/30/2021	12.98	156	15	3.9	0.7	76	99.6	7.7	7.9	7.2	7.4
12/31/2021	12.39	100			0.6	62	99.4	7.7	7.8	7.2	7.5
Minimum	6.46	100	15	3.0	0.2	11	95.8	7.5	7.5	6.7	7.0
Maximum	17.48	400	84	26.2	6.6	960	99.9	7.8	7.9	7.2	7.5
Total	287.22	7,103	368	88.1	28.6	3,041	3,085.7	174.4	175.9	160.2	164.1
Average	9.27	229	41	9.8	0.9	98	99.5	7.6	7.6	7.0	7.1

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Date	Tertiary Flow MGD	Influent Ammonia-N mg/l	Tertiary Ammonia-N mg/l	Tertiary Effluent Ammonia-N Load lbs/day	Chlorine Residual mg/l	Fecal Coliform col/100ml
12/1/2021	6.74	23.76	0.10	5.6		
12/2/2021	6.71					
12/3/2021	6.51					
12/4/2021	6.46					
12/5/2021	7.83	16.88	0.10	6.5		
12/6/2021	7.90	23.32	0.10	6.6		
12/7/2021	7.24	26.64	0.10	6.0		
12/8/2021	7.06	24.28	0.17	10.0		
12/9/2021	6.97	21.20	0.10	5.8		
12/10/2021	9.67					
12/11/2021	17.45				0.03	
12/12/2021	11.74	9.94	0.10	9.8		
12/13/2021	9.86	19.04	0.11	9.0		
12/14/2021	9.14	19.40	0.27	20.6		
12/15/2021	9.23	19.14	0.10	7.7		
12/16/2021	8.13	21.98	0.22	14.9		
12/17/2021	8.03					
12/18/2021	8.64					
12/19/2021	8.17	15.32	0.10	6.8		
12/20/2021	8.04	20.60	0.10	6.7		
12/21/2021	7.91	18.28	0.10	6.6		
12/22/2021	7.72	20.56	0.40	25.8		
12/23/2021	7.44	16.56	0.10	6.2		
12/24/2021	7.75					
12/25/2021	7.04					
12/26/2021	7.26	18.36	0.10	6.1		
12/27/2021	17.48	10.12	0.97	141.4	0.03	
12/28/2021	12.61	14.28	1.24	130.4	0.03	
12/29/2021	15.14	9.28	0.99	125.0	0.03	
12/30/2021	12.98	7.76	0.30	32.5		
12/31/2021	12.39					
Minimum	6.46	7.76	0.10	5.6	0.03	
Maximum	17.48	26.64	1.24	141.4	0.03	
Total	287.22	376.70	5.87	590.1	0.12	
Average	9.27	17.94	0.28	28.1	0.03	

SLUDGE DATA

Primary Sludge	TS	2.45 %	1,273,813	Gallons
WAS to Thickener	TS	2.33 %	766,730	Gallons
TWAS to Digester 4	TS	5.30 %	263,774	Gallons
Hauled Grease to Digs	TS	9.00 %	326,423	Gallons
Anaerobically Digested Sludge Pumping				
Drying Beds	TS	2.75 %	229,740	Gallons
BFP	TS	2.81 %	798,894	Gallons
Lagoons	TS	%		Gallons
Total			1,028,634	Gallons
VS Destruction			68.2	%

Biosolids Disposal

Class A Distribution	Dec		Dry Tons
Class B Hauling	Dec		Dry Tons
Total	Dec		Dry Tons
Class A Distribution	YTD	1,405	Dry Tons
Class B Hauling	YTD	440	Dry Tons
Total	YTD	1,845	Dry Tons

ENERGY DATA

Total Digester Gas Production	5,588,742	SCF
Gas Volume per Volatile Solids Load	10.9	Cu.Ft./Lb.

Digester Gas Utilization

Heat Exchangers	65,459	SCF
Dehumidification	53,804	SCF
CHP	5,461,698	SCF
Total	5,580,962	SCF
Digester Gas Flared	7,781	SCF

Natural Gas Consumed

WWTC	36,400	SCF
MSB	34,100	SCF
Chemical Feed	28,700	SCF
5006 Walnut	23,900	SCF
Kilowatt-hours Generated CHP	439,360	KWH
Net energy from Comed	-58,518	KWH
Monthly net energy	-27	MWH

MISCELLANEOUS

Grit Removal	Dec	20	Cu. Yds
Grit Removal	YTD	220	Cu. Yds
Anaerobic Supernate		909,893	Gallons
Waste Activated Sludge		166,187	Gals/Day
City Water Consumed		43,384	Gallons

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Date	Tertiary Flow MGD	Influent Phosphorus mg/l	Tertiary Effluent Phosphorus mg/l	Influent Phosphorus Load lbs/day	Tertiary Effluent Phosphorus Load lbs/day	Phosphorus Removal % %	Influent Nitrogen mg/l	Tertiary Effluent Nitrogen mg/l	Influent Nitrogen Load lbs/day	Tertiary Effluent Nitrogen Load lbs/day	Nitrogen Removal % %	Tertiary Effluent Nitrate Grab mg/l
12/1/2021	6.74											
12/2/2021	6.71											26.11
12/3/2021	6.51											
12/4/2021	6.46											
12/5/2021	7.83											
12/6/2021	7.90	5.28	3.74	343.0	246.4	29.2						
12/7/2021	7.24											25.85
12/8/2021	7.06											
12/9/2021	6.97											
12/10/2021	9.67											
12/11/2021	17.45											
12/12/2021	11.74											
12/13/2021	9.86	7.64	2.04	619.6	167.7	73.3						
12/14/2021	9.14											
12/15/2021	9.23						39.8	12.4	3,082.2	954.5	69.0	
12/16/2021	8.13											28.51
12/17/2021	8.03											
12/18/2021	8.64											
12/19/2021	8.17											
12/20/2021	8.04	6.12	3.24	422.0	217.3	47.1						
12/21/2021	7.91											
12/22/2021	7.72											
12/23/2021	7.44											22.81
12/24/2021	7.75											
12/25/2021	7.04											
12/26/2021	7.26											
12/27/2021	17.48											
12/28/2021	12.61											11.89
12/29/2021	15.14											
12/30/2021	12.98											
12/31/2021	12.39											
Minimum	6.46	5.28	2.04	343.0	167.7	29.2	39.8	12.4	3,082.2	954.5	69.0	11.89
Maximum	17.48	7.64	3.74	619.6	246.4	73.3	39.8	12.4	3,082.2	954.5	69.0	28.51
Total	287.22	19.04	9.02	1,384.7	631.4	149.5	39.8	12.4	3,082.2	954.5	69.0	115.17
Average	9.27	6.35	3.01	461.5	210.5	49.9	39.8	12.4	3,082.2	954.5	69.0	23.03

DMR Copy of Record

Permit					
Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	001 External Outfall	**Discharge:**	**001-0** COMBINED DISCHARGE FROM A01, B01, & C01		
Report Dates & Status					
Monitoring Period:	**From 12/01/21 to 12/31/21**	**DMR Due Date:**	**01/25/22**	**Status:**	**NetDMR Validated**
Considerations for Form Completion					
W0430300002 ; NUMBER OF DAYS OF DISCHARGE.COMBINED OUTFALLS: A01-MIXING CHAMBER DISCHARGE TO E BR OF DUPAGE RIVER-EFFECTIVE WHEN FLOWS TO TRT PLT ARE GREATER THAN 22 MGD & EXCESS FLOW FAC IS IN OPERATION. 002 BECOMES OPERATIONAL WHEN 001, A01,& B01 EXCEED 30 MGD.					
Principal Executive Officer					
First Name:	Amy	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Underwood				
No Data Indicator (NODI)					
Form NODI:	--				

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00300	**Oxygen, dissolved [DO]**	1 - Effluent Gross	0	--	Sample						=	8.0	=	7.0	=	5.1	19 - mg/L	0	03/DW - 3 Days Every Week	GR - GRAB
					Permit Req.							Req Mon MO AV MN		Req Mon MN WK AV		Req Mon DAILY MN	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00310	**BOD, 5-day, 20 deg. C**	1 - Effluent Gross	0	--	Sample								=	2.7	=	4.5	19 - mg/L	0	04/07 - Four Per Week	CP - COMPOS
					Permit Req.								<=	30.0 MO AVG	<=	45.0 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00400	**pH**	1 - Effluent Gross	0	--	Sample						=	6.7			=	7.2	12 - SU	0	05/DW - 5 Days Every Week	GR - GRAB
					Permit Req.						>=	6.0 MINIMUM			<=	9.0 MAXIMUM	12 - SU		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00530	**Solids, total suspended**	1 - Effluent Gross	0	--	Sample								=	0.9	=	1.5	19 - mg/L	0	05/DW - 5 Days Every Week	CP - COMPOS
					Permit Req.								<=	30.0 MO AVG	<=	45.0 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00610	**Nitrogen, ammonia total [as N]**	1 - Effluent Gross	0	--	Sample								=	0.28	=	1.24	19 - mg/L	0	05/DW - 5 Days Every Week	CP - COMPOS
					Permit Req.									Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	--	Sample										=	3.74	19 - mg/L	0	03/30 - Three Per Month	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
50060	**Chlorine, total residual**	1 - Effluent Gross	0	--	Sample								=	0.03			19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.								<=	0.75 MO AVG			19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
74055	**Coliform, fecal general**	1 - Effluent Gross	0	--	Sample															
					Permit Req.										<=	400.0 DAILY MX	13 - #/100mL		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											9 - Conditional Monitoring - Not Required This Period				
82220	**Flow, total**	1 - Effluent Gross	0	--	Sample			=	287.22	80 - Mgal/mo								0	99/99 - Continuous	
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo									99/99 - Continuous	
					Value															

NODI

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

31 days of discharge. Zero days discharge combined with A01 and zero days discharge combined with C01. Coliform, fecal general not required to sample, since zero flow from A01 or C01 tanks during December.

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:16 (Time Zone: -06:00)

Report Last Signed By

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:18 (Time Zone: -06:00)

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	002 External Outfall	**Discharge:**	**002-0** MIXING CHMBR OVERFLOW TO ST. JOSEPH CRK		

Report Dates & Status

Monitoring Period:	**From 12/01/21 to 12/31/21**	**DMR Due Date:**	**01/25/22**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

W0430300002 ; NUMBER OF DAYS OF DISCHARGE:CS

Principal Executive Officer

First Name:	Amy	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Underwood				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration						# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00300	**Oxygen, dissolved [DO]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MN	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00310	**BOD, 5-day, 20 deg. C**	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	30.0 MO AVG	<=	45.0 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge		C - No Discharge				
00400	**pH**	1 - Effluent Gross	0	--	Sample															
					Permit Req.						>=	6.0 MINIMUM			<=	9.0 MAXIMUM	12 - SU		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI							C - No Discharge				C - No Discharge				
00530	**Solids, total suspended**	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	30.0 MO AVG	<=	45.0 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge		C - No Discharge				
00610	**Nitrogen, ammonia total [as N]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
50060	**Chlorine, total residual**	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	0.75 MO AVG			19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge						
74055	**Coliform, fecal general**	1 - Effluent Gross	0	--	Sample															
					Permit Req.										<=	400.0 DAILY MX	13 - #/100mL		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
82220	**Flow, total**	1 - Effluent Gross	0	--	Sample															
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo									DL/DS - Daily When Discharging	
					Value NODI				C - No Discharge											

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User: reeseberry

Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:01 (Time Zone: -06:00)
Report Last Signed By	
User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:18 (Time Zone: -06:00)

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	003 External Outfall	**Discharge:**	**003-0** EXCESS FLOW TO ST. JOSEPH CRK		

Report Dates & Status

Monitoring Period:	**From 12/01/21 to 12/31/21**	**DMR Due Date:**	**01/25/22**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

W0430300002 ; NUMBER OF DAYS OF DISCHARGE:CS

Principal Executive Officer

First Name:	Amy	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Underwood				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration						# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00300	**Oxygen, dissolved [DO]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MN	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00310	**BOD, 5-day, 20 deg. C**	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	30.0 MO AVG	<=	45.0 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge		C - No Discharge				
00400	**pH**	1 - Effluent Gross	0	--	Sample															
					Permit Req.						>=	6.0 MINIMUM			<=	9.0 MAXIMUM	12 - SU		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI							C - No Discharge				C - No Discharge				
00530	**Solids, total suspended**	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	30.0 MO AVG	<=	45.0 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge		C - No Discharge				
00610	**Nitrogen, ammonia total [as N]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
50060	**Chlorine, total residual**	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	0.75 MO AVG			19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge						
74055	**Coliform, fecal general**	1 - Effluent Gross	0	--	Sample															
					Permit Req.										<=	400.0 DAILY MX	13 - #/100mL		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
82220	**Flow, total**	1 - Effluent Gross	0	--	Sample															
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo									DL/DS - Daily When Discharging	
					Value NODI				C - No Discharge											

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User: reeseberry

Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:02 (Time Zone: -06:00)
Report Last Signed By	
User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:18 (Time Zone: -06:00)

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	A01 External Outfall	**Discharge:**	**A01-0** EXCESS FLOW FROM EXCESS FLOW CLARIFIERS		

Report Dates & Status

Monitoring Period:	**From 12/01/21 to 12/31/21**	**DMR Due Date:**	**01/25/22**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

W0430300002 ; NUMBER OF DAYS OF DISCHARGE:CS

Principal Executive Officer

First Name:	Amy	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Underwood				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00310	**BOD, 5-day, 20 deg. C**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00530	**Solids, total suspended**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00610	**Nitrogen, ammonia total [as N]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
82220	**Flow, total**	1 - Effluent Gross	0	--	Sample															
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo									DL/DS - Daily When Discharging	CN - CONTIN
					Value NODI				C - No Discharge											

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:02 (Time Zone: -06:00)

Report Last Signed By

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:18 (Time Zone: -06:00)

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	B01 External Outfall	**Discharge:**	**B01-0** INTERNAL MIXING CHMBR - E. BR. DUPAGE RVR		

Report Dates & Status

Monitoring Period:	**From 12/01/21 to 12/31/21**	**DMR Due Date:**	**01/25/22**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

W0430300002 ; DMF LOAD LIMITS DISPLAYED.

Principal Executive Officer

First Name:	Amy	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Underwood				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00011	**Temperature, water deg. fahrenheit**	1 - Effluent Gross	0	--	Sample										=	58.5	15 - deg F	0	01/30 - Monthly	GR - GRAB
					Permit Req.											Req Mon MO MAX	15 - deg F		01/30 - Monthly	GR - GRAB
					Value NODI															
00300	**Oxygen, dissolved [DO]**	1 - Effluent Gross	1	--	Sample						=	8.0	=	7.0	=	5.1	19 - mg/L	0	03/DW - 3 Days Every Week	GR - GRAB
					Permit Req.						>=	5.5 MO AV MN	>=	4.0 MN WK AV	>=	3.5 DAILY MN	19 - mg/L		02/DA - 2 Days Every Week	GR - GRAB
					Value NODI															
00400	**pH**	1 - Effluent Gross	0	--	Sample						=	6.7			=	7.2	12 - SU	0	05/DW - 5 Days Every Week	GR - GRAB
					Permit Req.						>=	6.0 MINIMUM			<=	9.0 MAXIMUM	12 - SU		02/DA - 2 Days Every Week	GR - GRAB
					Value NODI															
00410	**Alkalinity, total [as CaCO3]**	1 - Effluent Gross	0	--	Sample										=	192.0	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
00530	**Solids, total suspended**	1 - Effluent Gross	0	--	Sample	=	98.11	=	960.3	26 - lb/d			=	0.9	=	6.6	19 - mg/L	0	05/DW - 5 Days Every Week	CP - COMPOS
					Permit Req.	<=	2202.0 MO AVG	<=	4404.0 DAILY MX	26 - lb/d			<=	12.0 MO AVG	<=	24.0 DAILY MX	19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
00600	**Nitrogen, total [as N]**	1 - Effluent Gross	0	--	Sample										=	12.4	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
00610	**Nitrogen, ammonia total [as N]**	1 - Effluent Gross	11	--	Sample	=	28.1	=	141.38	26 - lb/d			=	0.28	=	1.24	19 - mg/L	0	05/DW - 5 Days Every Week	CP - COMPOS
					Permit Req.	<=	734.0 MO AVG	<=	1376.0 DAILY MX	26 - lb/d			<=	4.0 MO AVG	<=	7.5 DAILY MX	19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
00625	**Nitrogen, Kjeldahl, total [as N]**	1 - Effluent Gross	0	--	Sample										=	0.91	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
00630	**Nitrite + Nitrate total [as N]**	1 - Effluent Gross	0	--	Sample										=	11.5	19 - mg/L	0	01/30 - Monthly	CA - CALCTD
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CA - CALCTD
					Value NODI															
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	--	Sample										=	3.74	19 - mg/L	0	03/30 - Three Per Month	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
00666	**Phosphorus, dissolved**	1 - Effluent Gross	0	--	Sample										=	3.82	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
00940	**Chloride [as Cl]**	1 - Effluent Gross	0	--	Sample										=	154.0	19 - mg/L	0	01/30 - Monthly	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	GR - GRAB
					Value NODI															
50050	**Flow, in conduit or thru treatment plant**	1 - Effluent Gross	0	--	Sample	=	9.27	=	17.48	03 - MGD								0	99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD									99/99 - Continuous	
					Value NODI															

50060	**Chlorine, total residual**	1 - Effluent Gross	1	--	Sample										=	0.03	19 - mg/L	0	CL/OC - Chlorination/Occurances	GR - GRAB
					Permit Req.										<=	0.05 DAILY MX	19 - mg/L		CL/OC - Chlorination/Occurances	GR - GRAB
					Value NODI															
80082	**BOD, carbonaceous [5 day, 20 C]**	1 - Effluent Gross	0	--	Sample	=	89.26	=	408.1	26 - lb/d			=	1.0	=	2.8	19 - mg/L	0	04/07 - Four Per Week	CP - COMPOS
					Permit Req.	<=	1835.0 MO AVG	<=	3670.0 DAILY MX	26 - lb/d			<=	10.0 MO AVG	<=	20.0 DAILY MX	19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:17 (Time Zone: -06:00)

Report Last Signed By

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:18 (Time Zone: -06:00)

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	C01 External Outfall	**Discharge:**	**C01-0** EXCESS FLOW FROM CLARIFIER #1		

Report Dates & Status

Monitoring Period:	**From 12/01/21 to 12/31/21**	**DMR Due Date:**	**01/25/22**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

W0430300002 ; NUMBER OF DAYS OF DISCHARGE:CS

Principal Executive Officer

First Name:	Amy	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Underwood				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00310	**BOD, 5-day, 20 deg. C**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00530	**Solids, total suspended**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00610	**Nitrogen, ammonia total [as N]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
82220	**Flow, total**	1 - Effluent Gross	0	--	Sample															
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo									DL/DS - Daily When Discharging	CN - CONTIN
					Value NODI				C - No Discharge											

Submission Note

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Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:14 (Time Zone: -06:00)

Report Last Signed By

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:18 (Time Zone: -06:00)

DMR Copy of Record

Permit					
Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	INF Influent Structure	**Discharge:**	**INF-L** INFLUENT MONITORING		
Report Dates & Status					
Monitoring Period:	**From 12/01/21 to 12/31/21**	**DMR Due Date:**	**01/25/22**	**Status:**	**NetDMR Validated**
Considerations for Form Completion					
W0430300002					
Principal Executive Officer					
First Name:	Amy	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Underwood				
No Data Indicator (NODI)					
Form NODI:	--				

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration						# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00310	**BOD, 5-day, 20 deg. C**	G - Raw Sewage Influent	0	--	Sample								=	245.0			19 - mg/L	0	09/99 - See Permit	CP - COMPOS
					Permit Req.									Req Mon MO AVG			19 - mg/L		09/99 - See Permit	CP - COMPOS
					Value NODI															
00530	**Solids, total suspended**	G - Raw Sewage Influent	0	--	Sample								=	229.0			19 - mg/L	0	09/99 - See Permit	CP - COMPOS
					Permit Req.									Req Mon MO AVG			19 - mg/L		09/99 - See Permit	CP - COMPOS
					Value NODI															
00600	**Nitrogen, total [as N]**	G - Raw Sewage Influent	0	--	Sample										=	39.8	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
00665	**Phosphorus, total [as P]**	G - Raw Sewage Influent	0	--	Sample										=	7.64	19 - mg/L	0	03/30 - Three Per Month	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
50050	**Flow, in conduit or thru treatment plant**	G - Raw Sewage Influent	0	--	Sample	=	9.31	=	17.75	03 - MGD								0	99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD									99/99 - Continuous	
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:17 (Time Zone: -06:00)

Report Last Signed By

User:	reeseberry
Name:	Dorrance Berry
E-Mail:	rberry@dgsd.org
Date/Time:	2022-01-12 08:18 (Time Zone: -06:00)

DOWNERS GROVE SANITARY DISTRICT

M E M O

TO: Amy Underwood, General Manager

FROM: Jeff Barta, Maintenance Supervisor

DATE: January 12, 2022

SUBJECT: December 2021 Maintenance Report

Attached is a work order summary detailing equipment repair and preventive maintenance activities conducted by the maintenance/electrical department during December 2021.

Special projects in December included:

Belt Filter Press Building – Underground Natural Gas Line Leak

A natural gas leak was noticed between the Sand filter and Belt press buildings. Nicor Gas was out to assist with locating the leak. After Nicor isolated and pressure tested their gas line from the main to our meter, it was determined that our private line to the Belt press building was the cause of the leak. Fortunately, we had an underground gas shut off valve for this line and we were able to isolate it and keep the other natural gas supply lines throughout the WWTC in operation.

To restore the building heat, District staff installed a temporary, above ground 1" natural gas line from our WWTC gas meter to the Belt press building. This temporary 500' long poly-gas line and fittings was purchased from Porter Pipe at a total cost of $581.22. We are currently reviewing our options to replace this gas line which will likely occur in the spring after the ground thaws.

Digester 4 Mixing System – Gas Compressor Overhaul

The gas compressor on the mixing system for the digester typically has a two (2) year life cycle between overhauls. The existing compressor was due for this service.

Since it requires a crane to replace the compressor, which is mounted on the floating digester roof cover, we always keep a spare compressor in stock that has already been overhauled for this purpose. With having a "ready-to-go "compressor available, we reduce the down time on the digester mixing, and only need a crane for a single visit to remove the old and install the rebuilt compressor.

The compressor that was removed from service is then sent to a local compressor rebuilding company J.C. Cross to be rebuilt and returned for our future needs. The warranty on the rebuilt compressor starts when the compressor is installed. J.C. Cross includes the startup service with their overhaul and documents the startup date for the warranty to begin.

Our rebuilt compressor from stock has been installed and operating as expected. The cost for rebuilding the existing compressor has not yet been received. In 2019, the rebuild cost on our existing compressor was $5,500.00. The crane service from Stevenson Crane was $520.00. On a side note, the cost for a new compressor was also quoted in 2019 at $19,000.00.

Digester 4&5 Control Building – South Entry Door & Frame Replacement

The south entry door and frame was worn out and needed to be replaced. Proposals were received from three door replacement contractors for this project. Suburban Door & Lock provided the lowest proposal in the amount of $3,603.00.

The new door & frame was delivered in advance of the installation so it could be epoxy painted by District staff. After the door & frame were ready, Suburban Door & Lock removed the old, and installed the new door & frame.

Secondary Clarifier 7 – Gear Reducer Repair (Oil leak)

District staff removed the gear reducer from the clarifier, disassembled cleaned and inspected. The cause of the leak was the seal on the main vertical output shaft had failed. In addition to the oil seal failure, we also discovered that the gear reducer had severely worn bearings and shaft damage.

The damaged shafts were repaired, new bearings were installed, and the oil seal was replaced. This repair work, except for the shaft machining/repairs, was completed in house by District maintenance staff. After the repaired gear reducer was reassembled, Stevenson Crane assisted with lifting the gear reducer back into position on the clarifier.

The clarifier is back in operation and operating as expected. The total cost for this repair including the machining, bearings, oil seals, shaft sleeve, and the crane service from Motion Industries, McMaster Carr & Stevenson Crane was $2,447.74

2011 Ford F-250 4x4 – Flywheel Replacement

After the second starter replacement in a year, we discovered that there were teeth missing on the engine flywheel and it needed to be replaced. The flywheel itself is somewhat inexpensive, but the labor required to replace it was significant.

Since we didn't have proper equipment and the time to dedicate for this repair, we contacted Packey Webb Ford and A-Len Radiator & Automotive to get a quote to replace the flywheel. The quote from A-Len was the lowest and we gave them the authorization to proceed with the repair.

The flywheel has been replaced, and the truck is back in service. The total cost for this flywheel replacement was $1,219.17.

Equipment Procurement – New Gas-Powered Portable Welder

Our existing gas-powered portable welder is over 35 years old and has reached the end of its useful life. We budgeted to replace it this year and have purchased a new Miller gas-powered portable welder from Terrace Supply for $6,688.73. This is a traditional "stick type" arc welder with remote start/stop, and it has a built-in 120/240-volt generator. It can also perform MIG (wire feed) type welding with equipment accessories that can be added in the future. This is something that has been included in the FY22-23 budget requests.

Venard Lift Station – East Discharge Force Main Break

On 12-22-2021, a force main break occurred on the east force main. District staff assisted Uno Construction with locating the leak, isolating & draining the force main. The leak was repaired, and the force main was put back in operation. The total cost for this repair by Uno Construction was $7,403.54.

The west force main developed a leak & was also repaired on 01-06-22. Additional information on this will be provided in next month's report.

cc: WDVB, AES, PWC, KJR, RTJ, MJS, MGP

Work Order Summary

Work Order Completion Dates from 12/1/2021 to 12/30/2021

Work Assignment	Completion Date	Equipment	NOTATIONS
12 Month/10,000 Mile Synthetic Oil Change (2012 F-350) #307	01-Dec-21	2012 FORD F-350 LS	Change oil and filter. Use Mobil 1 full synthetic oil. Check air and cabin filters, replace if necessary. Rotate tires and check air pressure.
12 Month/10,000 Mile Synthetic Oil Change (2013 F-150) # 349 (Todd)		2013 FORD F-150 Reg Cab	32,809 - Change oil & filter. Use Mobil 1 full synthetic oil. Check air and cabin filters and replace if necessary. Rotate tires and check air pressure.
12 Month/10,000 Mile Synthetic Oil Change (2015 F-150) # 351 (Bob)		2015 Ford F-150 Reg Cab 4x2	58,150 - Change oil & Filter. Use Mobil 1 full synthetic oil. Check air and cabin filters and replace if necessary. Rotate tires and check air pressure.
Due for oil change. 38,551 Miles		2018 Ford F-150	Replace engine oil & filter. Use 100% synthetic oil. Also rotate tires.
REPLACE OIL ABSORBENT PADS IN GREASE CABINET		Administration Center	
Exercising of bar screen sluice gates 1 and 2		Bar Screen 1	
		Bar Screen 2	
Exercise valves at Belt Press Building		Belt Filter Press	
		Belt Filter Press Building	
		Belt Press Feed Sludge Pits	
		Belt Press Polymer Mix System	
		Belt Press Sludge Conveyor	
		Belt Press Sludge Feed Pump 1	
		Belt Press Washwater System	
Operate Relief Valves On Heat Exchangers And Boilers		Digester 1 Heat Exchanger	
		Digester 2 Heat Exchanger	
		Digester 3 Heat Exchanger	
		Digester 4 Heat Exchanger	
		Digester 5 Heat Exchanger	
		Excess Flow Pump Station	
Change Filters On Grit Blowers 1,2,3.		Grit Blower 1	
		Grit Blower 2	
		Grit Blower 3 Kaeser	
Exercising of plant water main valves		Yard Piping - City Water	
Due for Annual Inspection & P/M.	02-Dec-21	Grease Receiving Tank	Xylem Water Solutions performed the annual P/M. No problems found. the new chemical resistant power cords that were installed last year are holding up very well.
		Grease Receiving Tank -	

Work Assignment	Completion Date	Equipment	NOTATIONS
		West	
PLANT BIO FILTER MEDIA CHANGEOUT		WWTC Bio-Filter	Replace wood chip media in the odor control bio-filter.
Replace battery due to hard start.	03-Dec-21	2014 Ford F-250 Plow Truck	Replaced battery with new.
Change Pre-Filters Blowers 1 - 4.		Blower Bag Room	
Grease fittings on munters unit		Filter Building	
6 Month Oil Change On Bearings on Grit Pumps 1, 2, 3, & 4.		Grit Pump 1	
		Grit Pump 2	
		Grit Pump 3	
		Grit Pump 4	
Safety lane Vehicle 354	06-Dec-21	2014 Freightliner M2106 6 yd d	
12 Month/10,000 Mile Synthetic Oil Change (2014 Honda Civic) # 316 Nick		2014 Honda Civic CNG	Change oil and filter using Mobil 1 full synthetic oil. Check air and cabin filters. Rotate tires and check air pressure.
12 Month/10,000 Mile Synthetic Oil Change (2015 Ford Van #320 Ernie		2015 Ford Truck Transit Van	Change oil and filter using Mobil 1 full synthetic oil. Check air and cabin filters. Rotate tires and check air pressure.
5,355 Miles. Change oil and oil filter.		2020 F350 4x4	Changed oil and filter.
Monthly Fire Extinguishers Inspection		5006 Walnut Eqpmnt Strge Bldg	
		Administration Center	
		Bar Screen Building	
		Belt Filter Press Building	
Grease fittings on each moyno 1 and 2		Belt Press Sludge Feed Pump 1	
		Belt Press Sludge Feed Pump 2	
Monthly Fire Extinguishers Inspection		Bisulfite Building	
		Blower Building	
2000 Hour Grease of the UNISON BLOWER MOTOR		CHP Gas Cleaning System	
Monthly Fire Extinguishers Inspection		Digester 1 and 2 Control Building	
		Digester 3 Control Building	
		Digester 4 - 5 Control Building	
Monthly Liquid Status of Under Ground Diesel Tank		Emergency Gen Diesel Storage Tank	
Monthly Fire Extinguishers Inspection		Emergency Generator Building	
		Excess Flow Pump Station	
		Excess Flow Sludge Pump House	
		Filter Building	
		Grit Building	
		Hypochlorite Feed Building	

Work Assignment	Completion Date	Equipment	NOTATIONS
		Interm Clarifier Sludge Bldg	
Replace 4" discharge valve with new.		Intermediate Sludge Pump 2	Replaced 4" discharge valve with new.
Monthly Fire Extinguishers Inspection		Laboratory	
		Maintenance Services Building	
		Microstrainer Building	
		Operations Center	
		Raw Sewage Pump Station	
		System Garage	
Clean Pump Seal Water Filters At Lift Stations	07-Dec-21	Butterfield Pump 1	Replace all filters and flush all water lines.
		Butterfield Pump 2	
		Centex Pump 1	
		Centex Pump 2	
		Earlston Pump 1	
		Earlston Pump 2	
3 MONTH OIL CHANGE-GRIT BLOWER #3- KAESER		Grit Blower 3 Kaeser	Changed oil and replaced worn belts.
4 MONTH GREASING FITTINGS ON GRIT CONVEYORS		Grit Conveyor System	
Clean Pump Seal Water Filters At Lift Stations		Hobson Pump 1	Replace all filters and flush all water lines.
		Hobson Pump 2	
		Hobson Pump 3	
		Hobson Pump 4	
		Wroble Pump 1	
		Wroble Pump 2	
3 Months Inspection on Electric Carts and Front End Loader	08-Dec-21	2014 Club Car Carry-all #2	
		2016 Club Car Carryall 300	
		2019 Yamaha UMAX 2 AC (#3)	
Replace broken automatic air vents of heat exchanger.		Digester 5 Heat Exchanger	Replaced Auto vents with new and procured replacements for stock.
Exercise both 24" primary influent ratio valves		Tunnel From PS to Grit	
		Tunnel/Chan Primary Clarifiers	
6,456 Hours. Replace both throttle linkage rod ends with new due to wear	09-Dec-21	CHP Engine Genset #1	Replaced rod ends with new, filled with grease. Part number MW-M6Z.
Test for H2S at Unison Gas skid		CHP Gas Cleaning System	
2 Month grease of new WAS pump #2		Conc. Tank Thickener Pump 2	
Six Month Oil Change On Concentrators 1 & 2		Concentration Tank 1	

Work Assignment	Completion Date	Equipment	NOTATIONS
		Concentration Tank 2	
Auto fill Reducer valve not working properly, heater pump makes noise.		Digester 1 Heat Exchanger	Installed isolation valve on H.E. side of reducing valve. Replaced reducing valve with new. Inspected the coupling - ok & cleaned & lubricated pump and motor for sludge heater recirculation pump.
Greasing of Landia mixer grease fitting on actuator and threaded stem		Digester 1 Mixing Pump	
2000 Hour Grease of Plant Effluent Pumps		Plant Effluent Water Pump #2	
3 MONTH GREASE OF BFP MOYNO PUMPS	10-Dec-21	Belt Press Sludge Feed Pump 1	
		Belt Press Sludge Feed Pump 2	
Turn on and run Chlorine Contact Tank sweep arm		Chlorine Contact Tank	
Reroute boiler exhaust and intake pipes on North side of building.		Excess Flow Pump Station	Rerouted the intake and exhaust piping to avoid intake pipe freezing up in winter.
Exercising of Inf, Eff, Drain and fill valves at Filter Building		Filter 1	
		Filter 2	
		Filter 3	
		Filter 4	
		Filter 5	
		Filter 6	
3 Month Grease- Secondaries 1 & 2		Secondary Clarifier 1	
		Secondary Clarifier 2	
Check Sump Pumps at The WWTC and Administration Bldg.	13-Dec-21	Administration Center	
		Blower Building	
		Digester 1 and 2 Control Bldg	
		Digester 3 Control Building	
		Digester 4 - 5 Control Buildg	
Exercise Of EBARA and Excess Pumps		Excess Flow Pump 06	
		Excess Flow Pump 07	
		Excess Flow Pump 08	
		Excess Flow Pump 09	
		Excess Flow Pump 10	
		Excess Flow Pump 11	
		Excess Flow Pump 12	
Check Sump Pumps at The WWTC and Administration Bldg.		Excess Flow Pump Station	
		Excess Flow Sludge Pump House	
		Grit Building	
		Hypochlorite Feed Blg	
		Interm Clarifier Sludge	

Work Assignment	Completion Date	Equipment	NOTATIONS
		Bldg	
		Maintenance Services Building	
		Microstrainer Building	
		Operations Center	
		Raw Sewage Pump Station	
Six Month Oil Change Secondaries 6 - 7 - 8 - 9		Secondary Clarifier 6	
		Secondary Clarifier 7	
		Secondary Clarifier 8	
		Secondary Clarifier 9	
Check Sump Pumps at The WWTC and Administration Bldg.		Tunnel/Chan Aeration Tank 1-11	
3 month Greasing of 3 AUMA Actuators	14-Dec-21	Aeration Tank 10	
Procure supplies for oil changes on both engines.		CHP Engine Genset #1	Purchased oil filters, oil sample kits and oil for both engines.
		CHP Engine Genset #2	
3 month Greasing of 3 AUMA Actuators		Digester 1 Mixing Pump	
Replace Wiper Grit Conveyors 1-2		Grit Conveyor System	
Grease Pump Bearings on 1-6 RAS pumps		RAS Pump 1	
		RAS Pump 2	
		RAS Pump 3	
		RAS Pump 4	
		RAS Pump 5	
		RAS Pump 6	
Sprinkler head replacement in the basement for fire alarm system.	15-Dec-21	Maintenance Services Building	CMFP replaced the existing sprinkler heads in the basement that were over 40 years old.
Monthly Cross Collector Check		Primary Clarifier 3	
		Primary Clarifier 4	
		Primary Clarifier 5	
		Primary Clarifier 6	
		Primary Clarifier 7	
		Primary Clarifier 8	
		Primary Clarifier 9	
Repair leak from gear reducer.		Secondary Clarifier 7	Removed gear reducer and disassembled. Found bearings and shaft hub had failed. Had new hub fabricated, shafts repaired, and replaced all bearings and seals. Put back into service.
3 Month Oil Change Blower #3	16-Dec-21	Aeration Blower 03	
Replace UPS batteries for magnetic bearing controllers.		Aeration Blower ABS	Replaced all four batteries with new.
		Aeration Blower ABS #2	
Semi-Annual Oil Change Gear Reducer PEARTH Units #2		Digester 2 Mixing System	
500 Hour Oil Change on Pearth 4		Digester 4 Mixing System	
Grease Tracks, Check Lube Sites On Bar Screens #1 & #2	17-Dec-21	Bar Screen 1	

Work Assignment	Completion Date	Equipment	NOTATIONS
		Bar Screen 2	
		Bar Screen Rag Compactor	
Six Month Oil Change Secondaries 3 - 5	21-Dec-21	Secondary Clarifier 3	
		Secondary Clarifier 4	
		Secondary Clarifier 5	
Install temporary natural gas line to the belt press.		Yard Piping - Natural Gas	Purchase and install a temporary, above ground,1" gas line from the sand filter building to the belt press building.
Change oil and oil filter.	22-Dec-21	2017 Ford F-250	32,256 Miles. Change oil and oil filter. Truck needs new tires and may have one bad tire pressure monitor.
Repair leak on the East discharge force main.		Venard Discharge Force Main	Assist Uno Construction with locating the leak & draining the force main for the repair. The leak was located in the roadway, near the south most property line of the home at 3713 Venard Road. The leak repaired with a 10" x 12" long stainless steel repair
Qt. Valves and Gates Excercise	23-Dec-21	Excess Flow 003 Valves	
Replace birdcage due to inaccurate wet well readings.	27-Dec-21	Centex Lift Station	Replaced bird cage with new. Ordered replacement for stock.
EXERCISE SLUICE GATES-WITH DRILL		Channel Aeration Tank 8-11 ML	
		Intermediate Clarifier 2	
		Intermediate Clarifier 3	
		Secondary Clarifier 8	
		Secondary Clarifier 9	
Purchase new portable welder to replace obsolete welder.	28-Dec-21	2021 Miller Bobcat Gas Welder	Procured welder and required accessories. Set up new welder and prepared old welder for auction.
Replace failed strobes on front gate with new.	30-Dec-21	WWTC Main Gate	Procurred and replaced strobe lights with new.

DOWNERS GROVE SANITARY DISTRICT

M E M O

DATE: January 4, 2022

TO: Amy Underwood
General Manager

FROM: Robert Swirsky
Sewer System Maintenance Supervisor

RE: Monthly Report – December 2021

		Current	Year to Date
1.	JULIE Line Markings:		
	Received	548	12460
	In District	525	11827
	Marked	124	2266
	Man Hours	47	821
2.	Building Service:	Current	Year to Date
	a. BSSRAP TV Inspections	25	217
	b. Emergency BSSRAP Repairs	16	114
	c. Total BSSRAP Repairs	21	160
	d. I&I inspections	00	00
	e. I&I C.O. installation	00	01
	f. Replace broken cleanout caps	00	03
	g. OHSP TV Inspections	01	07
	h. Post Rodding TV	05	59
3.	Sewer backups:	Current	Year to Date
	a. Public sewer	02	11
	b. Private sewer	23	235
	c. Surcharged main	00	0
	d. Pump station	00	0
	Total	25	246

		Current	Year to Date
4.	Sewer Cleaning (DGSD personnel):	26,286	326,258 Ft.
	a. Sewer Cleaning (outside contractors):	345	690 Ft.
5.	Main Sewer Televising (DGSD personnel):	140	8,449 Ft.
	a. Sewer Televising (outside contractors):	0	69,264 Ft.
6.	LETS TV	1	2
7.	Manhole inspections	00	168

8. Sewer and manhole repairs and replacements by Uno Construction:
Repair force main FMV-BEND-005 to FMV-BEND-004

9. Miscellaneous: (sewer system personnel)

CC: WDVB, AES, PWC, KJR, RTJ, MJS, MGP

DOWNERS GROVE SANITARY DISTRICT
M E M O

DATE: January 11, 2022

TO: Amy R. Underwood
General Manager

FROM: Keith Shaffner
Sewer Construction Supervisor

RE: Monthly Report: Sewer Construction \ Code Enforcement – December 2021

1. Permits issued:	Current	Year to Date
a. Single family	3	59
b. Multiple family	0	2
c. Commercial	1	8
d. Repair	2	17
e. Disconnection	3	41
Total	9	127

2. Inspections made:	Current	Year to Date
a. Connections	3	75
b. Finals	9	45
c. Repairs	2	22
d. Disconnects	5	50
e. Groundwork	0	3
f. Walk-Thru	0	2
g. Pre-connections	0	4
h. Overhead Sewer Program	0	5
i. Code Enforcement	0	6
j. Lateral testing	5	64
Total	24	276

3. New Sewer Extension Construction:

None

4. New Sewer Extension Testing - air, deflection, manhole, and televising:

None

5. Code Enforcement:

None

6. Plan & Permit Reviews:

   a. 5437 Brookbank – Single Family Home Review
   b. 4829 Lee – Single Family Home Review
   c. 4524 Sterling – Single Family Home Review
   d. 6031 Margo – Sanitary Family Home Review
   e. 4512 Statton – Single Family Home Review
   f. 1420 Ogden – Commercial Review
   g. 128 Maple – Single Family Home Review
   h. 5821 Lyman – Single Family Home Review
   i. 4225 Forest – Sanitary Service Repair Permit
   j. 445 Austin – Sanitary Service Repair Permit

7. Building Sanitary Service Access Agreements:

   a. 4524 Sterling – Downers Grove
   b. 5437 Brookbank - Downers Grove

8. Illinois EPA Permits:

   a. 60th Street - Sanitary main extension for two single family homes

9. Waste Hauling Permits Issued:

   None

10. Miscellaneous:

    a. Covid-19 pandemic - The Code Enforcement Department has continued to function at a high level of service. Inspector Danny Jasso and Oscar Avila have been working in the field using safe social distancing and personal protective equipment as necessary to complete their inspections.

CC: WDVB, AES, PWC, KJR, RTJ, MJS, RPS & MGP

Permits Issued: DECEMBER 2021

YEAR	PERMIT #	ADDRESS	STREET	CITY	ISSUE	TYPE	TAP FEE	INSP FEE
2021	121	4524	STERLING	DG	12/1/2021	SF-RB		$230.00
2021	119	5437	BROOKBANK	DG	12/3/2021	SF-RB		$230.00
2021	123	4512	STATTON	DG	12/3/2021	SF-RB		$230.00
2021	125	1420	OGDEN	DG	12/15/2021	COM		$220.00
2021	128	4225	FOREST	DG	12/3/2021	REPAIR		
2021	129	445	AUSTIN	DG	12/9/2021	REPAIR		
2021	122	4512	STATTON	DG	12/1/2021	DISCON		
2021	127	5821	LYMAN	DG	12/28/2021	DISCON		
2021	132	1310	GILBERT	DG	12/30/2021	DISCON		
					TOTAL:			$910.00

Permit Type Index: SF=Single Family, RB=Rebuild, SC=Septic Conversion, ADD=Addition, Discon=Disconnect for Demolition, Comm=Commercial, MF=Multiple Family

Permit Final Inspections: DECEMBER 2021

YEAR	PERMIT #	ADDRESS	STREET	CITY	FINAL
2021	22	1815	MAPLE	DG	12/1/2021
2020	75	4508	WILSON	DG	12/1/2021
2020	89	4340	ELM	DG	12/2/2021
2021	52	426	SHERMAN	DG	12/7/2021
2021	47	5256	BENTON	DG	12/8/2021
2021	18	1220	PRAIRIE	DG	12/8/2021
2020	28	4724	MIDDAUGH	DG	12/8/2021
2021	24	4743	OAKWOOD	DG	12/15/2021
2021	40	1111	OGDEN	DG	12/21/2021

Progress Report

To: Amy Underwood, General Manager
From: Reese Berry, Laboratory Supervisor
Date: January 11, 2022
Re: December 2021 Laboratory Report

We had zero excess events in December 2021. We had zero permit excursions in December.

Surcharge:

We completed the surcharge sampling for 2021 in December. We ended up sampling 46 locations for the year. Due to Covid19 staffing levels, we did not perform sampling in 2020, so we took this year to play catch up with our sampling schedule. We are in a good position heading into 2022, but still have some locations we need to fit in to be completely caught up with the pre-pandemic sampling schedule. I have confidence we will achieve this in 2022.

Biosolids:

All data has been collected from the class A biosolids program for the 2021 calendar year. All results were well under permitted levels to maintain a class A biosolids program. We will be reporting the annual data early in 2022 to USEPA and IEPA.

Pretreatment:

We reissued 2 permits in December to MarCor and Rexnord. Rexnord requested a slight change in their permit, which aligns with pretreatment standards for their current operation.

Annual inspections were performed, for permit holders, during December. Nothing of concern was observed or needing attention while touring facilities. Each location is in compliance with their permits.

Staff Activities:

Reese presented information on how we will achieve upcoming NPDES permit requirements for Ultra Low Chlorine analysis to a group of peers through DRSCW zoom conference call.

Reese participated in a zoom meeting with IAWA Pretreatment sub committee for pretreatment updates related to USEPA audits and what was expected from USEPA Region V.

C: WDVB, AES, PWC, KJR, RTJ, MJS, MGP

To: Amy Underwood, General Manager
From: Alex Bielawa, Staff Engineer
Re: Engineering Report for the Month December, 2021
Date: January 11, 2022

I. Planning Projects & Studies

A. Flow Monitoring

Cycle F data collection is ongoing. Yearly Infiltration and Inflow (I/I) numbers are provided in the Sewer System Maintenance Report.

B. Outfall Sewer Study

Baxter & Woodman has completed the wetland delineation for the portion of the outfall sewer that was not part of the Outfall Sewer Sag project. Please see the attached Baxter & Woodman Client Status Report for more information.

C. Downtown Downers Grove Modeling

Baxter & Woodman has submitted preliminary modeling results after updating the downtown sewer system model. Staff is currently reviewing these results. An update was needed to determine if there was adequate downstream capacity for a new Village Hall, Police Department and apartment complex.

D. Butterfield Lift Station Replacement

I have been working on a study to replace our Butterfield Lift Station. A memo of the study is expected to be completed in the spring.

E. Budget Preparation

I have been working with staff on numerous budget items for the five-year plan. Some of the key items are:

- Comparison of replacing our current OSEC hypochlorite generation unit to receiving bulk hypochlorite.
- Potential replacement of Blower #4 to help with our biological phosphorus removal operation.
- Potential replacement of our belt filter press to better dewater the co-digested sludge.

II. Design Projects

A. Centex Lift Station Replacement

The Contractor is in the processing of preparing shop drawings for review.

B. Outfall 001 Sanitary Sewer Repair

DuPage County has approved the revised plans and specifications. The project will be advertised soon. The timeline of bidding this project will be weather permitting as we currently cannot get back to site for a pre-bid meeting due to the snow and ground conditions. Please see the Baxter & Woodman Client Status Report for more information.

C. Curtiss Street Sewer Lining

Baxter & Woodman has completed the wetland delineation for the Curtiss St. lining project. Additionally, the District has authorized Baxter & Woodman to begin work on the plans and specifications for the project. Please see the Baxter & Woodman Client Status Report for more information.

D. Administration Building Improvements

A site visit will be held in mid to late January to verify improvements to the Admin Center.

III. Construction Projects

A. 1K-028 Flow Basin Rehabilitation – Phase 3

Performance Construction & Engineering did not submit a payment application this month.

A	Original Contract Sum	A		$698,713.00
B	Net Change by Change Orders to Date	B	+	$39,389.90
C	Contract Sum to Date	A+B = C		$738,102.90

D	Total Completed and Stored to Date	D		$738,102.90
E	Retainage	E	-	$14,762.06
F	Total Earned Less Retainage	D-E= F		$723,340.84

G	Less Previous Certificates for Payment	Previous Payments	-	$723,340.84
H	**Current Payment Due**	**F-G= H**		**$0.00**

The remaining restorations will be complete in Spring 2022.

C: BOT, BOLI, MGP

Downers Grove Sanitary District

BAXTER & WOODMAN Consulting Engineers

Client Manager:

Derek Wold
dwold@baxterwoodman.com
815-444-3335

Project Status Report Issued On: 12/23/2021

Project Title/Job	Project Manager	Completion Date	Tasks Completed This Period	Tasks Pending This Period	Items Waiting On Client	Status Date
Flow Monitoring Job Number: [050739.90]	Shane Firsching 815-444-3395 sfirsching@baxterwoodman.com	12/30/2019	None.	Assist District with analysis.	None	12/16/2021
Sewer Modeling (Hobson PS, downtown Downers Grove and Westmont) Job Number: [071129.30]	Shane Firsching 815-444-3395 sfirsching@baxterwoodman.com	7/1/2008	Prepare Downtown Downers Grove (Gilbert TS) Model updates for 2021 data.	Update Downtown Downers Grove (Gilbert TS) Model for 2021 data. Provide Memo of model results. Meet with District.	None.	12/16/2021
Nutrient Study RAS Denit Job Number: [120501.33]	Derek Wold 815-444-3335 dwold@baxterwoodman.com	12/31/2020	Met with Alex and discussed BNR scenarios.	Evaluation of scenarios as requested by District. Discuss KWRD presentation.	Results after reinstating ATs 1-3.	12/14/2021
1K-028 Flow Basin Rehabilitation Construction Services Job Number: [150980.62]	Reggie Jansen 815-444-3391 rjansen@baxterwoodman.com	4/30/2022	Assist Project Closeout	None		12/15/2021
Outfall Sewer Study Job Number: [180237.30]	Shane Firsching 815-444-3395 sfirsching@baxterwoodman.com	5/25/2022	None.	None.	Direction on further work.	12/16/2021
Outfall Sewer Sag Repair Job Number: [180237.40]	Shane Firsching 815-444-3395 sfirsching@baxterwoodman.com	12/31/2019	Obtained DuPage County Permit Certification.	Advertise project. Assist bidders. Attend Pre-Bid Conference. Prepare Addendum #1. Attend Bid Opening. Prepare Award Recommendation Letter.	Discuss bidding schedule.	12/16/2021

Project Title/Job	Project Manager	Completion Date	Tasks Completed This Period	Tasks Pending This Period	Items Waiting On Client	Status Date
Centex PS Replacement - CS Job Number: [181059.60]	Reggie Jansen 815-444-3391 rjansen@baxterwoodman.com	8/1/2022	Progress payment for ongoing construction administration tasks and submittal review	Submittal Review, Ongoing GCA/RPR Tasks. Waiting for panel submittal and credit.		11/29/2021
Sludge Storage Building Job Number: [200381.40]	Chuck Brunner 815-444-3210 cbrunner@baxterwoodman.com	4/1/2021	None	None	Project construction postponed. Pending client review comments on preliminary design and determination of acceptable location for contractor material storage and staging area.	12/16/2021
2021 Miscellaneous Engineering Services Job Number: [210020.00]	Derek Wold 815-444-3335 dwold@baxterwoodman.com	12/31/2021	Reviewed blower cable sizing, met with Alex and assisted with Butterfield PS, aeration calcs, BSSRAP contract, OSEC replacement, and Venard ComED transformer.	Followup on meeting items and other assistance as requested. Downtown Sewer model update by December.	None.	12/14/2021
Curtiss Street CIPP Lining Job Number: [211126.40]	Reggie Jansen 815-444-3391 rjansen@baxterwoodman.com	5/30/2022	Project Management, Detailed Design, Permitting. Obtained approval from Village of Downers Grove.	Continue to finalize bidding documents.		12/15/2021

Downers Grove Sanitary District
I&I Removal Target Area
1K-028 Parcel Status

STATUS OF 1K-028 INSPECTIONS AND AGREEMENT ACQUISITIONS

Category	Inspections Scheduled	Inspections Completed	Application Received	Agreements Signed	Cleanout Installed	Service Rehab Done	**Totals**	**Total as Percentage**
1A	Y	Y	N	Y	Y	N/A	19	8%
1B	Y	Y	N	N	N	N/A	1	0%
2A	Y	Y	Y	Y	Y	N	82	36%
2B	Y	Y	Y	Y	Y	N	17	7%
2D	Y	Y	Y	N	N	N	3	1%
3A	Y	Y	Y	Y	N	N	4	2%
4	Y	Y	N	N	N	N	38	17%
4A	N	N	N	N	N/A	N	4	2%
5	Y	N	N	N	N	N	0	0%
5A	Y	Y	N	N	N	N	11	5%
5AX	Y	Y	N	N	N	N	0	0%
5B	Y	N	N	N	N	N	12	5%
5BX	Y	N	N	N	N	N	1	0%
0	N	N	N	N	N	N	30	13%
X	-	-	-	-	-	-	5	2%
5X	-	-	-	-	-	-	1	0%
							228	100%

11% Complete

Category Description:

1A - PVC service with cleanout(may need to be sealed at the main)
1B - All PVC no Cleanout
2A - Cleanout installed, ready for rehab
2B - Ready for rehab
2D - BSSRAP/OHSP TV done
3A - Released to contractor for cleanout installation
4 - Inspection completed (Program application needed)
4A - Has an existing cleanout
5 - Inspections scheduled
5A - Inspection done - BSSRAP needed (qualifying defects or obstructions seen during TV)
5AX - Violation, BSSRAP needed
5B - Unable to TV
5BX - Unable to TV Violation
0 - Inspection Needed
X - Demolished
5X - Inspection done - Violation not corrected

2015 Basin I&I Ranking = 1
2016 Basin I&I Ranking = 27
2018 Basin I&I Ranking = 6
2019 Basin I&I Ranking = 20
2020 Basin I&I Ranking = 15

Combined pit violations found and corrected to date - 0
Storm pit violations found and corrected to date - 2

1/4/2022

DOWNERS GROVE SANITARY DISTRICT CASH BALANCES AND INVESTMENT SCHEDULE

DATE: 12/31/2021

CASH BALANCES

ACCOUNT NAME	ACCOUNT NUMBER	BALANCE PER BANK STATEMENT	PREVIOUS MONTH TOTAL BALANCE PER BANK STATEMENTS	PREVIOUS MONTH MONTHLY EARNINGS CREDIT	PREVIOUS MONTH EARNINGS CREDIT PERCENTAGE
DEPOSIT	XXXXXXXXX1116	$1,881,344.08			
DISBURSEMENT	XXXXXXXXX1111	387,956.49			
FLEXIBLE BENEFITS	XXXXXXXXX6025	3,274.54			
PAYROLL	XXXXXXXXX1117	150,856.87			
PETTY CASH	XXXXXXXXX1112	3,081.79			
USER REFUNDS	XXXXXXXXX1114	5,612.46			
TOTAL - CASH AT BANK		$2,432,126.23	$2,085,695.94	$241.44	0.0116%

INVESTMENTS

TYPE	FINANCIAL INSTITUTION	TERM	MATURITY	AMOUNT	ANNUAL INT. RATE	GENERAL CORPORATE FUND (01)	IMPROVEMENT FUND (02)	CONSTRUCTION FUND (03)	PUBLIC BENEFIT FUND (05)	SEWER EXTENSION FUND (71)	INTEREST EARNED AT MATURITY
CD	FIRST MIDWEST BANK	13 MOS	4/7/2022	$250,000.00	0.150%	$250,000.00					$406.25
CD	ROYAL SAVINGS BANK	13 MOS	8/2/2022	$250,000.00	0.250%	$250,000.00					$677.08
TOTAL CDs				$500,000.00	0.217%	$500,000.00	$0.00	$0.00	$0.00	$0.00	$1,083.33

TYPE	FINANCIAL INSTITUTION	TERM	LAST ACTION DATE	AMOUNT*	CURRENT RATE OF RETURN						ESTIMATED ANNUAL RETURN
MM	AXOS BANK	ONGOING	10/30/2020	$249,633.76	0.200%	$249,633.76					$499.27
MM	BANKFINANCIAL	ONGOING	3/13/2013	$250,086.77	0.150%	$250,086.77					$375.13
MM	ONE WEST BANK	ONGOING	11/9/2016	$250,000.00	0.150%	$250,000.00					$375.00
MM	EVERGREEN BANK GROUP	ONGOING	2/23/2021	$250,000.00	0.200%	$250,000.00					$0.00
MM	LIMESTONE BANK	ONGOING	1/25/2021	$250,583.07	0.260%	$250,583.07					$651.52
MM	LISLE SAVINGS BANK	ONGOING	11/10/2020	$250,009.92	0.300%	$250,009.92					$750.03
MM	LUANA SAVINGS BANK	ONGOING	10/29/2020	$250,119.70	0.600%	$250,119.70					$1,500.72
MM	ROYAL SAVINGS BANK	ONGOING	12/4/2012	$154.48	0.000%	$154.48					$0.00
MM	STEARNS BANK	ONGOING	9/1/2015	$250,000.00	0.500%	$250,000.00					$1,250.00
MM	TRISTATE CAPITAL BANK	ONGOING	4/16/2021	$250,011.91	0.150%			$250,011.91			$375.02
MM	WEST SUBURBAN BANK	ONGOING	11/20/2012	$5,144.09	0.000%			$5,144.09			$0.00
TOTAL MM ACCOUNTS				$2,255,743.70	0.256%	$2,000,587.70	$0.00	$255,156.00	$0.00	$0.00	$5,776.68
ILLINOIS FUNDS - MONEY MARKET				$2,453,659.50	0.056%	$1,033,619.51	$862,829.78	$557,210.21	$0.00	$0.00	$1,374.05
TOTAL - ALL INVESTMENTS				$5,209,403.20	0.158%	$3,534,207.21	$862,829.78	$812,366.21	$0.00	$0.00	$8,234.06

TOTAL CASH AND INVESTMENTS $7,641,529.43

*INVESTMENT ACCOUNT BALANCES ARE UPDATED QUARTERLY FOR THESE MONEY MARKET ACCOUNTS TO REFLECT NOMINAL INTEREST AMOUNTS EARNED EACH MONTH AND POSTED DIRECTLY TO THE INVESTMENT.

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

MEMORANDUM

To: Board of Trustees
From: Amy R. Underwood, General Manager
Date: January 14, 2022
Subject: Treasurer's Report for December 2021

Attached please find the subject report that tracks income and expenses through the first eight months of Fiscal Year 21-22.

Totals of expenses and income are shown on the following table:

Year-to-date	Income	Expenses
General Fund	$ 7,276,931.23 (page 1)	$ 6,281,710.39 (page 6)
Improvement Fund	$ 17,068.10 (page 7)	$ 102,965.10 (page 7)
Construction Fund	$ 49,684.80 (page 8)	$ 14,403.64 (page 9)
Public Benefit Fund	$ 13.19 (page 10)	$ 0.00 (page 10)
TOTAL	$ 7,343,697.32	$ 6,399,079.13

Please note that the District received $9,800 for a vehicle sale on August 20, 2021. This revenue, which was being held in Clearing, has been applied to Fund 01, 12.C226 in the attached Treasurer's Report, to partially offset new vehicle expenses which were incurred in December.

C: BOLI, MGP

Fund number & Description	Ending Fund Balance
Fund 01 : GENERAL FUND	$5,211,621.43
Fund 02 : IMPROVEMENT FUND	$1,034,346.92
Fund 03 : CONSTRUCTION FUND	$1,300,325.36
Fund 05 : PUBLIC BENEFIT FUND	$37,817.83
Recap Totals	$7,584,111.54

TREASURER'S REPORT

DATE 01/10/22 MONTH ENDED 12/31/21 PAGE 1

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
DEPT 05	REVENUES							
3000	PROPERTY TAXES	5,158.40-	0	1,301,387.92-	1,291,800-	9,587.92-	.7	1,291,800-
3001	USER RECEIPTS	329,070.68-	305,120-	2,512,627.54-	2,377,508-	135,119.54-	5.7	3,470,300-
3002	SURCHARGES	23,102.74-	27,036-	243,411.94-	210,668-	32,743.94-	15.5	307,500-
3004	PLAN REVIEW FEES	.00	0	1,969.22-	375-	1,594.22-	425.1	500-
3005	CONSTRUCTION INSPECTION FEES	547.50-	0	547.50-	360-	187.50-	52.1	500-
3006	PERMIT INSPECTION FEES	910.00-	1,700-	11,844.00-	13,600-	1,756.00	12.9-	20,000-
3007	INTEREST ON INVESTMENTS	346.13-	1,500-	4,510.23-	12,000-	7,489.77	62.4-	18,000-
3013	SAMPLING AND MONITORING	7,757.73-	6,250-	73,536.63-	50,000-	23,536.63-	47.1	75,000-
3014	REPLACEMENT TAXES	7,901.58-	5,100-	103,107.35-	46,200-	56,907.35-	123.2	75,000-
3015	MISCELLANEOUS INCOME	2.84-	833-	5,953.52-	6,664-	710.48	10.7-	10,000-
3021	TELEVISION INSPECTION	.00	0	.00	150-	150.00	100.0-	150-
3023	PROPERTY LEASE PAYMENTS	3,016.46-	2,917-	23,558.38-	23,336-	222.38-	1.0	35,000-
3024	MONTHLY SERVICE FEES	359,158.09-	363,298-	2,774,578.38-	2,830,840-	56,261.62	2.0-	4,132,000-
3027	GREASE WASTE	17,338.10-	18,350-	139,890.40-	146,800-	6,909.60	4.7-	220,000-
3040	RENEWABLE ENERGY CREDITS	.00	0	.00	1,500-	1,500.00	100.0-	3,000-
3094	GRANTS AND INCENTIVES	.00	0	80,008.22-	0	80,008.22-	.0	0
	DEPT 05 TOTALS	754,310.25-	732,104-	7,276,931.23-	7,011,801-	265,130.23-	3.8	9,658,750-
	FUND REVENUE TOTAL	754,310.25-	732,104-	7,276,931.23-	7,011,801-	265,130.23-	3.8	9,658,750-
DEPT 11	O & M EXPENSES - ADMINISTRATION							
SECT A	SALARIES AND WAGES							
A001	TRUSTEES	.00	0	13,500.00	13,500	.00	.0	18,000
A002	BOLI	.00	0	.00	675	675.00-	100.0-	900
A003	GENERAL MANAGEMENT	24,233.21	34,612	168,000.24	207,649	39,648.76-	19.1-	296,500
A004	FINANCIAL RECORDS	16,576.42	23,682	142,405.12	145,116	2,710.88-	1.9-	201,550
A005	ADMINISTRATIVE RECORDS	2,086.73	2,891	19,655.42	17,713	1,942.42	11.0	24,600
A006	ENGINEERING	600.53	693	2,899.89	4,248	1,348.11-	31.7-	5,900
A007	CODE ENFORCEMENT	27,694.34	43,352	224,843.40	265,644	40,800.60-	15.4-	368,950
A008	SAFETY ACTIVITIES	2,562.44	4,682	24,342.28	28,692	4,349.72-	15.2-	39,850
A030	BUILDING AND GROUNDS	.00	635	1,020.91	3,889	2,868.09-	73.8-	5,400
A085	INCENTIVE	.00	0	1,825.00	2,800	975.00-	34.8-	2,800
A086	VACATION BUYOUT	242.00	0	5,650.02	12,700	7,049.98-	55.5-	12,700
A090	WORK FROM HOME REIMBURSEMENT ALLOWANCE	350.00	535	2,925.00	3,276	351.00-	10.7-	4,550
	SECT A TOTALS	74,345.67	111,082	607,067.28	705,902	98,834.72-	14.0-	981,700
SECT B	OPERATIONS AND MAINTENANCE							
B100	ELECTRICITY	1,341.05	350	7,160.78	3,300	3,860.78	117.0	4,450
B101	NATURAL GAS	109.63	300	497.34	1,750	1,252.66-	71.6-	3,000
B102	WATER, GARBAGE AND OTHER UTILITIES	.00	0	679.48	860	180.52-	21.0-	1,250
B110	BANK CHARGES	2,224.21	1,600	14,702.42	12,800	1,902.42	14.9	19,000
B112	COMMUNICATION	2,521.14	2,000	17,791.62	16,000	1,791.62	11.2	24,000
B113	EMERGENCY/SAFETY EQUIPMENT	5,211.32	1,800	10,904.85	19,400	8,495.15-	43.8-	29,000
B115	EQUIPMENT/EQUIPMENT REPAIR	11,928.26	10,300	49,776.48	101,200	51,423.52-	50.8-	142,000

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
B116	SUPPLIES	880.55	625	3,107.26	5,000	1,892.74-	37.9-	7,500
B117	EMPLOYEE/DUTY COSTS	1,362.89	1,400	4,056.13	11,200	7,143.87-	63.8-	16,750
B118	BUILDING AND GROUNDS	3,192.36	10,000	36,829.06	140,000	103,170.94-	73.7-	166,000
B119	POSTAGE	9.04	650	2,207.17	5,400	3,192.83-	59.1-	8,000
B120	PRINTING/PHOTOGRAPHY	.00	300	6,639.14	11,300	4,660.86-	41.3-	12,500
B121	USER BILLING MATERIALS	6,064.91	6,250	46,225.28	50,000	3,774.72-	7.6-	75,000
B124	CONTRACT SERVICES	4,226.23	8,875	32,729.55	71,000	38,270.45-	53.9-	106,500
B137	MEMBERSHIPS/SUBSCRIPTIONS	.00	0	6,334.88	7,720	1,385.12-	17.9-	9,500
	SECT B TOTALS	39,071.59	44,450	239,641.44	456,930	217,288.56-	47.6-	624,450
	SECT C VEHICLES							
C222	GAS/FUEL	92.20	175	377.13	975	597.87-	61.3-	1,500
C225	OPERATION/REPAIR	53.45	0	1,045.84	1,950	904.16-	46.4-	2,600
C226	VEHICLE PURCHASES	.00	0	.00	17,500	17,500.00-	100.0-	17,500
	SECT C TOTALS	145.65	175	1,422.97	20,425	19,002.03-	93.0-	21,600
	DEPT 11 TOTALS	113,562.91	155,707	848,131.69	1,183,257	335,125.31-	28.3-	1,627,750
	DEPT 12 O & M EXPENSES - WWTC							
	SECT A SALARIES AND WAGES							
A006	ENGINEERING	3,667.22	4,888	35,426.04	29,952	5,474.04	18.3	41,600
A009	OPERATIONS MANAGEMENT	8,750.72	11,721	66,130.05	71,820	5,689.95-	7.9-	99,750
A010	MAINTENANCE - BUDGET	.00	68,788	.00	420,959	38,570.91-	9.2-	591,900
A011	MAINTENANCE - WWTC	35,204.33	0	275,869.47	0	.00	.0	0
A012	MAINTENANCE - VEHICLES	.00	0	241.74	0	.00	.0	0
A013	MAINTENANCE - ENERGY RECOVERY	.00	0	1,818.29	0	.00	.0	0
A014	MAINTENANCE - ELECTRICAL	10,792.20	0	104,458.59	0	.00	.0	0
A020	WWTC - BUDGET	.00	66,905	.00	409,968	1,237.96-	.3-	569,400
A021	WWTC - OPERATIONS	36,066.65	0	270,450.27	0	.00	.0	0
A022	WWTC - SLUDGE HANDLING	10,894.44	0	132,937.19	0	.00	.0	0
A023	WWTC - ENERGY RECOVERY	274.40	0	5,342.58	0	.00	.0	0
A030	BUILDING AND GROUNDS	6,662.28	13,178	64,647.91	80,748	16,100.09-	19.9-	112,150
A085	INCENTIVE	.00	0	1,600.00	3,400	1,800.00-	52.9-	3,400
A086	VACATION BUYOUT	2,796.80	0	4,870.84	24,850	19,979.16-	80.4-	24,850
A090	WORK FROM HOME REIMBURSEMENT ALLOWANCE	.00	76	50.00	468	418.00-	89.3-	650
	SECT A TOTALS	115,109.04	165,556	963,842.97	1,042,165	78,322.03-	7.5-	1,443,700
	SECT B OPERATIONS AND MAINTENANCE							
B100	ELECTRICITY	2,664.69	7,000	41,010.71	63,000	21,989.29-	34.9-	93,000
B101	NATURAL GAS	593.88	1,300	3,101.23	4,700	1,598.77-	34.0-	10,000
B102	WATER, GARBAGE AND OTHER UTILITIES	436.97	1,200	19,373.99	23,500	4,126.01-	17.6-	35,000
B103	ODOR CONTROL	.00	200	1,285.00	2,100	815.00-	38.8-	3,000
B104	FUEL - GENERATORS	.00	0	.00	10,500	10,500.00-	100.0-	14,000
B112	COMMUNICATION	855.26	1,850	11,938.22	14,800	2,861.78-	19.3-	22,000
B113	EMERGENCY/SAFETY EQUIPMENT	4,248.33	2,000	14,254.75	16,000	1,745.25-	10.9-	23,000

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
B116	SUPPLIES	2,113.89	2,600	17,090.23	20,900	3,809.77-	18.2-	31,300
B117	EMPLOYEE/DUTY COSTS	3,145.99	2,100	9,680.42	18,300	8,619.58-	47.1-	26,000
B124	CONTRACT SERVICES	.00	0	216,110.00	216,100	10.00	.0	216,100
B130	NPDES PERMIT FEES	.00	0	53,000.00	53,000	.00	.0	53,000
B131	SLUDGE HAULING/DISPOSAL SERVICES	34,524.00	0	34,524.00	40,000	5,476.00-	13.7-	80,000
B400	CHEMICALS - BUDGET	.00	10,850	.00	86,850	4,446.89	5.1	130,250
B401	CHEMICALS - DISINFECTION	.00	0	24,343.28	0	.00	.0	0
B402	CHEMICALS - SLUDGE DEWATERING	2,515.14	0	41,554.94	0	.00	.0	0
B403	CHEMICALS - TERTIARY TREATMENT	.00	0	4,222.00	0	.00	.0	0
B404	CHEMICALS - OTHER	750.00	0	21,176.67	0	.00	.0	0
B501	EQPT/EQPT REPAIR - BIOSOLIDS AGING & DISPOS	119.21	1,875	197,829.47	237,500	39,670.53-	16.7-	245,628
B502	EQPT/EQPT REPAIR - DISINFECTION	87.00	11,650	15,642.31	30,900	15,257.69-	49.4-	34,859
B503	EQPT/EQPT REPAIR - EXCESS FLOW	.00	900	3,035.62	27,200	24,164.38-	88.8-	38,109
B504	EQPT/EQPT REPAIR - GRIT REMOVAL	.00	21,400	7,310.46	31,400	24,089.54-	76.7-	37,109
B505	EQPT/EQPT REPAIR - INFLUENT PUMPING	90.72	2,150	13,667.73	36,950	23,282.27-	63.0-	45,577
B506	EQPT/EQPT REPAIR - PRIMARY TREATMENT	2,388.53	2,210	27,738.08	42,680	14,941.92-	35.0-	51,523
B507	EQPT/EQPT REPAIR - SECONDARY TREATMENT	2,566.67	17,740	69,683.81	121,920	52,236.19-	42.8-	147,877
B508	EQPT/EQPT REPAIR - SLUDGE CONCENTRATION	.00	530	1,082.50	4,240	3,157.50-	74.5-	6,365
B509	EQPT/EQPT REPAIR - SLUDGE DEWATERING	2,530.91	1,945	17,806.77	15,560	2,246.77	14.4	23,340
B510	EQPT/EQPT REPAIR - SLUDGE DIGESTION	625.00	3,625	59,650.34	80,000	20,349.66-	25.4-	94,497
B511	EQPT/EQPT REPAIR - TERTIARY TREATMENT	460.00	1,326	7,949.16	18,108	10,158.84-	56.1-	28,414
B512	EQPT/EQPT REPAIR - WWTC GENERAL	1,984.69	2,785	18,414.63	34,780	16,365.37-	47.1-	45,918
B513	EQPT/EQPT REPAIR - WWTC UTILITIES	6,751.68	14,300	240,571.95	237,900	2,671.95	1.1	295,334
B801	BLDG AND GROUNDS - BIOSOLIDS AGING & DISPOS	.00	292	.00	2,336	2,336.00-	100.0-	3,500
B802	BLDG AND GROUNDS - DISINFECTION	.00	90	309.84	720	410.16-	57.0-	1,061
B803	BLDG AND GROUNDS - EXCESS FLOW	.00	90	510.24	720	209.76-	29.1-	1,061
B804	BLDG AND GROUNDS - GRIT REMOVAL	.00	85	14,331.16	20,710	6,378.84-	30.8-	21,061
B805	BLDG AND GROUNDS - INFLUENT PUMPING	101.34	664	20,951.04	15,312	5,639.04	36.8	17,957
B806	BLDG AND GROUNDS - PRIMARY TREATMENT	.00	442	.00	3,536	3,536.00-	100.0-	5,305
B807	BLDG AND GROUNDS - SECONDARY TREATMENT	.00	175	3,148.00	6,900	3,752.00-	54.4-	7,622
B809	BLDG AND GROUNDS - SLUDGE DEWATERING	19.13	135	19.13	8,270	8,250.87-	99.8-	8,791
B810	BLDG AND GROUNDS - SLUDGE DIGESTION	163.04	310	11,333.74	17,220	5,886.26-	34.2-	18,463
B811	BLDG AND GROUNDS - TERTIARY TREATMENT	.00	440	3,019.18	13,020	10,000.82-	76.8-	14,805
B812	BLDG AND GROUNDS - WWTC GENERAL	4,561.62	6,600	57,823.09	118,100	60,276.91-	51.0-	144,641
B813	BLDG AND GROUNDS - WWTC UTILITIES	14.61	130	986.33	1,040	53.67-	5.2-	1,583
	SECT B TOTALS	74,312.30	120,989	1,305,480.02	1,696,772	391,291.98-	23.1-	2,077,050
	SECT C VEHICLES							
C222	GAS/FUEL	1,814.17	1,850	15,548.95	14,800	748.95	5.1	22,000
C225	OPERATION/REPAIR	48.89	667	3,814.80	5,336	1,521.20-	28.5-	8,000
C226	VEHICLE PURCHASES	37,847.00	0	37,847.00	54,500	16,653.00-	30.6-	54,500
	SECT C TOTALS	39,710.06	2,517	57,210.75	74,636	17,425.25-	23.4-	84,500
	DEPT 12 TOTALS	229,131.40	289,062	2,326,533.74	2,813,573	487,039.26-	17.3-	3,605,250
	DEPT 13 O & M EXPENSES - LABORATORY							
	SECT A SALARIES AND WAGES							

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
A009	OPERATIONS MANAGEMENT	4,942.97	9,653	46,864.63	59,148	12,283.37-	20.8-	82,150
A040	LABORATORY - BUDGET	.00	20,234	.00	123,984	2,296.96-	1.9-	172,200
A041	LAB - WWTC	11,082.94	0	98,928.05	0	.00	.0	0
A042	LAB - PRETREATMENT	1,834.09	0	11,355.84	0	.00	.0	0
A043	LAB - SURCHARGE PROGRAM	1,117.18	0	7,634.74	0	.00	.0	0
A048	LAB - ENERGY RECOVERY	490.37	0	3,768.41	0	.00	.0	0
A085	INCENTIVE	.00	0	400.00	600	200.00-	33.3-	600
A086	VACATION BUYOUT	.00	0	1,933.68	4,600	2,666.32-	58.0-	4,600
	SECT A TOTALS	19,467.55	29,887	170,885.35	188,332	17,446.65-	9.3-	259,550
	SECT B OPERATIONS AND MAINTENANCE							
B112	COMMUNICATION	498.40	300	1,529.19	2,400	870.81-	36.3-	3,500
B114	CHEMICALS	1,403.85	1,875	11,861.52	15,000	3,138.48-	20.9-	22,400
B115	EQUIPMENT/EQUIPMENT REPAIR	69.39	4,400	6,114.87	35,400	29,285.13-	82.7-	53,000
B116	SUPPLIES	362.42	2,000	11,150.54	16,000	4,849.46-	30.3-	23,000
B117	EMPLOYEE/DUTY COSTS	389.48	450	767.63	3,750	2,982.37-	79.5-	5,500
B122	MONITORING EQUIPMENT	.00	0	1,050.26	6,750	5,699.74-	84.4-	9,000
B123	OUTSIDE LAB SERVICES	2,123.42	2,600	13,732.10	21,000	7,267.90-	34.6-	31,400
	SECT B TOTALS	4,846.96	11,625	46,206.11	100,300	54,093.89-	53.9-	147,800
	SECT C VEHICLES							
C222	GAS/FUEL	51.94	50	307.67	400	92.33-	23.1-	600
C225	OPERATION/REPAIR	.00	50	41.41	200	158.59-	79.3-	250
	SECT C TOTALS	51.94	100	349.08	600	250.92-	41.8-	850
	DEPT 13 TOTALS	24,366.45	41,612	217,440.54	289,232	71,791.46-	24.8-	408,200
	DEPT 14 O & M EXPENSES - SEWER SYSTEM							
	SECT A SALARIES AND WAGES							
A006	ENGINEERING	141.30	1,204	3,077.05	7,380	4,302.95-	58.3-	10,250
A050	SEWER MAINTENANCE - BUDGET	.00	23,894	.00	146,412	15,680.49	10.7	203,350
A051	SEWER MAINTENANCE	12,827.99	0	149,796.51	0	.00	.0	0
A054	SEWER MAINTENANCE - BACKUPS AND HIGH FLOWS	1,358.39	0	12,295.98	0	.00	.0	0
A060	INSPECTION - BUDGET	.00	29,034	.00	177,912	20,109.50-	11.3-	247,100
A061	INSPECTION - NEW CONSTRUCTION	.00	0	1,228.93	0	.00	.0	0
A062	INSPECTION - CONSTRUCTION OF DGSD PROJECTS	4,851.60	0	51,216.08	0	.00	.0	0
A063	INSPECTION - PERMIT INSPECTIONS	664.73	0	7,655.18	0	.00	.0	0
A064	INSPECTION - MISCELLANEOUS	2,550.28	0	26,585.34	0	.00	.0	0
A065	INSPECTION - CONSTR BY VILLAGES, UTILITIES	2,808.48	0	29,178.87	0	.00	.0	0
A066	INSPECTION - CODE ENFORCEMENT	4,390.47	0	41,938.10	0	.00	.0	0
A070	SEWER INVESTIGATIONS - BUDGET	.00	564	.00	3,456	1,473.21-	42.6-	4,800
A072	SEWER INVESTIGATIONS	.00	0	1,982.79	0	.00	.0	0
A085	INCENTIVE	.00	0	1,400.00	1,400	.00	.0	1,400
A086	VACATION BUYOUT	.00	0	.00	10,850	10,850.00-	100.0-	10,850
A090	WORK FROM HOME REIMBURSEMENT ALLOWANCE	.00	153	200.00	936	736.00-	78.6-	1,300
	SECT A TOTALS	29,593.24	54,849	326,554.83	348,346	21,791.17-	6.3-	479,050

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
SECT B	OPERATIONS AND MAINTENANCE							
B112	COMMUNICATION	377.39	950	4,938.69	7,700	2,761.31-	35.9-	11,500
B113	EMERGENCY/SAFETY EQUIPMENT	.00	375	1,598.65	3,100	1,501.35-	48.4-	4,600
B115	EQUIPMENT/EQUIPMENT REPAIR	6,196.31	3,100	27,189.66	25,000	2,189.66	8.8	37,400
B116	SUPPLIES	803.59	375	4,061.52	3,000	1,061.52	35.4	4,500
B117	EMPLOYEE/DUTY COSTS	2,046.35	1,125	3,517.77	9,000	5,482.23-	60.9-	13,500
B124	CONTRACT SERVICES	111.30	8,750	79,751.70	70,000	9,751.70	13.9	105,000
B127	JULIE SYSTEM	.00	1,300	7,853.16	10,550	2,696.84-	25.6-	15,750
B128	OVERHEAD SEWER/BACKFLOW PREVENTION PROGRAM	.00	4,000	2,957.00	27,000	24,043.00-	89.1-	40,000
B129	REIMBURSEMENT PROGRAM/PUBLIC SEWER BLOCKAGE	3,076.80	1,000	4,313.10	8,000	3,686.90-	46.1-	12,000
B900	SEWER SYSTEM REPAIRS - BUDGET	.00	240,000	.00	1,980,000	708,469.85-	35.8-	2,833,600
B901	SEWER SYSTEM REPAIRS - I/I PROGRAM	178,007.34	0	737,680.10	0	.00	.0	0
B902	SEWER SYSTEM REPAIRS - REPLACEMENT	485.00	0	16,751.33	0	.00	.0	0
B903	SEWER SYSTEM REPAIRS - REHABILITATION	.00	0	4,855.34	0	.00	.0	0
B910	SEWER SYSTEM REPAIRS - BSSRAP PROGRAM	85,846.10	0	414,855.72	0	.00	.0	0
B913	SEWER SYSTEM REPAIRS - BSSRAP-REPAIR/REPL/R	2,450.00	0	6,592.07	0	.00	.0	0
B929	ARRA LOAN PRINCIPAL REPAYMENT	.00	0	90,795.59	0	.00	.0	0
	SECT B TOTALS	279,400.18	260,975	1,407,711.40	2,143,350	735,638.60-	34.3-	3,077,850
SECT C	VEHICLES							
C222	GAS/FUEL	931.25	2,167	10,482.52	17,336	6,853.48-	39.5-	26,000
C225	OPERATION/REPAIR	135.92	558	4,406.35	4,464	57.65-	1.3-	6,700
C226	VEHICLE PURCHASES	.00	0	30,794.89	12,500-	43,294.89	346.4-	12,500-
	SECT C TOTALS	1,067.17	2,725	45,683.76	9,300	36,383.76	391.2	20,200
	DEPT 14 TOTALS	310,060.59	318,549	1,779,949.99	2,500,996	721,046.01-	28.8-	3,577,100
DEPT 15	O & M EXPENSES - LIFT STATIONS							
SECT A	SALARIES AND WAGES							
A006	ENGINEERING	141.30	1,075	3,830.05	6,588	2,757.95-	41.9-	9,150
A009	OPERATIONS MANAGEMENT	447.89	470	1,286.85	2,880	1,593.15-	55.3-	4,000
A030	BUILDING AND GROUNDS	56.27	846	468.92	5,184	4,715.08-	91.0-	7,200
A080	LIFT STATION MAINTENANCE	485.14	7,613	6,958.93	46,573	39,614.07-	85.1-	65,650
	SECT A TOTALS	1,130.60	10,004	12,544.75	61,225	48,680.25-	79.5-	86,000
SECT B	OPERATIONS AND MAINTENANCE							
B100	ELECTRICITY	14,885.31	11,250	75,246.49	90,000	14,753.51-	16.4-	135,000
B104	FUEL - GENERATORS	.00	0	.00	2,625	2,625.00-	100.0-	3,500
B112	COMMUNICATION	368.26	500	2,953.18	4,500	1,546.82-	34.4-	6,500
B113	EMERGENCY/SAFETY EQUIPMENT	.00	0	513.61	1,000	486.39-	48.6-	1,000
B116	SUPPLIES	.00	0	.00	300	300.00-	100.0-	400
B520	EQPT/EQPT REPAIR - BUTTERFIELD	.00	175	31.94	1,400	1,368.06-	97.7-	3,047
B521	EQPT/EQPT REPAIR - CENTEX	.00	225	1,754.05	1,800	45.95-	2.6-	277,685
B522	EQPT/EQPT REPAIR - COLLEGE	.00	180	3,624.68	11,440	7,815.32-	68.3-	27,175
B523	EQPT/EQPT REPAIR - EARLSTON	.00	160	256.36	1,280	1,023.64-	80.0-	2,785

FUND 01 GENERAL FUND

NUMBER	COST DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
B524	EQPT/EQPT REPAIR - HOBSON	.00	175	.00	14,700	14,700.00-	100.0-	17,891
B525	EQPT/EQPT REPAIR - LIBERTY PARK	.00	85	1,400.00	2,195	795.00-	36.2-	3,527
B526	EQPT/EQPT REPAIR - NORTHWEST	11,152.47	85	21,928.17	4,195	17,733.17	422.7	6,152
B527	EQPT/EQPT REPAIR - VENARD	.00	85	1,872.91	2,195	322.09-	14.7-	3,660
B528	EQPT/EQPT REPAIR - WROBLE	.00	85	341.16	7,695	7,353.84-	95.6-	9,705
B529	EQPT/EQPT REPAIR - LIFT STATIONS GENERAL	16.02	2,800	4,987.87	30,700	25,712.13-	83.8-	47,073
B820	BLDG AND GROUNDS - BUTTERFIELD	130.00	0	1,487.14	0	1,487.14	.0	0
B821	BLDG AND GROUNDS - CENTEX	130.00	0	1,156.50	0	1,156.50	.0	0
B823	BLDG AND GROUNDS - EARLSTON	130.00	0	1,130.50	15,000	13,869.50-	92.5-	15,000
B824	BLDG AND GROUNDS - HOBSON	130.00	0	20,175.09	20,000	175.09	.9	20,000
B825	BLDG AND GROUNDS - LIBERTY PARK	130.00	0	1,146.50	0	1,146.50	.0	0
B826	BLDG AND GROUNDS - NORTHWEST	40,904.00	0	42,067.80	81,000	38,932.20-	48.1-	81,000
B827	BLDG AND GROUNDS - VENARD	130.00	0	6,531.50	7,500	968.50-	12.9-	7,500
B828	BLDG AND GROUNDS - WROBLE	130.00	0	1,170.50	0	1,170.50	.0	0
B829	BLDG AND GROUNDS - LIFT STATIONS GENERAL	.00	2,175	443.20	17,400	16,956.80-	97.5-	26,000
	SECT B TOTALS	68,236.06	17,980	190,219.15	316,925	126,705.85-	40.0-	694,600
	DEPT 15 TOTALS	69,366.66	27,984	202,763.90	378,150	175,386.10-	46.4-	780,600
	DEPT 17 O & M EXPENSES - INSURANCE & EMPLOYEE BENEFITS							
	SECT E INSURANCE AND EMPLOYEE BENEFITS							
E452	LIABILITY/PROPERTY	.00	0	213,607.88	220,000	6,392.12-	2.9-	220,000
E455	EMPLOYEE GROUP HEALTH	41,393.43	43,700	342,425.48	349,600	7,174.52-	2.1-	524,000
E460	IMRF	22,203.99	37,248	194,494.52	228,240	33,745.48-	14.8-	317,000
E461	SOCIAL SECURITY	17,694.49	28,435	156,362.65	174,240	17,877.35-	10.3-	242,000
	SECT E TOTALS	81,291.91	109,383	906,890.53	972,080	65,189.47-	6.7-	1,303,000
	DEPT 17 TOTALS	81,291.91	109,383	906,890.53	972,080	65,189.47-	6.7-	1,303,000
	DEPT 91 SA EXPENSE							
	DEPT 91 TOTALS	.00	0	.00	0	.00		0
	FUND EXPENSE TOTAL	827,779.92	942,297	6,281,710.39	8,137,288	1,855,577.61-	22.8-	11,301,900
	FUND 01 TOTALS	73,469.67	210,193	995,220.84-	1,125,487	2,120,707.84-	188.4-	1,643,150

FUND 02 IMPROVEMENT FUND

NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
3007	INTEREST ON INVESTMENTS	42.34-	250-	583.07-	2,000-	3,000-
3010	TRUNK SEWER SERVICE CHARGES	.00	7,500-	16,485.03-	60,000-	90,000-
	DEPT 05 TOTALS	42.34-	7,750-	17,068.10-	62,000-	93,000-
DEPT 30	CAPITAL EXP - ARRA - LOAN REPAYMENTS					
0500	PROJECT BUDGET	.00	0	.00	46,600	93,200
0515	PAYMENT ON LOAN PRINCIPAL	.00	0	46,595.52	0	0
	DEPT 30 TOTALS	.00	0	46,595.52	46,600	93,200
DEPT 36	CAPITAL EXP - LIBERTY PARK LIFT STATION UPGRADE					
	DEPT 36 TOTALS	.00	0	.00	0	0
DEPT 47	CAPITAL EXP - CENTEX LIFT STATION UPGRADE					
0502	DESIGN ENGINEERING/ARCHITECTURAL	.00	0	49,461.19	26,000	26,000
0504	CONSTRUCTION ADMIN/RESIDENT ENG/ARCH SUPRVI	1,000.00	18,000	6,789.64	29,000	84,000
0506	CONSTRUCTION CONTRACTS AND PURCHASES	.00	220,000	.00	680,000	1,200,000
	DEPT 47 TOTALS	1,000.00	238,000	56,250.83	735,000	1,310,000
DEPT 74	CAPITAL EXP - SEWER - UNSEWERED AREAS					
0500	PROJECT BUDGET	.00	0	118.75	500	500
	DEPT 74 TOTALS	.00	0	118.75	500	500
	FUND EXPENSE TOTAL	1,000.00	238,000	102,965.10	782,100	1,403,700
	FUND 02 TOTALS	957.66	230,250	85,897.00	720,100	1,310,700

FUND 03 CONSTRUCTION FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
3007	INTEREST ON INVESTMENTS	57.96-	100-	297.42-	1,000-	1,400-
3009	SEWER PERMIT FEES	.00	20,833-	49,387.38-	166,664-	250,000-
DEPT 05	TOTALS	57.96-	20,933-	49,684.80-	167,664-	251,400-
DEPT 30	CAPITAL EXP - ARRA - LOAN REPAYMENTS					
0500	PROJECT BUDGET	.00	0	.00	14,450	28,900
0515	PAYMENT ON LOAN PRINCIPAL	.00	0	14,403.64	0	0
DEPT 30	TOTALS	.00	0	14,403.64	14,450	28,900
DEPT 31	CAPITAL EXP - WWTC - CHP BIOGAS					
DEPT 31	TOTALS	.00	0	.00	0	0
DEPT 32	CAPITAL EXP - WWTC - SECOND TURBOBLOWER					
DEPT 32	TOTALS	.00	0	.00	0	0
DEPT 33	CAPITAL EXP - WWTC - DIGESTER MIXING/GAS PIPING					
DEPT 33	TOTALS	.00	0	.00	0	0
DEPT 34	CAPITAL EXP - WWTC - GREASE WASTE DELIVERY RAMP					
DEPT 34	TOTALS	.00	0	.00	0	0
DEPT 35	CAPITAL EXP - WWTC - CHP BIOGAS PHASE 2					
DEPT 35	TOTALS	.00	0	.00	0	0
DEPT 37	CAPITAL EXP - WWTC - GREASE RECEIVING STATN NO2					
DEPT 37	TOTALS	.00	0	.00	0	0
DEPT 38	CAPITAL EXP - WWTC - PROPERTY ACQUISITION					
DEPT 38	TOTALS	.00	0	.00	0	0
DEPT 39	CAPITAL EXP - WWTC - GRIT BLOWER REPLACEMENT					

FUND 03 CONSTRUCTION FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
	DEPT 39 TOTALS	.00	0	.00	0	0
	DEPT 40 CAPITAL EXP - WWTC - LOAN REPAYMENT					
	DEPT 40 TOTALS	.00	0	.00	0	0
	FUND EXPENSE TOTAL	.00	0	14,403.64	14,450	28,900
	FUND 03 TOTALS	57.96-	20,933-	35,281.16-	153,214-	222,500-

FUND 05 PUBLIC BENEFIT FUND

NUMBER	DESCRIPTION	COST	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES						
3007	INTEREST ON INVESTMENTS		.00	30-	13.19-	240-	350-
	DEPT 05 TOTALS		.00	30-	13.19-	240-	350-
DEPT 59	CAPITAL EXP - SEWER - SEWER EXTENSIONS						
	DEPT 59 TOTALS		.00	0	.00	0	0
DEPT 65	CAPITAL EXP - SEWER - REIMB FOR ADDED DEPTH						
	DEPT 65 TOTALS		.00	0	.00	0	0
	FUND EXPENSE TOTAL		.00	0	.00	0	0
	FUND 05 TOTALS		.00	30-	13.19-	240-	350-

FUND 71 SEWER EXTENSIONS ESCROW

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
3007	INTEREST ON INVESTMENTS	.00	0	2.61-	0	0
	DEPT 05 TOTALS	.00	0	2.61-	0	0
DEPT 92	SEWER EXPENSE					
	DEPT 92 TOTALS	.00	0	.00	0	0
	FUND EXPENSE TOTAL	.00	0	.00	0	0
	FUND 71 TOTALS	.00	0	2.61-	0	0

GENERAL MANAGER'S REPORT TO EMPLOYEES **December 30, 2021**

No Surprises Act

Please review the attached memo and notice regarding your rights and protections against surprise medical bills.

Personnel

The District is in the hiring process for the open Administrative Supervisor position. Interviews will be set up for early January with the goal of filling the position by the end of January.

Paid Leave Information

New personal leave and vacation time for 2022 is not reflected on the current pay stub and will be shown on the first pay stub you receive in January.

Employee W-2s

Employee W-2s for 2021 are complete and will be ready for distribution on January 4.

COVID-19

CURRENT LEVEL OF TRANSMISSION: **HIGH**

At this time, **all employees need to continue to wear masks when indoors**, regardless of vaccination status or whether you've had the virus.

As stated in my December 28 e-mail to all employees, the following procedures to limit the potential spread of COVID through our facilities will be in place through at least January 7:

1. Do not share vehicles or ride in the elevators with another employee.
2. Supervisors will be contacting employees to stagger shifts, lunchroom use, locker room use, etc. and to work remotely when possible.
3. Limit contact with other employees when possible. If you can communicate with another employee effectively through a phone call, e-mail or text rather than face to face, do so. If you must meet in person, maintain social distance when possible. Do not congregate for social time.

District Administration is currently in the process of updating the COVID Preparedness Plan in response to the new guidance released by the CDC on December 27. This guidance considers whether an individual has received a booster in determining whether quarantine is required after exposure to someone with COVID-19. At this time, the District is asking any employee that has received a booster shot to provide a copy of your vaccination card to Carly Shaw. This information will be kept confidential and used for (1) Contact tracing, (2) Approving use of COVID-19 sick leave to get the booster shot or you need to stay home due to symptoms from getting the shot, and (3) Administration of procedures in the COVID Preparedness Plan.

If you are not fully vaccinated and have been traveling to and are returning from out-of-state or have attended a gathering, you may be asked to self-quarantine prior to returning to work. Please

check with your supervisor or the District's Safety Coordinator in advance of traveling out-of-state or attending a gathering to determine beforehand if a quarantine will be necessary upon your return. All states and territories are currently on the travel advisory list with the exceptions of Guam and Montana.

TopHealth

The January 2022 edition of TopHealth is enclosed.

Sewer Rehabilitation/Infiltration and Inflow Removal

We are targeting the 1-K-028 area for private property inspections and I/I removal. We are also monitoring the area around the 1-M-049 manhole to evaluate flows in the vicinity and impacts of the installation of a bolt-down cover at 1-M-049. Data collected shows that the local system containing 1-M-049 appears to be operating satisfactorily. Regular flow monitoring continues.

Status of Projects

1) 001 Outfall Pipe Repair

   DuPage County has finished reviewing the final plans and specifications for this project and has no objections. District staff will work with B&W to determine a bid schedule.

2) Centex Lift Station Replacement

   The contractor is preparing shop drawings for review. The contractor plans to take soil samples at the lift station site the week of January 3rd.

HAPPY NEW YEAR TO YOU AND YOUR FAMILY!

GENERAL MANAGER'S REPORT TO EMPLOYEES **January 14, 2022**

WWTC Operations Data – December

The DMR for December indicates that the final effluent averaged 1.0 mg/L CBOD, 0.9 mg/L suspended solids and 0.28 mg/L ammonia-nitrogen over a daily average flow of 9.27 MGD. There were no permit excursions in December.

Financial Data – December

In December, the District received $754,310 in the General fund, including $329,071 in user charges, $23,103 in surcharges and $359,158 in monthly fees. General fund expenses totaled $827,780. The Improvement fund had revenues of $42 and expenses of $1,000. The Construction fund had revenues of $58 and expenses of $0.

Sewer Permits – December

There were 9 sewer permits issued in December – 3 single family, 1 commercial, 2 repairs, and 3 disconnections.

Personnel

The District is in the hiring process for the open Administrative Supervisor position. Interviews have been set up for mid-January.

COVID-19

CURRENT LEVEL OF TRANSMISSION: **HIGH**

At this time, **all employees need to continue to wear masks when indoors**, regardless of vaccination status or whether you've had the virus.

As stated in my December 28 and January 5 e-mails to all employees, the following procedures to limit the potential spread of COVID through our facilities will be in place until further notice:

1. Do not share vehicles or ride in the elevators with another employee.
2. Supervisors will be contacting employees to stagger shifts, lunchroom use, locker room use, etc. and to work remotely when possible.
3. Limit contact with other employees when possible. If you can communicate with another employee effectively through a phone call, e-mail or text rather than face to face, do so. If you must meet in person, maintain social distance when possible. Do not congregate for social time.

All employees should have received an assignment notification from Target Solutions on January 13 to read and acknowledge receipt of the revised COVID Preparedness Plan. Please be sure to read through the plan carefully. This was a significant rewrite from the previous version. The new guidance released by the CDC on December 27 was incorporated. In addition, the plan no longer refers to the Restore Illinois phases and tiers as those are no longer applicable as this virus continues to change.

The revised COVID Preparedness Plan considers whether an individual has received a booster in determining whether quarantine is required after exposure to someone with COVID-19. At this time, the District is asking any employee that has received a booster shot to provide a copy of your vaccination card to Carly Shaw. This information will be kept confidential and used for (1) Contact tracing, (2) Approving use of COVID-19 sick leave to get the booster shot or you need to stay home due to symptoms from getting the shot, and (3) Administration of procedures in the COVID Preparedness Plan.

If you are not up to date on your vaccinations and have been traveling to and are returning from out-of-state or have attended a gathering, you may be asked to self-quarantine prior to returning to work. Please check with your supervisor or the District's Safety Coordinator in advance of traveling out-of-state or attending a gathering to determine beforehand if a quarantine will be necessary upon your return. All states and territories are currently on the travel advisory list.

Sewer Rehabilitation/Infiltration and Inflow Removal

We are targeting the 1-K-028 area for private property inspections and I/I removal. We are also monitoring the area around the 1-M-049 manhole to evaluate flows in the vicinity and impacts of the installation of a bolt-down cover at 1-M-049. Data collected shows that the local system containing 1-M-049 appears to be operating satisfactorily. Regular flow monitoring continues.

Status of Projects

1) 001 Outfall Pipe Repair

   DuPage County has finished reviewing the final plans and specifications for this project and has no objections. District staff will work with B&W to determine a bid schedule.

2) Centex Lift Station Replacement

   The contractor is preparing shop drawings for review.

3) Administration Center Modifications

   Preliminary design has begun on the Administration Center modifications. Modifications will include remodeling of the front entrance and counter and a kitchenette in the Board room.

Amy Underwood

From: Amy Underwood
Sent: Monday, December 20, 2021 10:43 AM
To: Todd.Bennett@Illinois.gov
Subject: FW: Downers Grove Sanitary District Sanitary Force Main Break Notification

Dear Todd,

I received out of office replies from both Jay and Linda in response to the notification below. I called the DesPlaines Field Office, and the lady that answered the phone suggested that I forward this notice to you in Jay's absence.

Please let me know if you have any questions.

Sincerely,
Amy

Amy R. Underwood, P.E.
General Manager

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515
(630)969-0664
www.dgsd.org

From: Amy Underwood
Sent: Monday, December 20, 2021 10:33 AM
To: Patel, Jay <Jay.Patel@Illinois.gov>
Cc: Linda Wong (Linda.Wong@illinois.gov) <linda.wong@illinois.gov>
Subject: Downers Grove Sanitary District Sanitary Force Main Break Notification

Dear Jay,

The purpose of this message is to notify the Agency of a sewer lift station force-main break at the District's Venard Lift Station. The break is located under Venard Road in front of the property at 3713 Venard Road, Downers Grove, IL. The Sanitary District received notification of the break from the Village of Downers Grove at 7:30 a.m. today (i.e., Monday, December 20th). Less than five gallons of wastewater surfaced and froze on the pavement. This location has two force mains. By 8:30 a.m., we were able to shut off the force main which was leaking and stop the flow to the street while continuing service to our customers.

We currently working to get the force main repair scheduled for tomorrow morning. I will provide a full report to the Agency after the repair is complete.

Please do not hesitate to contact me should you have any questions.

Sincerely,
Amy

Amy R. Underwood, P.E.
General Manager

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515
(630)969-0664
www.dgsd.org

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

December 22, 2021

Compliance Assurance Section – MC #19
Bureau of Water
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

To Whom It Concerns:

Attached please find the Sanitary Sewer Overflow or Bypass Notification Summary Report describing an overflow that occurred as a result of the following lift station force main break:

Lift Station	Force Main Break Location	Overflow Date
Venard	3713 Venard Rd, Downers Grove	December 20, 2021

The District was notified at 7:30 a.m. on December 20, 2020 by the Village of Downers Grove. Evidence of the break was observed at the break location, where ice had formed on the pavement above where water was surfacing. This lift station has dual force mains. All flow was diverted to the other force main by 8:30 a.m. allowing us to continue to serve our customers.

Traffic control devices were set up to prevent the public from entering the impacted area, and our technicians posted appropriate signage during the event.

The tributary area includes residential and light commercial, with no industrial discharges. No sewage-related debris surfaced.

An emergency repair of the force-main was complete by 1:45 p.m. on December 22, 2021 and the force-main was placed back in service.

Any evidence of the spillage has been cleaned up.

We continue with ongoing sewer replacement and rehabilitation efforts to reduce I/I and improve collection system (including force main) performance, as described in our CMOM.

If you have any questions, please do not hesitate to call me at the number provided herein or send an

e-mail message to me at aunderwood@dgsd.org.

Sincerely,
DOWNERS GROVE SANITARY DISTRICT

Amy R. Underwood
General Manager

Encl.

C: Board of Trustees
Todd Bennett, IEPA
Jay Patel, IEPA
Linda Wong, IEPA

Illinois Environmental Protection Agency

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

Sanitary Sewer Overflow or Bypass Notification Summary Report

- Within 24 hours of the occurrence, notify the Illinois EPA regional wastewater staff by telephone, FAX, email or voice mail, if staff are unavailable.
- Within 5 days of the occurrence, provide a written report describing the overflow or bypass, including all information requested on this form. The permittee is required to submit this form or other equivalent written notification to the Illinois EPA at:

Bureau of Water/Compliance Assurance Section - MC #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

NOTE: You may complete this form online, save a copy locally, print, sign and submit it to the BOW/CAS MC #19, at the above address. You may also print the form before completing it by hand, signing and submitting it.

Failure to notify the Illinois EPA as specified may result in fines up to $10,000 for each day of violation.

Instructions: Use this form to report all unscheduled sanitary sewer overflow or bypass occurrences. Attach additional information as necessary to explain or document the overflow or bypass. For the purpose of this report, an overflow or bypass is defined as the discharge of untreated sewage from the sanitary sewer collection system to a surface water and/or ground due to circumstances such as those identified by the check boxes in the overflow or bypass details section of this form.

Use one form per occurrence. A single occurrence may be more than one day if the circumstances causing the overflow or bypass results in a discharge duration of more than 24 hours. If there is a stop and restart of the overflow or bypass within 24 hours, but it is caused by the same circumstances, report it as one occurrence. If the discharges are separated by more than 24 hours, they should be reported as separate occurrences.

24 Hour Notification Information

Permittee (Municipality or Facility Name):	Permit Number:	Person Representing Permittee Who Contacted IEPA:
Downers Grove Sanitary District	IL0028380	Amy R. Underwood

Date:	Time:	AM	PM	IEPA Office Contacted:	Name of IEPA Employee Contacted:
12/20/2021	10:43	☒	☐	Des Plaines	Todd Bennett

Sanitary Sewer Overflow or Bypass Details

Date and Duration of Overflow or Bypass Occurrence (complete a separate form for each occurrence):

Start Date:	Time:	AM	PM	Duration of the overflow or bypass (hours and minutes):
12/20/2021	7:30	☒	☐	Less than 24 hours intermittent trickle (frozen on pavement)

Estimated Volume of Wastewater Discharged (gallons):	WWTP Flow During bypass (report in MGD): Not applicable for a collection system SSO.	Location of the Overflow or Bypass:
5		Venard Road at 3713 Venard Road, Downers Grove

Circumstances Causing the Overflow or Bypass (check all that apply)

WPC 733
11/2011

☐ Rain ☐ Power Outage ☐ Equipment Failure ☐ Other (explain below)
☐ Snow Melt ☒ Broken Sewer ☐ Widespread Flooding

Provide a narrative description to further explain why the overflow or bypass occurred. For example, describe what equipment failed. What caused the power outage, or what plugged the sewer. Flooding should only be indicated, as a cause if there is significant flooding that is caused by high river, stream, or lake water levels, not just localized high water in the street.

Venard lift station broke causing wastewater to surface and freeze on the pavement and then either evaporate or soak into the ground through cracks in the pavement.

Wet Weather (if applicable)

Date(s) and Duration of Rainfall:

Start Date:	Time:	AM PM	End Date:	Time:	AM PM	Amount of Rainfall (inches)	Amount of Snow Melt (inches)
		☐ ☐			☐ ☐		

Contributing Soil Conditions (saturated, frozen, soil type)

Where Did the Discharge from the Overflow or Bypass Go? (check all that apply)

Provide the name of the local receiving water that the wastewater enters, which could be a nearby stream, river, lake, or wetland. If discharge does not enter directly into surface water, but indirectly by way of a ditch or storm sewer, trace the path of the ditch or storm sewer to find the receiving water.

- ☒ Runs on ground and absorbs into the soil
- ☐ Ditch: Name of surface water it drains to:
- ☐ Storm Sewer: Name of surface water it drains to:
- ☐ Surface water direct discharge:
- ☐ Basement Back-ups, (Number & use (i.e.residential, commercial) of buildings affected):
- ☐ Other, describe:

Actions to Correct This Occurrence and Prevent Future Owerflows or Bypasses

Describe what actions were taken to minimize the volume of wastewater discharged from the overflow or bypass reported on this form. Also describe what actions are planned to prevent or minimize future overflows or bypassess. Illinois law and NPDES permits prohibit overflows or bypasses, unless certain specified conditions are met. Sanitary sewer overflows and bypasses may be the subject of enforcement action.

Flow through the force main was shut off. Force Main was repaired 12/22/2021 and leak tested before putting back into service. The District will continue with ongoing sewer maintenance and repair as outlined in our CMOM program.

Report Completed By

Contact Person: Amy R. Underwood
Street Address: 2710 Curtiss Street
PO Box: 1412
City: Downers Grove State: IL
Zip Code: 60515 Phone: 6309690664
County: Amy R. Underwood

Authorized Representative Contact Information

Contact Person: Amy R. Underwood
Title: General Manager
Street Address: 2710 Curtiss Street
PO Box: 1412
City: Downers Grove State: IL
Zip Code: 60515 Phone: 6309690664
County: DuPage

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

Authorized Representative Name (Print): Amy R. Underwood

Title: General Manager

Authorized Representative Signature

Date: 12/22/2021

Amy Underwood

From: Deanna Doohaluk <DDoohaluk@theconservationfoundation.org>
Sent: Friday, December 24, 2021 9:00 AM
To:

Cc: Stephen McCracken
Subject: DRSCW/LDWRC - NPS Phosphorus Reduction Feasibility Analysis Report
Attachments: DRSCW-LDRWC_NPSPhosphorusReductionFeasibilityAnalysis_CompressedFile_FINAL.pdf

Follow Up Flag: Flag for follow up
Flag Status: Completed

Special Condition Holders:

The NPS Phosphorus Feasibility Analysis Report (attached) fulfills the requirement set forth is Section 16.B of our Special Conditions (see Table 1 as extracted from the 2016 DRSCW Special Conditions). We have submitted this report electronically to the IEPA on your behalf on December 24, 2021 at 8:55am. There is no need for you to send the report to the IEPA individually.

Table 1. *Extracted from 2016 DRSCW Special Conditions.*

Project Name	Completion Date	Short Term Objectives	Long Term Objectives
NPS Phosphorus Feasibility Analysis	December 31, 2021	Assess NPS performance reductions from leaf litter and street sweeping	Reduce NPS contributions to lowest practical levels

We wish you and your families a Happy Holiday Season! Please let me know if you have any questions.
-dd

Deanna Doohaluk

Watershed Project Manager, DuPage River Salt Creek Workgroup
The Conservation Foundation
10 S 404 Knoch Knolls Road
Naperville, IL 60565
P: 630-428-4500, Ext. 133
F: 630-428-4599
www.theconservationfoundation.org

Connect With Us:
Instagram // Facebook // LinkedIn // YouTube

We save land. We save rivers.

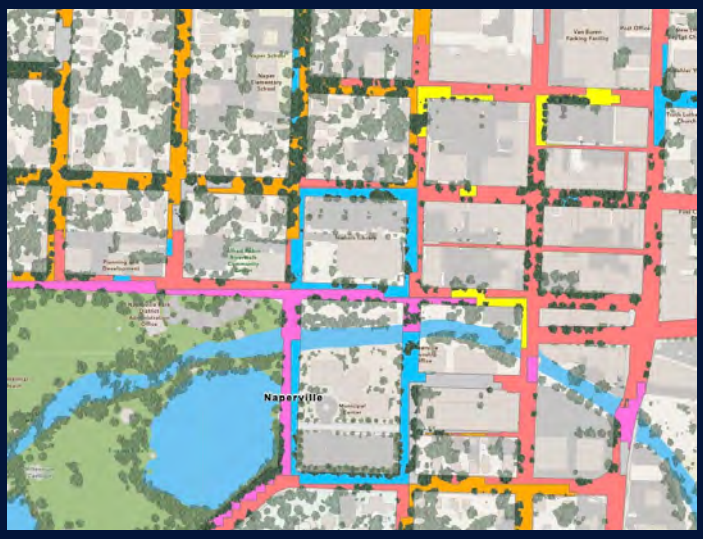


Photo Courtesy of Glendale Heights

Non-Point Source Phosphorus Reduction Feasibility Analysis

December 2021

BAXTER & WOODMAN Consulting Engineers

LOWER DUPAGE RIVER WATERSHED COALITION

DuPage River Salt Creek Workgroup

www.drscw.com | 10S404 Knoch Knolls Rd | Naperville, IL 60565

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I. Acknowledgements

The Non-Point Source (NPS) Phosphorus Reduction Feasibility Study was funded by members of the DuPage River Salt Creek Workgroup (DRSCW) and Lower DuPage River Watershed Coalition (LDRWC) through monies collected as part of the Special Condition of the National Pollutant Discharge Elimination System (NPDES) wastewater treatment permits. Contributing staff members from The Conservation Foundation (TCF) were Stephen McCracken, Deanna Doohaluk, Alex Handel, and Jennifer Hammer, as well as intern Erin Rhodes. The development of this report would not have been possible without the significant contributions of Baxter & Woodman Consulting Engineers, notably Dan Bounds, Eileen M. Kennedy, and Tom Krohn.

The DRSCW and LDWRC wishes to recognize and thank all of our project partners. DuPage County Stormwater Management (DC SWM) assisted with the distribution of the questionnaire to DuPage County communities. V3 Companies, Ltd. provided GIS services to support the development of the canopy cover layer utilized in the analysis. We also thank the members of the DRSCW Projects Committee for their input on all phases of the project from the development of the questionnaire to the review of the final report.

II. Executive Summary

Permit holders in the Salt Creek and DuPage River Basins, as part of their Illinois NPDES permit, evaluated the impact of area street sweeping and leaf litter management practices on non-point source loadings of total phosphorous (TP) pollution and developed recommendations on how those programs might be made more effective in regards to TP removal.

Leaf litter and street sweeping were selected for evaluation over structural BMPs for a number of reasons. These "source reduction" practices are already ubiquitous in the watersheds as they are already included in municipal budgets and are understood by local public agencies. Structural BMPs, while required on most new and redevelopment projects per local and state regulations are appearing only slowly in the already developed landscape of DuPage, Cook and Will Counties. Further, source reduction practices do not compete for the limited space in the urban environment. Structural BMPs also require ongoing maintenance to continue to remove nutrients and can even switch from sinks to sources over time, perhaps most critically during the important spring period.

Source reduction practices also target TP in urban stormwater more precisely. Intensive monitoring of urban stormwater wash off from residential areas suggest that nearly 60% of the annual warm weather TP loading (59% of which was in the dissolved fraction) occurs in the fall and comes from leaf litter biomass. Research shows that leaf litter management can reduce TP loadings in fall stormwater runoff by over 60%.

To better understand and quantify current conditions in the targeted watersheds, the study developed a high resolution map of "effective canopy cover". This is the tree canopy that overhangs the road system and has been shown as being the major predictive factor of TP loading from impervious surfaces. To collect data for this study, a questionnaire was sent to communities, townships and agencies who operate a transportation network, which had a 58% reply rate representing approximately 77% of the total study area. Data from the questionnaire was used to populate a modified version of the Minnesota Pollution Control Agency (MPCA) Street Sweeping Tool, calibrated to better reflect the TPS capture rates using a curb mile input. The model calculated that from the 77 % of the watershed coved by the questionnaire, street sweeping captured 6,870 and 12,021 lbs TP/year at the 25^{th} and 50^{th} percentile respectively. The frequency of sweeping, timing of sweeping (spring and fall) and the nature of the road drainage system (curb and gutter or swale) all played roles in the magnitude of TP removal at individual agencies.

Although all questionnaire responders have a sweeping program and most vary sweeping frequency seasonally, there are opportunities to increase the efficiency of TP removal using source reduction practices. Most notably, a number of agencies do not increase the frequency of their sweepings in fall and spring, and areas with a high effective canopy cover may also benefit from increase sweeping frequency.

Any additional investments aimed at reducing loading from non-point sources would need to be weighed against the marginal costs of TP removal at Publicly Owned Treatment Plants. The findings and recommendations in this study report will be included in the Nutrient Implementation Plan (NIP) planned for December 2023.

1. Introduction

As part of the NPDES Permit Special Conditions and in support of nutrient water quality assessment and reduction efforts, the DuPage River Salt Creek Workgroup (DRSCW) and Lower DuPage Watershed Coalition (LDRWC) have performed an analysis of the current performance of street sweeping and leaf litter management practices and their impacts on phosphorous source reduction. This analysis includes the identification of opportunities for future reductions of total phosphorus (TP) in stormwater runoff. Table 1 was extracted from the 2016 DRSCW Special Conditions and contains the specifics for this study.

Table 1. *Extracted from 2016 DRSCW Special Conditions.*

Project Name	Completion Date	Short Term Objectives	Long Term Objectives
NPS Phosphorus Feasibility Analysis	December 31, 2021	Assess NPS performance reductions from leaf litter and street sweeping	Reduce NPS contributions to lowest practical levels

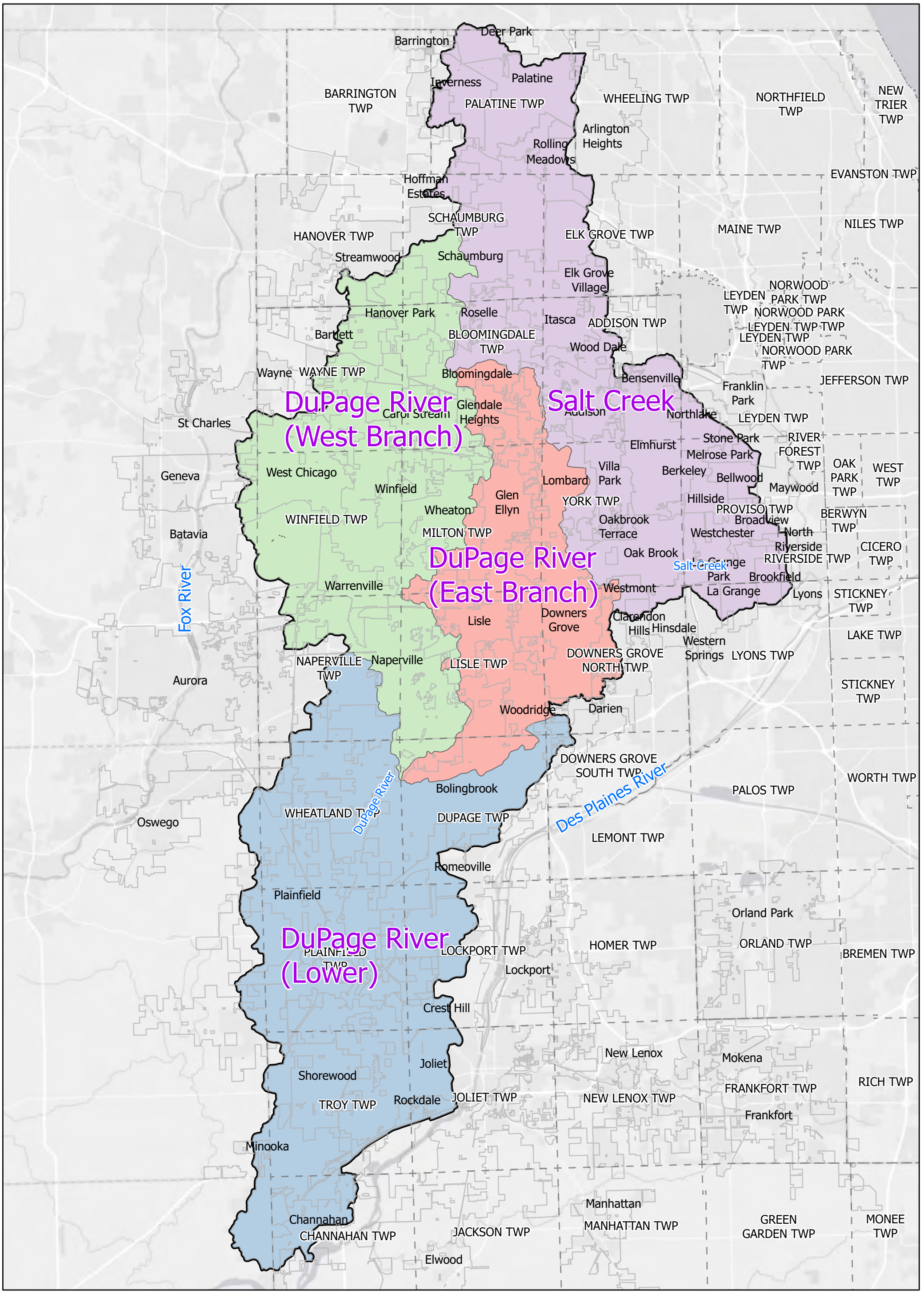
While street sweeping and leaf litter collection both commonly occur in the DRSCW and LDRWC area, this analysis was aimed at estimating the magnitude of current TP reductions and identifying areas where sweeping and leaf litter collection practices could be implemented or enhanced to increase stormwater TP reduction. The analysis area includes the three river basins of the DuPage River – East Branch, West Branch, and main stem (Lower DuPage), as well as the Salt Creek basin, with a total area of approximately 530 square miles. This area contains approximately 104 communities, townships, and agencies with authority over a public roadway network which may have a leaf litter and/or street sweeping program. Map 1 shows the DRSCW and LDRWC Watersheds and their municipal units.

This report summarizes the data that was collected and analyzed, the analysis tools and approaches used, an estimate of current TP reductions from street sweeping and leaf litter collection practices, opportunities for improved TP reductions, and additional data collection or study efforts that could further inform non-point source nutrient reduction efforts in the DRSCW and LDRWC watersheds.

PROJECT OVERVIEW

MAP 1: DRSCW AND LDRWC WATERSHEDS MAP

DUPAGE RIVER SALT CREEK WORKGROUP



2. Background to Study

Phosphorus can enter surface water from several sources - organic matter (leaves, flowers, pollen, lawn clippings), animal feces, lawn fertilizers, atmospheric deposition of dusts, and erosion of soils (Berretta & Sansalone, 2011; Waller, 1977). Although it exists in several naturally occurring compounds, it is often measured in terms of total phosphorus, TP. While TP is naturally present, above certain concentrations it can act as a nutrient that triggers algal growth leading to cascading negative effects on surface water quality (Bothwell, 1988; Biggs, 1995; Rosemond, 1993; Hill & Dimick, 2002; Bushong & Bachmann, 1989; Van Nieuwenhuyse & Jones, 1996).

In urban systems, impervious surfaces like roads can fast-track TP into storm sewer systems that lead directly to surface water with little to no capture. Communities, townships, and agencies that manage public road systems often engage in some level of street sweeping either by hand, or using mechanical broom, regenerative air or vacuum filter machines. Such practices are carried out to improve aesthetics, remove potential driving and braking hazards, and keep storm sewer grates free from debris (interviews with local agencies). While performing these functions, street sweeping also captures pollutants from the road surface that would otherwise get into surface water.

Studies have shown that street sweeping programs are most effective at capturing particles greater than 125 µm and are less effective for finer particles (<62 µm) (German & Svensson, 2002) (German and Svensson 2002). This is significant for pollution reduction because concentrations of many pollutants are highest in finer material. Sartor and Boyd (1972) who were among the first to survey street sweepings, collected debris from 12 urban communities in the United States. They documented that while most of the debris collected was made up of harmless inorganic material like silt and sand, and that pollutants were most highly concentrated in fine sediments (<43 µm). Particles <43 µm constituted only 5.9% of the total mass nevertheless contained over half of the samples' mass of heavy metals, three quarters of the pesticides, and one-third to one-half of the "algal nutrients" (including phosphates, a component of TP). Sartor and Boyd concluded that since street sweepers removed only 15% of these ultra-fine particles, street sweeping could not be useful as a pollution reduction strategy. A more recent study conducted in Prior Lake, MN, however, highlighted the potential for nutrient reduction potential by removing coarse particles. Street sweepings were collected over a two-year period then sorted by size and components. They confirmed that while much of swept material was inorganic, and that significant TP loading came from fine particles, coarse organic material that made up only 15% of the total mass contributed 36% of the sample's TP (Kalinosky, 2015).

The Prior Lake study was also able to identify temporal variation in TP wash off. By splitting up their TP loads by month and particle size, they were able to show that TP from fine particles peaked between February and April, which they contributed to finely crushed organic matter, soil, and

pollen deposited after spring snow melts (Figure 1). Meanwhile, TP from coarse organic material (i.e., leaf litter), peaked at even higher masses than fine loads during October and November (Figure 2). The study identified tree canopy cover as a predictor of recoverable TP regardless of the particle size. Since street sweepers are most effective at removing these large particles, they concluded that street sweeping regimes should target coarse organic material in the fall and post snow melt in the spring in areas with high percentages of tree canopy cover.

***Figure 1**. TP recovered in the fine fraction by month and year, all routes (Kalinosky, 2015).*

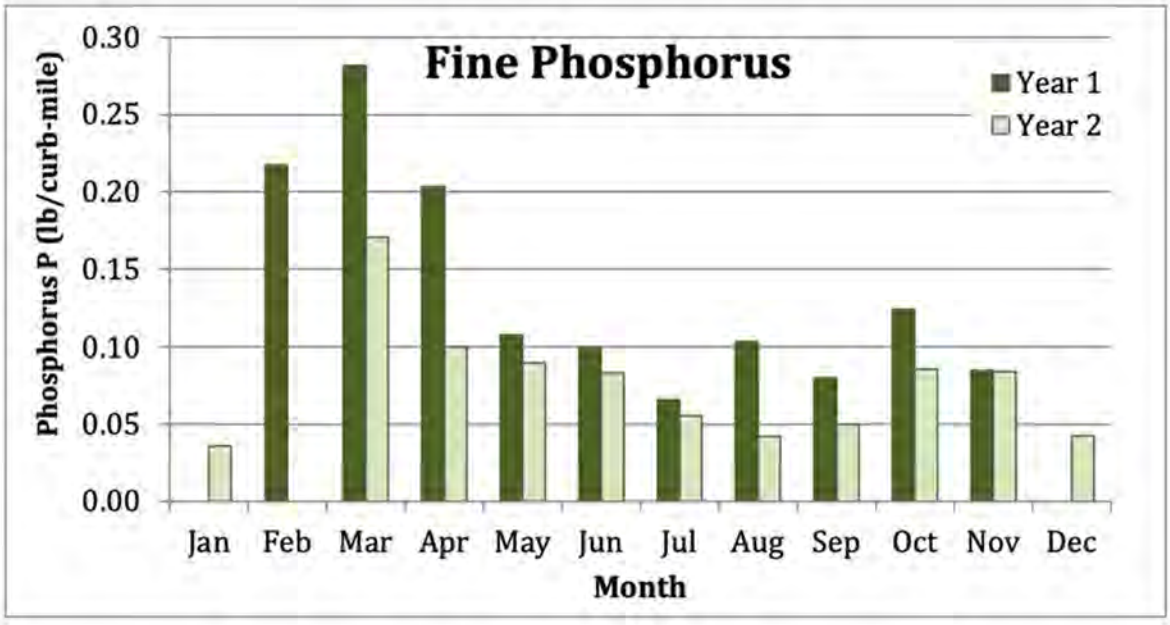
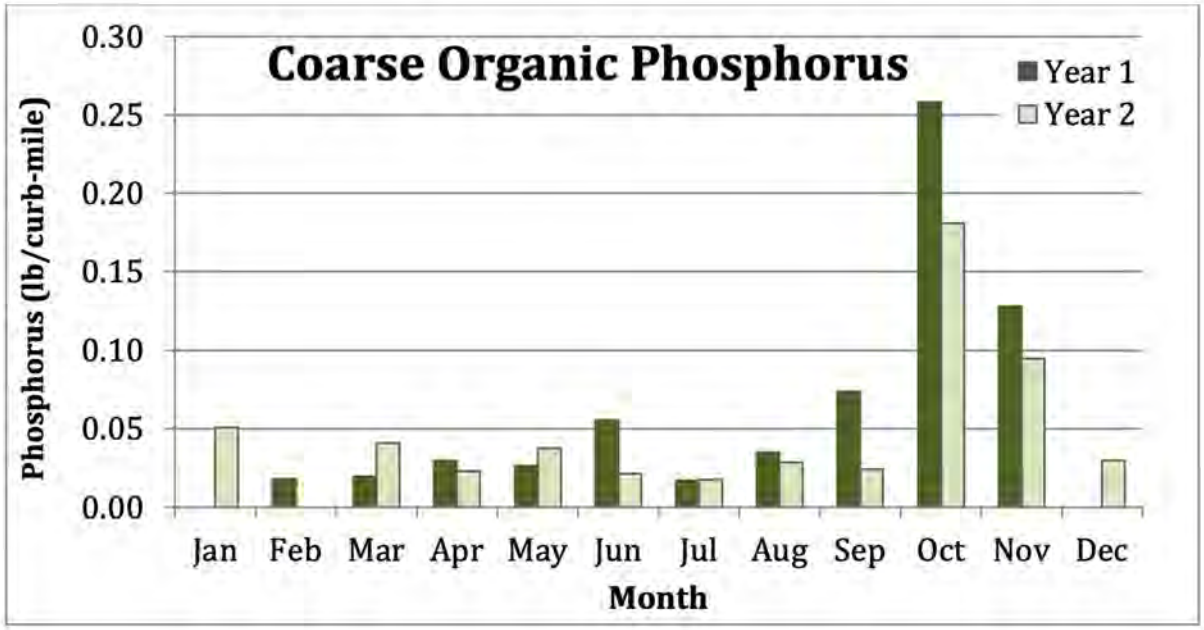


***Figure 2**. TP recovered in the coarse fraction by month and year, all routes (Kalinosky, 2015).*



Leaves from trees that make up coarse and fine organic matter on roads are rich in easily leachable TP. A study performed in Madison, WI determined that 54 µg of TP per gram of oak leaves and 140 µg of TP per gram of poplar leaves can be leached into water (Cowen & Lee, 1973). When leaves were cut up, they were shown to leach almost three times more TP than intact leaves. Leaching can occur quickly as well: another study found that maple leaves soaked in water lost up to 80% of their TP within 48 hours (Wang, Thompson, & Selbig, 2020). Furthermore Selbig (2016) found that 59% of the TP leaching from leaf litter biomass was in the dissolved fraction. Dissolved phosphorus is the most bioavailable form of TP.

While it's been made clear that leaves and collected street sweepings contain TP with the potential to affect surface water, studies have also supplied firm evidence that leaf management and street sweeping can affect stormwater TP concentrations. Selbig (2016) suggested that as much as 60% of annual TP in urban runoff comes from fall leaf litter (Figures 3 and 4). Stormwater TP concentrations were monitored within two comparable catchments ("test" and "control") in Madison, WI for two years (2013-2014 and 2014-2015). In 2013-2014 (the calibration phase) both the test basin and the control basin had no leaf collection or street sweeping. During the second year (2014-2015, the treatment phase), the control basin still had no leaf collection or street sweeping. The test basin had weekly street sweeping in April through September. In October and November, the test basin was subjected to weekly leaf collection, with street sweeping, and USGS personnel took steps to remove all organic detritus from the drainage area prior to a precipitation event. The study notes "While this extra measure of leaf removal exceeds the capabilities of most municipal leaf collection programs, it sets a benchmark for the greatest potential reduction of

nutrients in runoff through removal of leaves and other organic detritus from urban streets with high overhead tree canopy" (Selbig W. , 2016). Mean October concentrations of total and dissolved phosphorus in the test catchment during the treatment phase decreased by approximately 80% compared to the calibration phase (no management).

In 2020, Selbig performed another street sweeping study aimed at determining the best methods for nutrient removal through realistic applications of leaf collection and street sweeping. Nine catchments in three Wisconsin cities were observed. Catchment areas that were cleaned (leaf collection followed by street sweeping) on a weekly basis had a TP load reduction of 65-71% (Selbig, Buer, Bannerman, & Gaebler, 2020) compared to the control. Catchments where streets were swept every two weeks had approximately 21% more TP in their stormwater compared to those with weekly sweeping. Meanwhile, where only leaf collection occurred, there was no significant reduction of phosphorus. Because leaves can leach TP quickly, the study concluded that the method of leaf collection and street sweeping was less significant than the frequency of sweeping. More frequent sweeping or leaf pickup meant that leaves did not have as much of a chance to steep in stormwater.

The placement of structural stormwater practices may help remove leaves and coarse particulates from stormwater flows but cannot capture the dissolved fraction of nutrients that makes up the majority of TP in leaf litter affected stormwater. While structural practices can allow stormwater to settle out sediments and plants to absorb phosphorus, decaying plant matter can become another source of leachable phosphorous (Cowen & Lee, 1973; Wang, Thompson, & Selbig, 2020). Such structural practices also compete for limited space in the urban landscape and both construction and retro fitting are expensive. In contrast, street sweeping and leaf collection do not have a spatial footprint, are already ubiquitous and part of budgets. Better understanding of the reductions created by these source reduction practices and what the options are for further optimization is a potentially *low cost plan* that can be adopted by all units of government that manage roadways.

Figure 3. *Mean Total Phosphorus in Stormwater at Control and Test Basins during Calibration (2013-2014).*

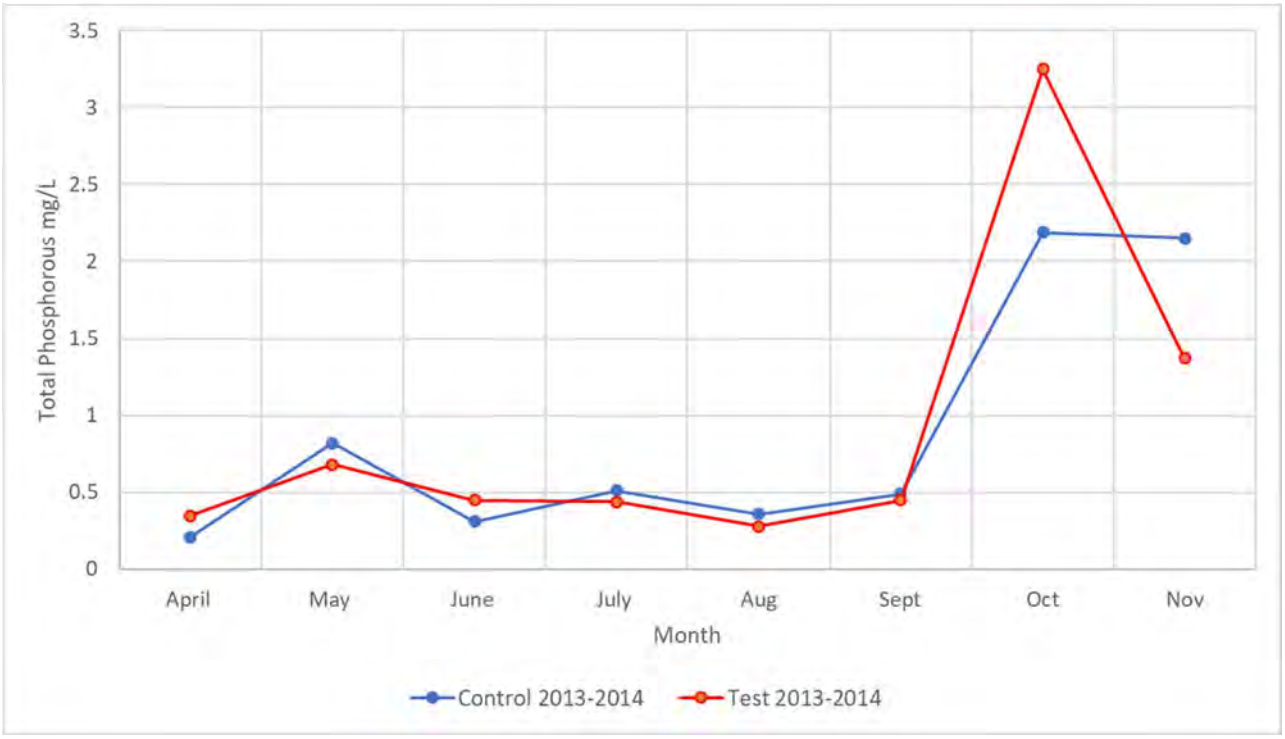
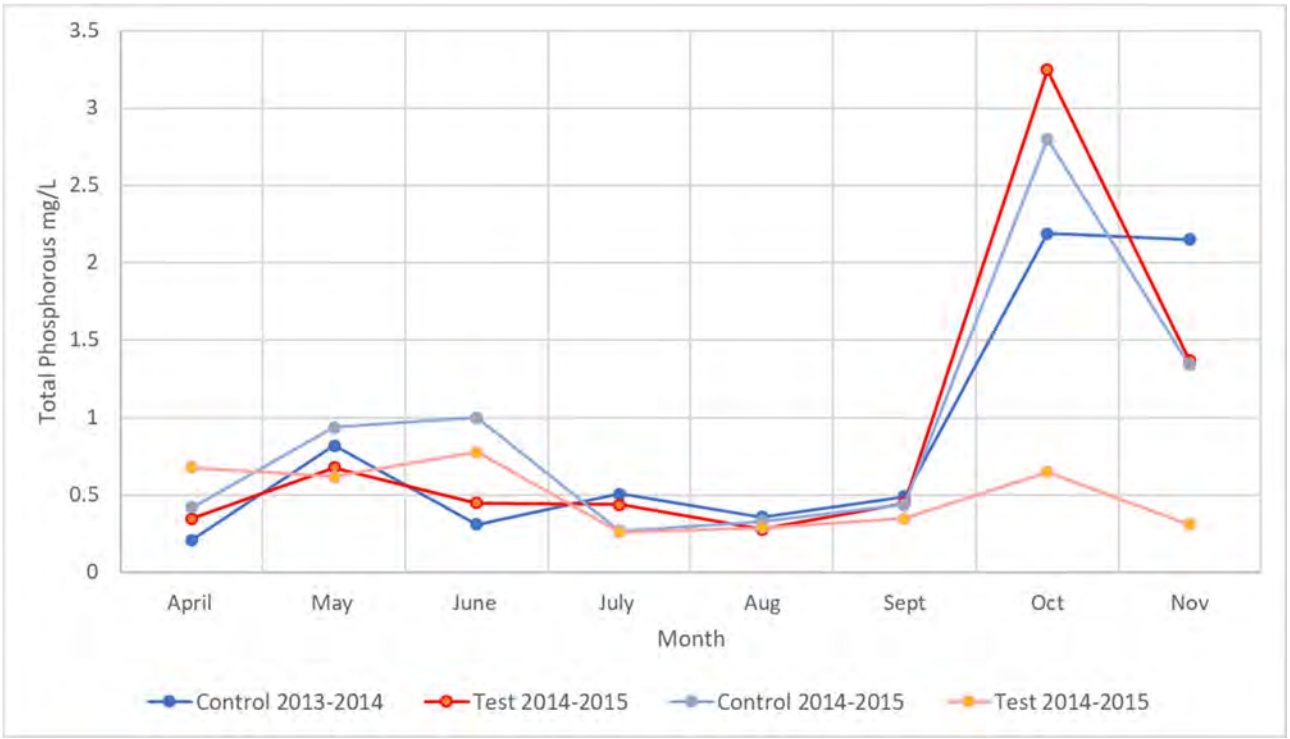


Figure 4. *Mean Total Phosphorous in Stormwater at Control and Test Basins during Calibration (2013-2014) and Test (2014-2015).*

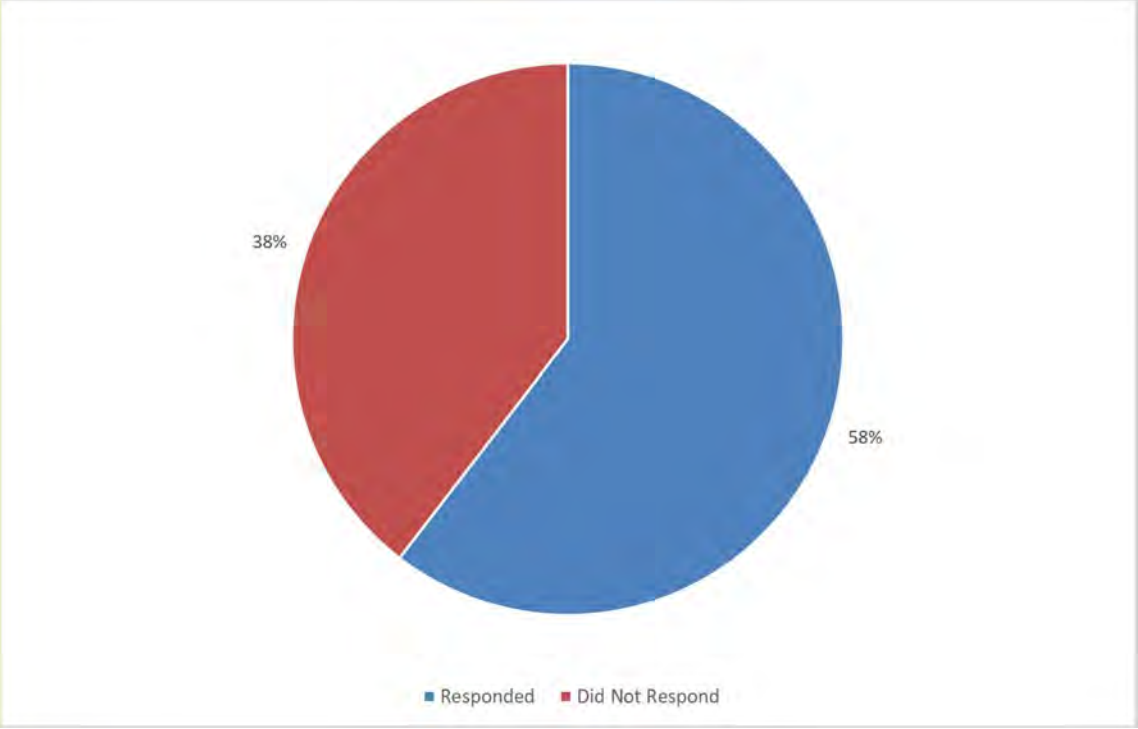


3. Survey of Local Street Sweeping and Leaf Litter Collection Practices

Street sweeping and leaf litter collection programs prevent TP from entering the storm drain system and local waterways (removed from the system). In 2021, a questionnaire was developed by the DRSCW's Projects Committee and members of the LDRWC to solicit information on the street sweeping and leaf litter practices that are currently performed in each community. A copy of the questionnaire can be found in Appendix A. It was based on a similar questionnaire, the Wisconsin MS4 Leaf Management Survey, developed for use in Wisconsin (provided by William Selbig USGS).

The questionnaire was sent out in mid-April 2021 to 75 DRSCW and LDWRC communities, 16 townships, and 4 agencies (95 total) that are responsible for street sweeping and/or leaf litter collection as shown in Map 1. A total of 48 communities, 6 Townships, and 1 agency provided a response to the questionnaire (Figure 5). The responding communities, townships, and agencies represent approximately 77% of the total watershed area. A summary of the questionnaire responses can be found in Appendix B. Appendix C contains the list of communities, townships, and agencies that received the questionnaire and if a response was/was not provided.

Figure 5. *Community, Township, and Agency Questionnaire Responses.*



3.1 Street Sweeping Practices

Plate 1. *LRS Clean Sweep, Photo courtesy of Woodridge Public Works.*

The Streep Sweeping portion of the questionnaire asked if a community, township and agency has a street sweeping program, who performs the street sweeping (unit of government or contractor), and what type of street sweeper is used during the street sweeping (Plate 1). Respondents also provided how many centerline miles the street sweeping program covers and what percentage of the centerline miles were curb and gutter. The frequency of sweeping was also reported by month and land type (i.e., residential, arterial, and commercial) and it was noted if the community increases sweeping in the fall. The disposal method of street sweeping debris was also asked.

Of the responses received, 47 communities, 3 townships, and 1 agency have a street sweeping program in place. Table 2 summaries the information obtained on local street sweeping practices through the questionnaire.

Table 2. *Summary of Street Sweeping Information Collected.*

Community	Centerline Miles Swept	Percentage of centerline miles that are curb/gutter	Sweeper Type	Increased Sweeping in Fall
Addison	96	75%	Mechanical brush with vacuum assist	Yes
Barrington	50	66%	Mechanical brush with vacuum assist	Yes
Bartlett	140	100%	Regenerative air with mechanical brush sweeper/Mechanical brush sweeper	Yes
Bensenville	59	100%	Mechanical brush sweeper/Mechanical brush with vacuum assist	Yes
Berkeley	22	100%	Regenerative air with mechanical brush sweeper	Yes
Bloomingdale	125	75%	Mechanical brush with vacuum assist	Yes
Bolingbrook	305	100%	Mechanical brush sweeper	Yes

Community	Centerline Miles Swept	Percentage of centerline miles that are curb/gutter	Sweeper Type	Increased Sweeping in Fall
Brookfield	57	100%	Mechanical brush with vacuum assist	No
Carol Stream	112	100%	Regenerative air with mechanical brush sweeper	Yes
Channahon	83	66%	Mechanical brush sweeper	No
Crest Hill	39	100%	Mechanical brush sweeper	No
Downers Grove	120	66%	Regenerative air with mechanical brush sweeper	Yes
Downers Grove Township	35	50%	Mechanical brush sweeper	No
Elk Grove Village	128	100%	Mechanical brush sweeper	Yes
Elmhurst	115	100%	Mechanical brush with vacuum assist	Yes
Elwood	30	75%	Mechanical brush with vacuum assist	No
Frankfort	100	100%	Regenerative air with mechanical brush sweeper	No
Glen Ellyn	83	100%	Mechanical brush sweeper	Yes
Glendale Heights	72	100%	Regenerative air with mechanical brush sweeper	Yes
Hanover Park	100	100%	Mechanical brush sweeper	Yes
Hoffman Estates	160	75%	Regenerative air with mechanical brush sweeper	No
Illinois DOT	2700	33%	Mechanical brush sweeper	No
Itasca	43	75%	Mechanical brush sweeper	Yes
Joliet	584	100%	Mechanical brush sweeper	Yes

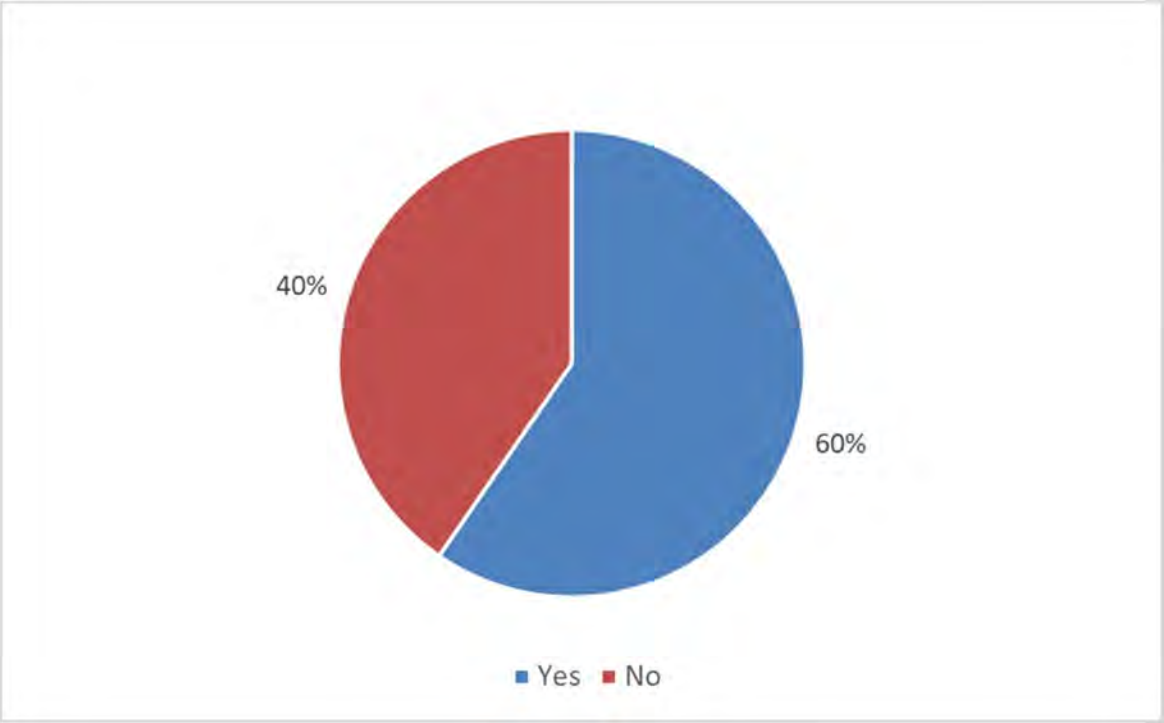
Community	Centerline Miles Swept	Percentage of centerline miles that are curb/gutter	Sweeper Type	Increased Sweeping in Fall
Lisle	45	66%	Mechanical brush with vacuum assist	No
Lockport	103	100%	Mechanical brush sweeper	Yes
Lombard	145	100%	Mechanical brush sweeper	Yes
Manhattan	75	75%		No
Milton Township	25	100%	Mechanical brush sweeper	Yes
Minooka	63	75%	Mechanical brush with vacuum assist	No
Naperville	400	100%	Regenerative air with mechanical brush sweeper	No
Naperville Township	8	50%	Mechanical brush sweeper/Mechanical brush with vacuum assist	No
New Lenox	130.25	75%	Regenerative air with mechanical brush sweeper	Yes
North Riverside	33	100%	Mechanical brush sweeper	Yes
Oak Brook	55	66%	Regenerative air with mechanical brush sweeper	No
Oakbrook Terrace	73	100%	Mechanical brush sweeper	No
Orland Park	40	100%	Mechanical brush sweeper	No
Palatine	156	75%	Mechanical brush sweeper	Yes
Plainfield	196	75%	Regenerative air with mechanical brush sweeper/Mechanical brush sweeper	No
Romeoville	135	100%	Mechanical brush sweeper	Yes

Community	Centerline Miles Swept	Percentage of centerline miles that are curb/gutter	Sweeper Type	Increased Sweeping in Fall
Roselle	75	75%	Regenerative air with mechanical brush sweeper	No
Schaumburg	219	75%	Regenerative air with mechanical brush sweeper	Yes
Shorewood	60	100%	Mechanical brush with vacuum assist	Yes
Streamwood	96	100%	Regenerative air with mechanical brush sweeper	Yes
Warrenville	28	100%	Mechanical brush sweeper	Yes
Wayne Township	NA	NA	NA	NA
West Chicago	90	100%	Regenerative air with mechanical brush sweeper	Yes
Western Springs	97	100%	Mechanical brush with vacuum assist	No
Wheaton	167	75%	Mechanical brush sweeper/Mechanical brush with vacuum assist	Yes
Winfield	16	100%	Mechanical brush with vacuum assist	No
Winfield Township	NA	NA	NA	NA
Wood Dale	48	75%	Mechanical brush with vacuum assist	Yes
Woodridge	195	100%	Mechanical brush with vacuum assist	Yes
York Township	NA	NA	NA	NA

The questionnaire also asked respondents to provide information on the percentage of centerline miles in their jurisdiction that have curb and gutter. This information is important as streets with curb and gutter typically drain into storm sewer systems that discharge directly to surface water with little to no pollutant filtering. Of the communities, townships, and agencies that responded, 29 (56%) have 100% curb/gutter roads, 15 (29%) have 75% curb/gutter roads, 5 (10%) have 66% curb/gutter roads, 2 (4%) have 50% curb/gutter roads, and 1 (2%) has 33% curb/gutter roads. Roads that do not have curb and gutter typically have roadside grassed swales.

Respondents were also asked if street sweeping efforts were increased in the fall season to due to the increased presence of leaf litter in the roadway. Of the communities, townships, and agencies that responded, 60% increase sweeping during the fall season (Figure 6).

Figure 6. *Number of Communities and Townships that Increase Sweeping in the Fall.*



Data obtained from the questionnaire was also used to assess when communities, townships, and agencies begin their street sweeping operations and how many times per month street sweeping is conducted. Figure 7 depicts the number of units of government responsible for roadways reporting active street sweeping by month and land type (residential areas, arterial roads, commercial/industrial areas, and central business district). The majority of the communities, townships, and agencies reported that that street sweeping is conducted between May and November. Figure 8 shows the distribution of street sweeping event frequencies per month in residential areas.

Figure 7. *Number of Communities, Townships, and Agencies Reporting Active Street Sweeping by Month and Land Type.*

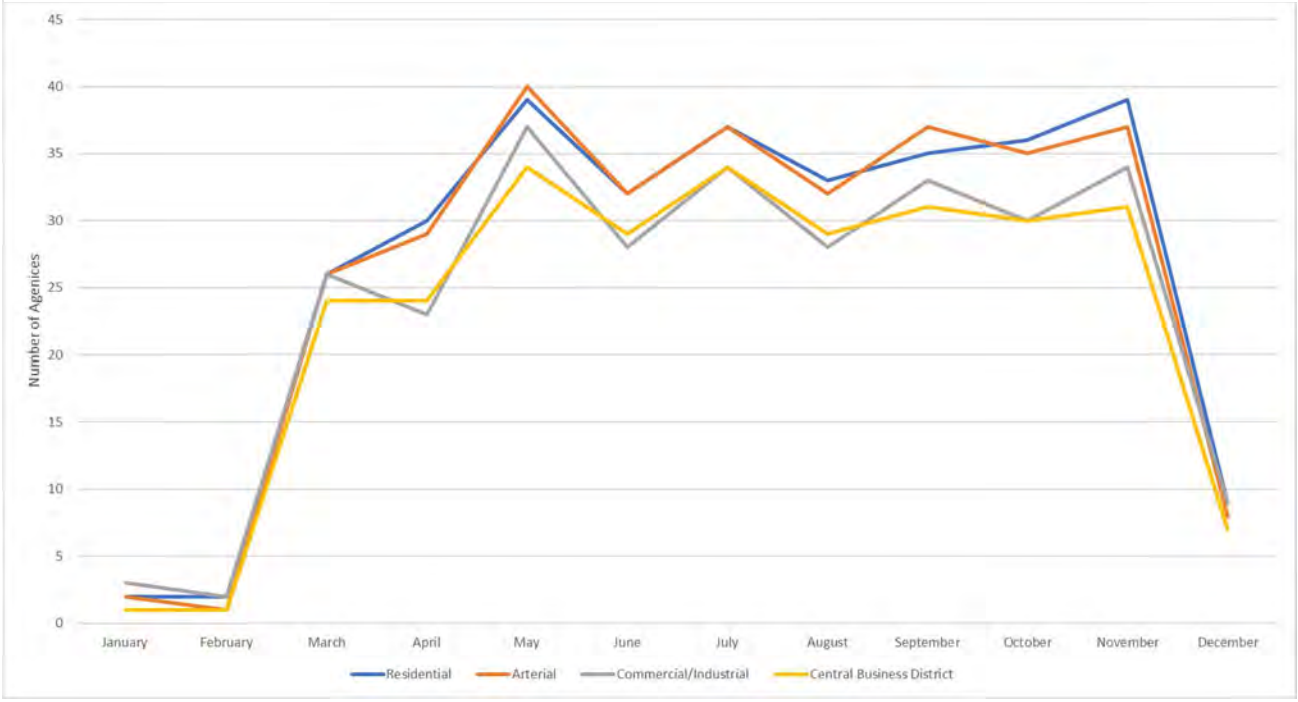
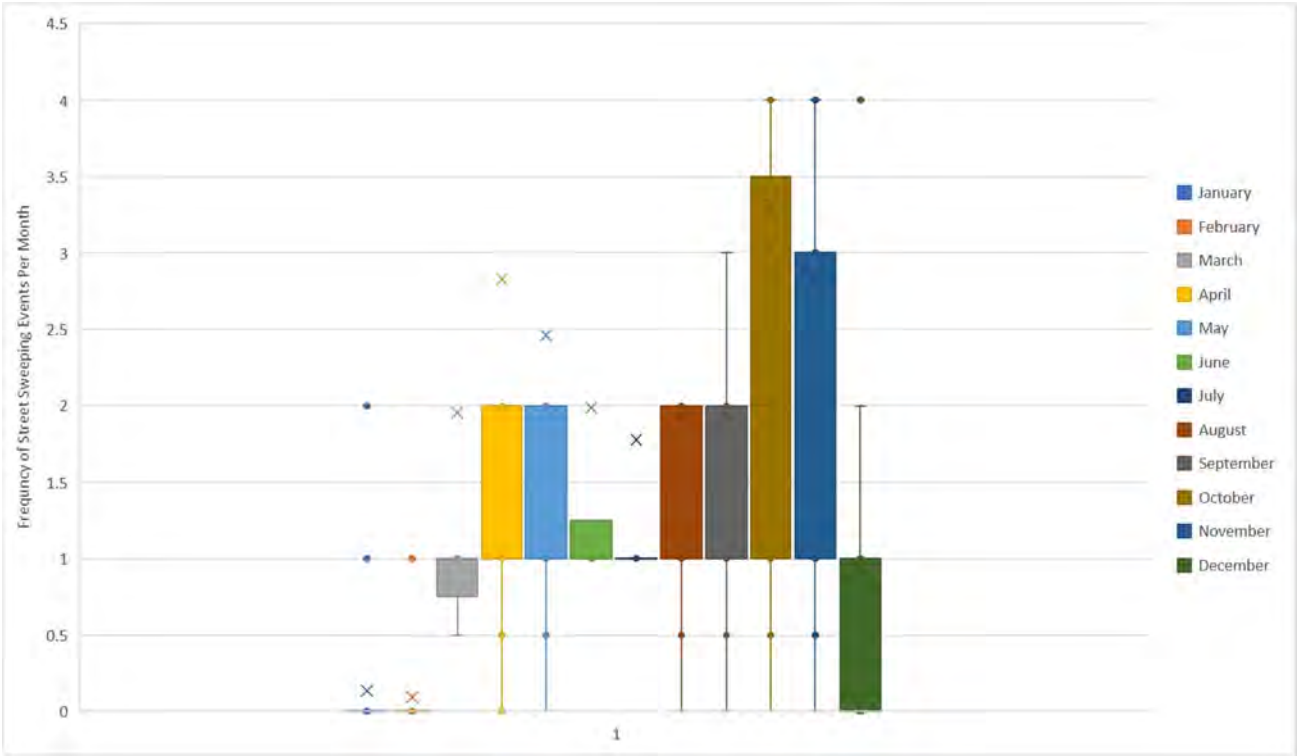


Figure 8. *Distribution of Street Sweeping Event Frequencies per Month in Residential Areas.*



3.2 Leaf Litter Collection Practices

The questionnaire also collected information on leaf collection programs conducted by study area communities, townships, and agencies. Respondents provided information including if a program was in place, who collects the leaves, where the leaves are placed by residents for pickup, and if residents place leaves in bags/bins or directly on the street (Plate 2). They also indicated the frequency of leaf collection and if streets are swept right after collection. The questionnaire asked how many centerline miles the leaf litter collection program covers and what percentage of the centerline miles were curb and gutter. The frequency of leaf litter collection was also reported by month and land type (i.e., residential, arterial, and commercial) and it was noted if the community alters leaf litter collection schedule due to rainfall. Communities, townships, and agencies also provide details on methods of resident notification on upcoming leaf litter collection efforts and education on the benefits of mulching/composting leaves.

Plate 2. *Leaf Collection in Palatine; https://www.palatine.il.us/235/Leaf-Collection.*

All 48 of the communities and 2 of the townships that submitted completed questionnaires have a leaf litter collection program. It should be noted that several communities misunderstood Question #12: “Do you have a leaf collection program for residents?” on the questionnaire, and they incorrectly answered “no”. These communities do not have a city/village/town run program but instead utilize their contracted waste hauler to collect leaves as a part of their municipal garbage service. Information on these programs was obtained through internet searches or by direct contact with the community or township. These municipalities are denoted with a * in Table 3.

Table 3 summarizes the leaf litter data collected. Leaf litter and leaf collection information was used to create a visual representation of current leaf collection practices in the watershed by community (Map 2) and township (Map 3).

Table 3. *Summary of Leaf Collection Practices.*

Community	Leaf Collection Program	Collection type	Follow w/Street Sweeping
Addison	Yes	In bags/bins	No
Barrington*	Yes	In bags/bins	No
Bartlett*	Yes	In bags/bins	No
Bensenville*	Yes	In bags/bins	No
Berkeley	Yes	In bags/bins	No
Bloomingdale*	Yes	In bags/bins	No
Bolingbrook	Yes	In bags/bins	No
Brookfield	Yes	Directly on parkway	Yes
Carol Stream	Yes	In bags/bins	No
Channahon	Yes	In bags/bins	No
Crest Hill*	Yes	In bags/bins	No
Downers Grove*	Yes	In bags/bins	No
Downers Grove Township*	No	NA	NA
Elk Grove Village	Yes	Directly on ground/street	Yes
Elmhurst	Yes	In bags/bins	No
Elwood*	Yes	In bags/bins	No
Frankfort	Yes	Directly on parkway	Yes
Glen Ellyn	Yes	In bags/bins	Yes
Glendale Heights	Yes	In bags/bins	Yes
Hanover Park*	Yes	In bags/bins	No
Hoffman Estates*	Yes	In bags/bins	No
Illinois DOT	No	NA	NA
Itasca	Yes	In bags/bins	Yes
Joliet*	Yes	In bags/bins	No
Lisle	Yes	Directly on parkway	Yes
Lockport	Yes	Directly on parkway	Yes
Lombard	Yes	In bags/bins	Yes
Manhattan	Yes	In bags/bins	No
Milton Township	No	NA	NA
Minooka*	Yes	In bags/bins	No
Mokena	Yes	In bags/bins	No
Naperville	Yes	Directly on ground/street	Yes
Naperville Township	Yes	Directly on parkway	No
New Lenox	Yes	Directly on parkway	Yes
North Riverside*	Yes	In bags/bins	No
Oak Brook	Yes	Directly on parkway	Yes
Oakbrook Terrace	Yes	In bags/bins	No
Orland Park	Yes	In bags/bins	No

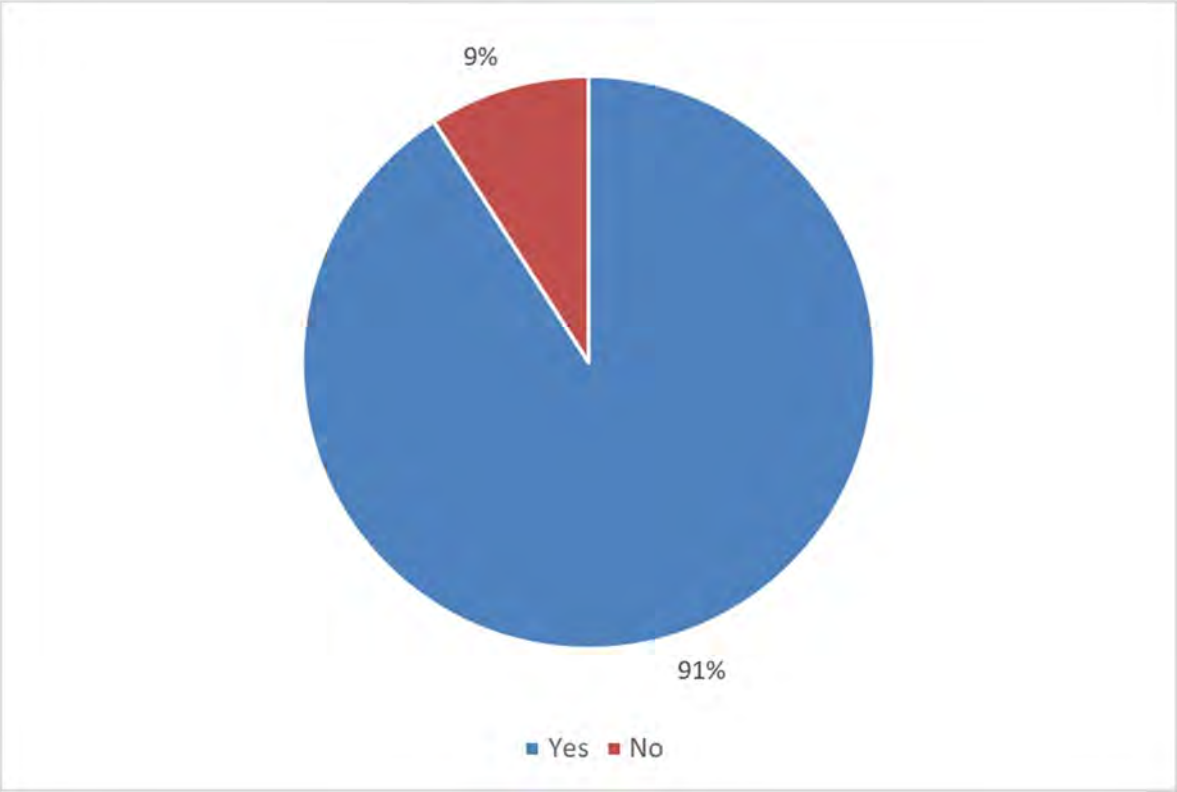
Community	Leaf Collection Program	Collection type	Follow w/Street Sweeping
Palatine	Yes	Directly on ground/street	Yes
Plainfield*	Yes	In bags/bins	No
Romeoville*	Yes	In bags/bins	No
Roselle*	Yes	In bags/bins	No
Schaumburg*	Yes	In bags/bins	No
Shorewood	Yes	Directly on parkway	Yes
Streamwood	Yes	In bags/bins	No
Warrenville*	Yes	In bags/bins	No
Wayne Township*	No	NA	NA
West Chicago	Yes	In bags/bins	No
Western Springs	Yes	Directly on ground/street	No
Wheaton*	Yes	In bags/bins	No
Winfield	Yes	In bags/bins	No
Winfield Township	Yes	Directly on parkway	No
Wood Dale	Yes	In bags/bins	No
Woodridge	Yes	In bags/bins	Yes
York Township	No	NA	NA

*Information on leaf collection program was obtained via internet searches or direct follow-up with the community or township.

Figures 9, 10, and 11 below show the number of communities and townships that responded that have leaf litter programs in place, the type of leaf collection, and if the community/township follows collection with street sweeping. 37 (74%) of the communities collect leaves though a bagging program. Nine (18%) of the responding communities pile leaves on the parkway and four (8%) pile leaves on the street. Fifteen (30%) communities street sweep after leaf collection. Additionally, 32 communities, township and agencies responded to the inquiry on whether or not leaf collection efforts were modified due to forecasted rainfall. Of those respondents, 28 make no changes to their collection schedule (88%), 2 collected leaves before the predicted rainfall (6%), and 2 collected after the predicted rainfall (2%).

Thirty two (32) communities, township and agencies responded to the inquiry on whether or not their agencies educational material encouraged composting and/or mulching of leaves. Of those that responded, 29 communities, townships, and agencies (90%) do promote composting and/or mulching of leaves through their educational materials.

Figure 9. *Communities Townships with a Leaf Collection Program in Place.*



MUNICIPALITIES LEAF PROGRAM

MAP 2: LEAF COLLECTION PRACTICE BY COMMUNITY

DUPAGE RIVER SALT CREEK WORKGROUP

Barrington
Deer Park
Inverness
Palatine
Arlington Heights
Rolling Meadows
Hoffman Estates
Streamwood
Schaumburg
Elk Grove Village
Hanover Park
Roselle
Itasca
Bartlett
Wood Dale
Bensenville
Bloomingdale
Wayne
Franklin Park
Carol Stream
Glendale Heights
Addison
St Charles
Northlake
Stone Park
Melrose Park
Elmhurst
Villa Park
Berkeley
Bellwood
Geneva
West Chicago
Winfield
Lombard
Glen Ellyn
Hillside
Maywood
Wheaton
Broadview
Oakbrook Terrace
Westchester
North Riverside
Batavia
Oak Brook
La Grange Park
Warrenville
Brookfield
Lyons
Clarendon Hills
Western Springs
La Grange
Downers Grove
Lisle
Hinsdale
Naperville
Westmont
Aurora
Woodridge
Darien
Bolingbrook
Oswego
Romeoville
Plainfield
Orland Park
Lockport
Crest Hill
Mokena
Joliet
Shorewood
New Lenox
Rockdale
Frankfort
Minooka
Channahan
Manhattan
Elwood

County of DuPage, Esri, HERE, Garmin, INCREMENT P, USGS, EPA

N

- In Bags/Bins (Follow w/ Street Sweeping)
- In Bags/Bins (Do NOT Follow w/ Street Sweeping)
- Directly on Ground/Street (Follow w/ Street Sweeping)
- Directly on Ground/Street (Do NOT Follow w/ Street Sweeping)
- Directly on Parkway (Follow w/ Street Sweeping)
- No Response
- ProjectArea

0 2.5 5 10 Miles

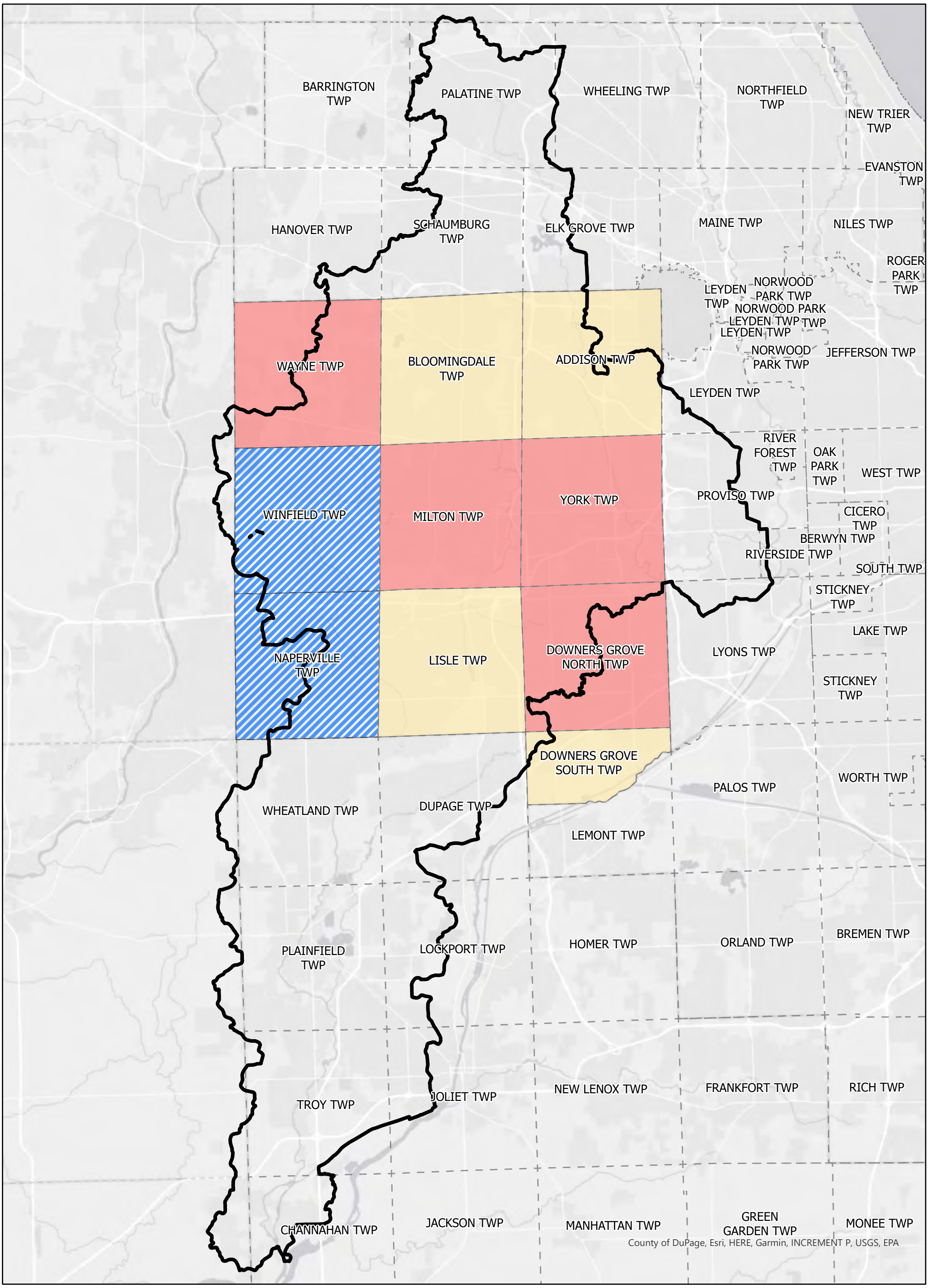
DuPage River Salt Creek Workgroup

BAXTER & WOODMAN Consulting Engineers

TOWNSHIPS LEAF PROGRAM

MAP 3: LEAF COLLECTION PRACTICE BY TOWNSHIP

DUPAGE RIVER SALT CREEK WORKGROUP



N

0 2.5 5 10 Miles

- Directly on Parkway (Do NOT Follow w/ Street Sweeping)
- No Leaf Collection Program
- No Response
- ProjectArea
- Township Boundary

DuPage River Salt Creek Workgroup

BAXTER & WOODMAN Consulting Engineers

Figure 10. *Type of Leaf Collection.*

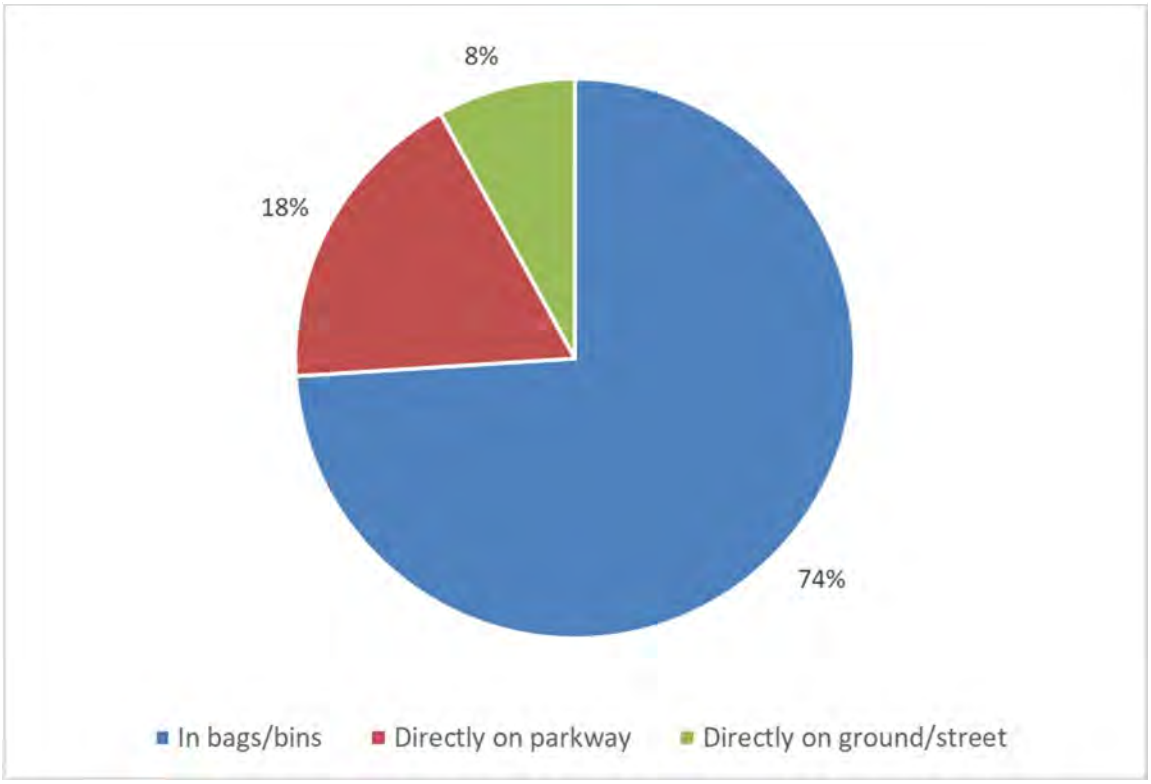
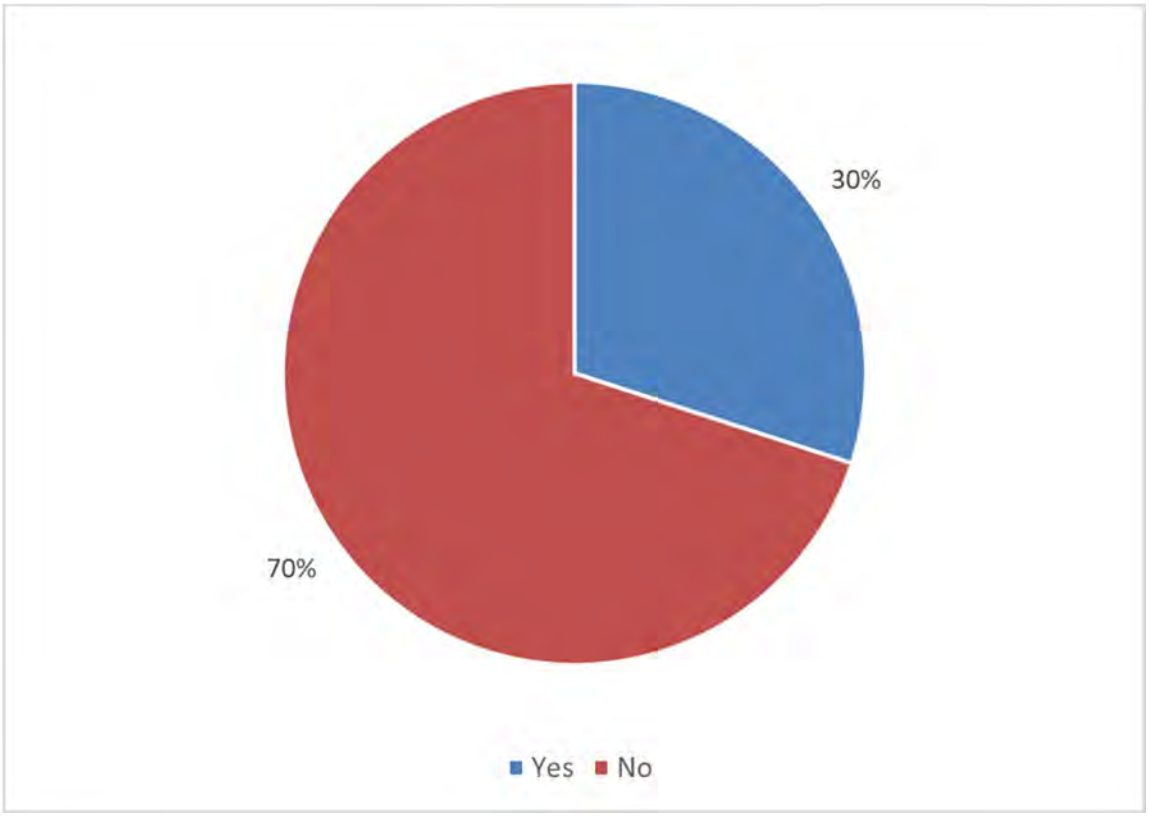


Figure 11. *Communities and Townships that Follow Leaf Collection with Street Sweeping*



A request for data on the mass of leaf collected by each community, township, and agency was also submitted to all who received a questionnaire. Eight communities responded to the request and provide data on the mass of leaves collected. The mass data from 2020 is include in Table 4. All of the mass data collected is summarized in Appendix D. The pounds (lb) of TP collected by each community was calculated using Volume-to-Weight Conversion Factors provided by the United States Environmental Protection Agency (US EPA, 2007 updated in 2016).

***Table 4**. 2020 Collected Leaf Mass Data.*

Community	lbs of Leaves	lb of TP
Elk Grove Village	1,835,904	99.05
Lisle	2,008,020	108.34
Addison	346,964	18.72
Streamwood	194,00	1.05
West Chicago	174,165	9.40
Lockport	614,700	33.16
Glen Ellyn	239,050	12.90
New Lenox	863,995	46.61

4. Effective Canopy Cover

Several studies have noted the strong correlation between canopy overhanging roads and the concentration of phosphorous in street sweepings (Kalinosky, 2015; Selbig W. , 2016). This relationship suggests that a major factor in optimizing the application of leaf litter and street sweeping resources to capture TP from streets would be to focus such efforts of high canopy areas. To better understand the distribution of canopy cover leaf litter on roads, the DRSCW and LDRWC developed a spatial file showing the current distribution of tree canopy overhanging roadways. Canopy coverage for the study area was generated using the tree canopy class of the high resolution land cover data developed by the Spatial Analysis Laboratory (SAL) of the University of Vermont with the assistance of The Morton Arboretum. The data set obtained provided complete coverage of the study area. The dataset was created using imagery, LiDAR, and ancillary vector data sets to populate an object based image analysis system supported by tens of thousands of manual corrections.

Road right-of-way (ROW) boundary, municipal boundary and township boundary data was obtained from each of the counties in the study area (Lake Co., Cook Co., DuPage Co, Kane Co. and Will Co.). The right-of-way (ROW) files were then merged into a single file. The ROW data was then adjusted by overlaying it with the tree canopy layer to identify the canopy coverage overhanging the ROW. A file was then created containing the common area of these two spatial files for the whole of the project area. This GIS file will be referred to as the effective canopy cover in the rest of the report.

Effective canopy cover percentages were then calculated by total roadway area, by watershed area, and by management agency. The agency effective canopy cover data was then coded for land use. Land Use Classification data was created by Chicago Metropolitan Agency for Planning. The watershed land use map will be available from DRSCW. To classify by land use, an Esri geoprocessing tool (Fishnet) was used to create a 10'x10' grid in the Effective canopy cover layer. Another geoprocessing tool (Near) was used to assign the closest land use category to each cell within the file. Through a series of joins and merges (dissolves), the effective canopy cover was classified by land use and municipality ownership.

The Effective Canopy Cover data set can be found in Appendix E and an example is shown below in Tables 5 and 6. Examples of the land use classification and canopy data can be found in Map 4 and Map 5. The land use classification and canopy data included in Tables 5 and 6 and Maps 4 and 5 are not meant to be representative of the Effective Canopy Cover data for the watershed as a whole but were selected to show a variety of land uses and canopy cover data within two example areas.

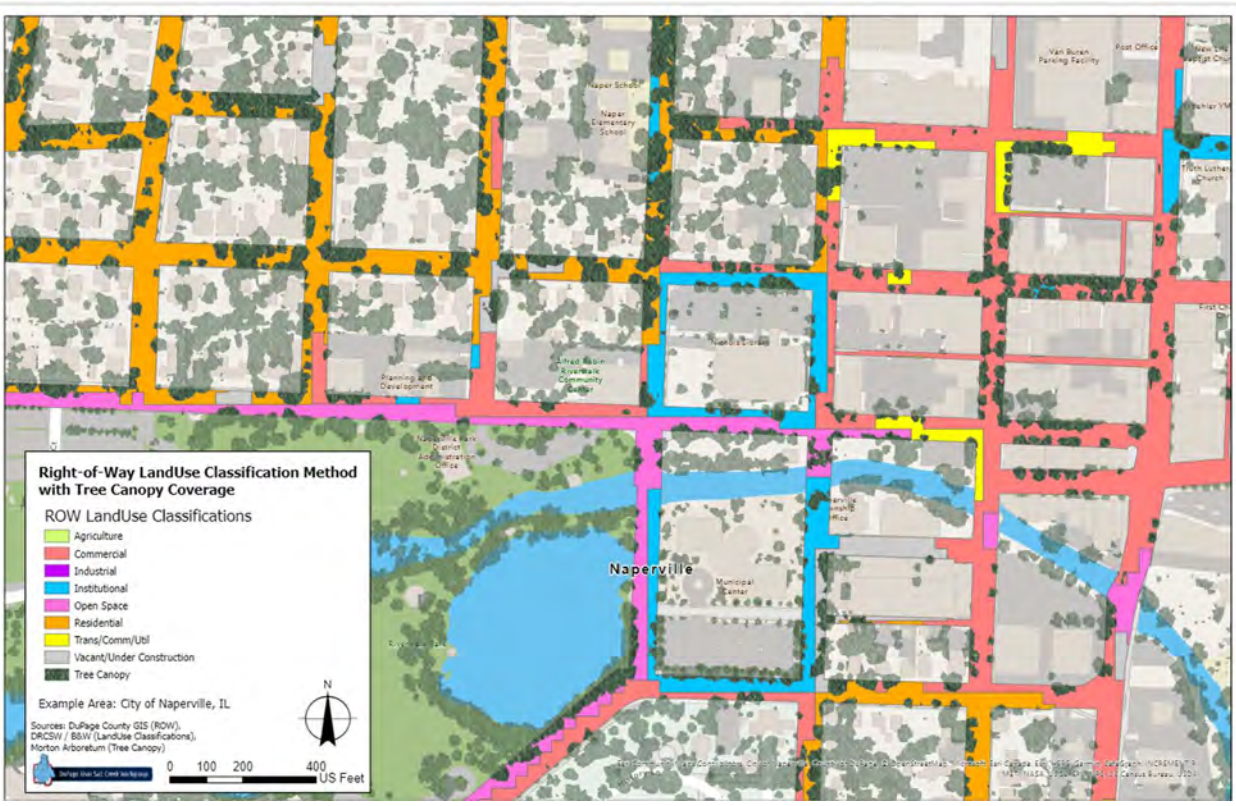
Table 5. *Example of Naperville's Effective Canopy Cover Data.*

Land Use Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	207,184	4,758	2%
Commercial	1,779,245	86,616	5%
Industrial	271,959	7,744	3%
Institutional	616,758	51,152	8%
Open Space	727,095	82,632	11%
Residential	575,792	21,501	4%
Transportation/Utilities	13,956,352	3,332,626	24%
Other	446,465	17,068	4%
Total	18,580,850	3,604,098	19%

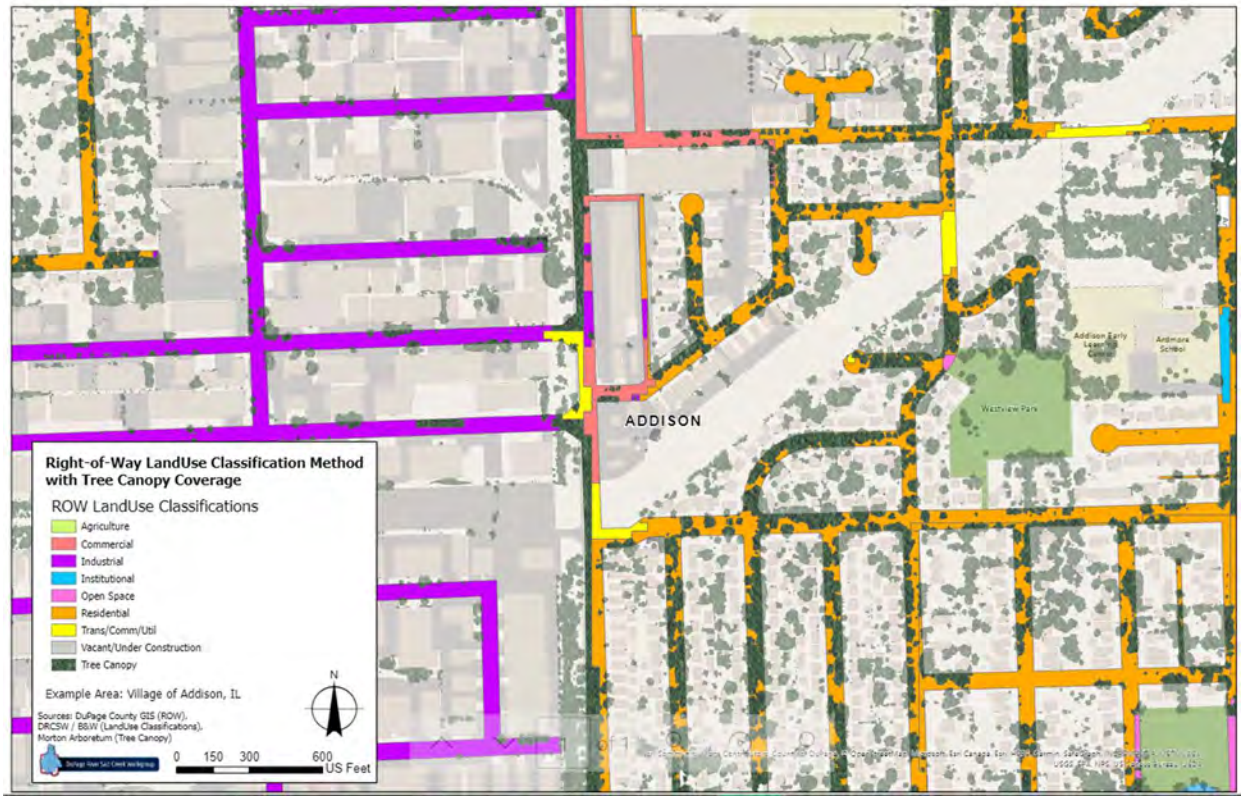
Table 6. *Example of Addison's Effective Canopy Cover Data.*

Land Use Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	2,630	0	0%
Commercial	427,785	18,907	4%
Industrial	847,573	45,938	5%
Institutional	151,188	15,375	10%
Open Space	538,484	74,856	14%
Residential	294,621	25,732	9%
Transportation/Utilities	2,757,671	830,226	30%
Other	195,925	7,529	4%
Total	5,215,877	1,018,564	20%

Map 4. *Land Use Classification and Canopy Data for City of Naperville.*



Map 5. *Land Use Classification and Canopy Data for Village of Addison.*



The Effective Canopy Cover dataset shows there is wide variability in conditions across agencies. This data (Appendix E) was used to further characterize the distribution of effective canopy cover by land use types across the study area. A total of 83 units of government responsible for roadways account for a ROW area of 8.8 square miles. 2.1 square miles of this is covered by tree canopy giving the study area an average of 24% effective canopy cover along roads for all communities, townships, and agencies across all land use types.

The Land Use data utilized in the analysis identified eight different land use types, which varied in area (Figure 12) and effective canopy cover (Figure 13). The most prominent land use is residential, having both the highest proportion of the study area (66%), as well as the highest percent effective canopy coverage (31%). Open Space (16% effective canopy cover) and Institutional (13% effective canopy cover) designated areas have high effective canopy coverage, but since they contribute significantly less area than Residential across the study area, the amount of effective canopy cover they contribute overall is very low (1.7% and 3.5% respectively). On the other end, Agriculture (4%) and Industrial (7%) have the least effective canopy cover, and contribute very little ROW to the total study area. Commercial (7%), and Transportation/Communication/Utility (6%), and Other (9.1%) land use types fall in the middle of the spectrum with moderate contributions of effective canopy cover and ROW area.

Variability in area and percent effective canopy coverage will also affect the management responses of communities, townships, and agencies. For example, within the Residential land use type which accounts for the majority of Effective Canopy Coverage, coverage ranges from as high as 62% down to 1%. This suggests effective canopy coverage should be used on community level rather than a watershed-wide basis for determining street sweeping and leaf litter collection resource allocation.

Figure 12. *Percentage of ROW by Land Use Type.*

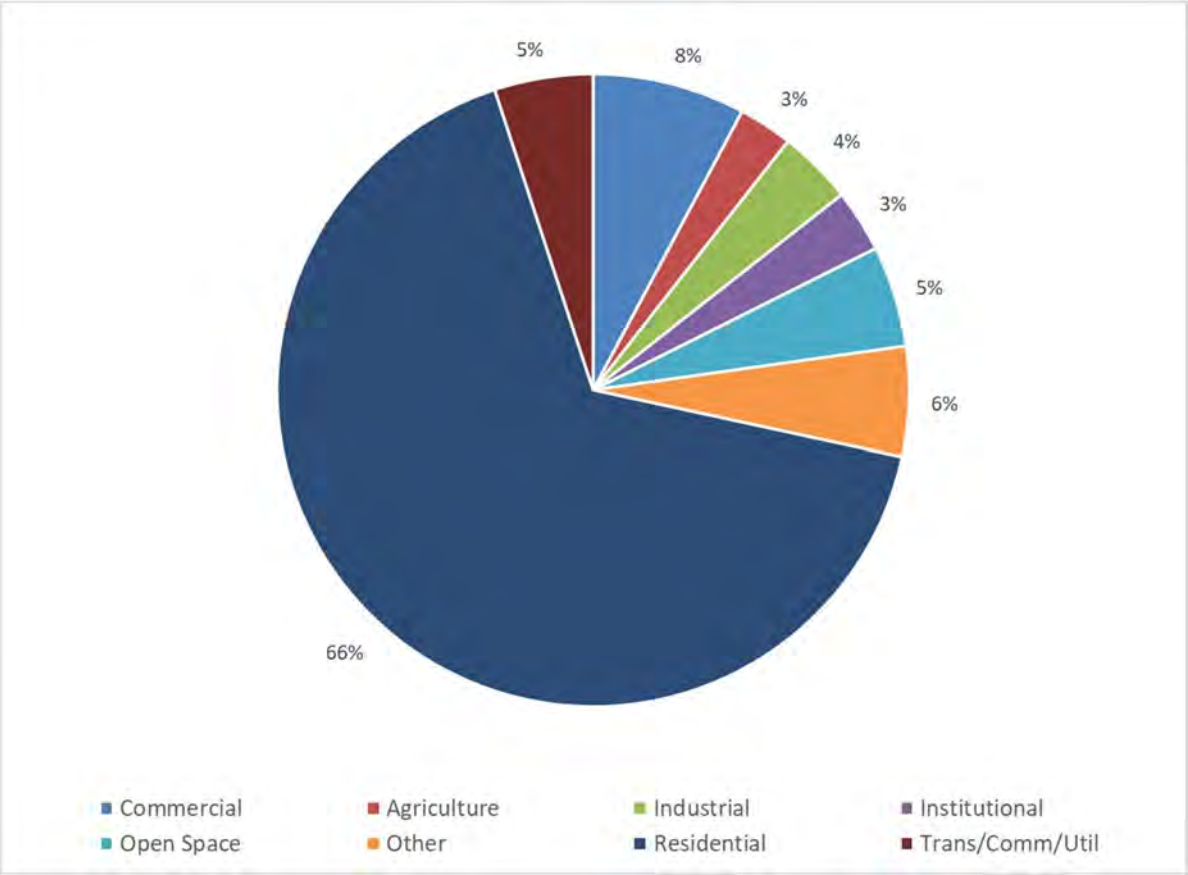
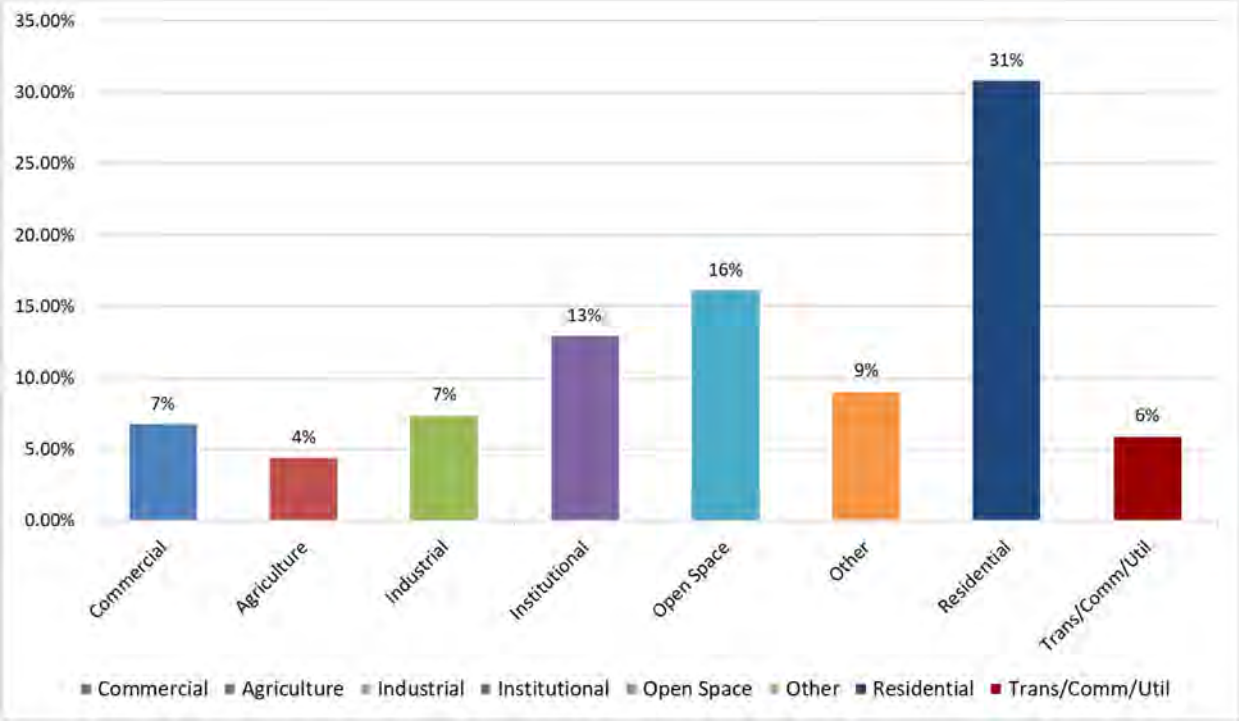


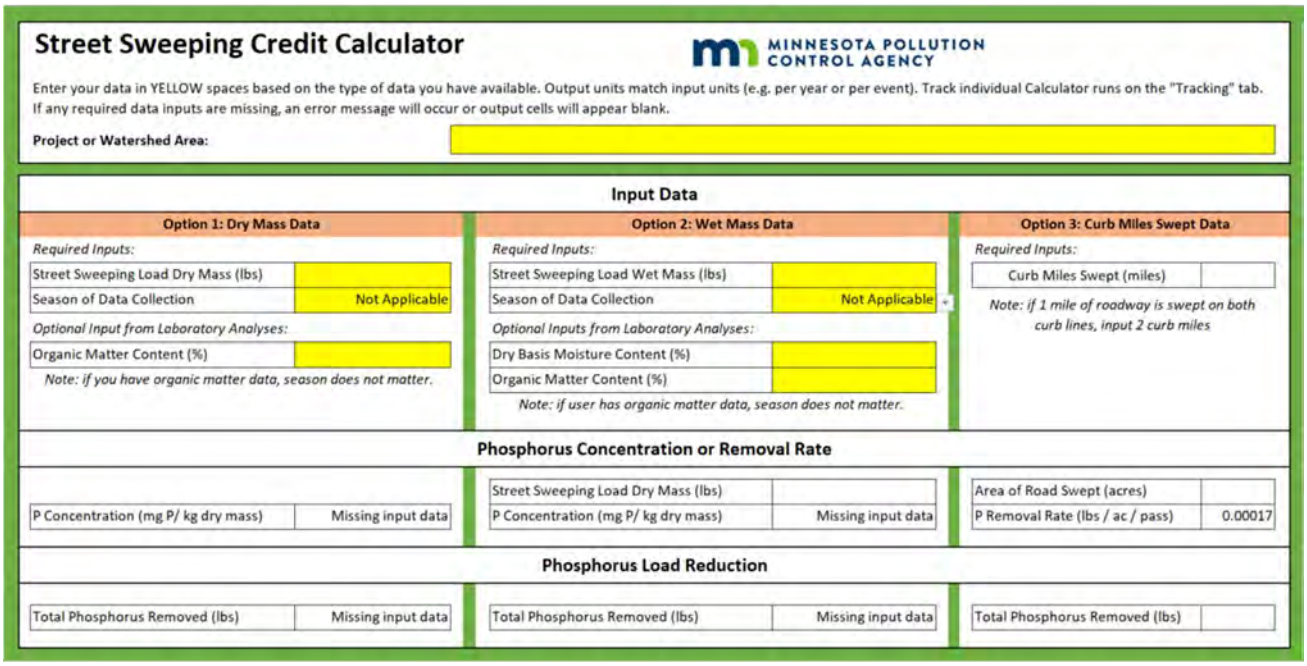
Figure 13. *Effective Canopy Cover Percentage by Land Use Type.*



5. Calculation of TP Removed by Existing Street Sweeping Practices

The total phosphorus being removed in the project area by current street sweeping efforts was estimated using the Minnesota Pollution Control Agency (MPCA) Street Sweeping Tool and the information obtained from the questionnaire. The MPCA Tool was developed for generating credits for street sweeping agencies in Minnesota. The tool was calibrated using observed TP removal rates from the Prior Lake street study previously referenced. The tool can estimate the TP removed using three data inputs: by wet mass, by dry mass, or by curb miles (Figure 14). For this study, the third option (by curb miles) had to be used to estimate the total phosphorus recovered during street sweeping as data on wet and dry mass was not available. This option is designed to return the most conservative estimates from the model since it cannot account for season, frequency of sweeping, weather, canopy cover, or any other factors that impact sweepings' amount or composition.

***Figure 14**. Snapshot of MPCA Street Sweeping Tool (Agency, 2021)*



Street Sweeping Credit Calculator

MINNESOTA POLLUTION CONTROL AGENCY

Enter your data in YELLOW spaces based on the type of data you have available. Output units match input units (e.g. per year or per event). Track individual Calculator runs on the "Tracking" tab. If any required data inputs are missing, an error message will occur or output cells will appear blank.

Project or Watershed Area:

Input Data

Option 1: Dry Mass Data		Option 2: Wet Mass Data		Option 3: Curb Miles Swept Data	
Required Inputs:		*Required Inputs:*		*Required Inputs:*	
Street Sweeping Load Dry Mass (lbs)		Street Sweeping Load Wet Mass (lbs)		Curb Miles Swept (miles)	
Season of Data Collection	Not Applicable	Season of Data Collection	Not Applicable	*Note: if 1 mile of roadway is swept on both curb lines, input 2 curb miles*	
Optional Input from Laboratory Analyses:		*Optional Inputs from Laboratory Analyses:*			
Organic Matter Content (%)		Dry Basis Moisture Content (%)			
Note: if you have organic matter data, season does not matter.		Organic Matter Content (%)			
		Note: if user has organic matter data, season does not matter.			

Phosphorus Concentration or Removal Rate

		Street Sweeping Load Dry Mass (lbs)		Area of Road Swept (acres)	
P Concentration (mg P/ kg dry mass)	Missing input data	P Concentration (mg P/ kg dry mass)	Missing input data	P Removal Rate (lbs / ac / pass)	0.00017

Phosphorus Load Reduction

Total Phosphorus Removed (lbs)	Missing input data	Total Phosphorus Removed (lbs)	Missing input data	Total Phosphorus Removed (lbs)	

The MPCA tool third option calculates TP removed (in pounds) using an average TP removal rate multiplied by curb miles. Using the questionnaire, communities, townships, and agencies provided the number of centerline miles included in their street sweeping program. It was assumed that this whole area was swept in one sweeping "session" before areas were re-swept in an agency's sweeping schedule. Centerline miles were multiplied by two to return curb miles and entered into the MPCA tool to return estimated TP removed per "session." Communities, townships, and agencies also reported the frequency that they swept per month in different land use zones. It was assumed that the total swept area was representative of all zones in the agency's purview; using the geospatial dataset, the percentage of right-of-way was classified by zone and then multiplied the TP removed per session. To return, the TP removed per year was multiplied by the number of

sessions per zone per year. Finally, all of the TP removed per zone per year were added back together to estimate the TP removed per year for the whole agency.

Equation 1. *Removal of TP using Centerline Miles.*

$$(centerline\ mile * 2) * MPCA\ TP\ removal\ rate = TP\ removed\ per\ session$$

Equation 2*. TP Removed per Year by Land Use.*

$$\begin{gathered}\left((TP\ per\ session * \%\ of\ ROW\ in\ zone_{residential}) * \#\ of\ sweeps\ per\ year\ in\ zone_{residential}\right) \\ +\left((TP\ per\ session * \%\ of\ ROW\ in\ zone_{industrial}) *\ \#\ of\ sweeps\ per\ year\ in\ zone_{industrial}\right) \\ +\left((TP\ per\ session * \%\ of\ ROW\ in\ zone_{arterial}) *\ \#\ of\ sweeps\ per\ year\ in\ zone_{arterial}\right) \\ = TP\ removed\ per\ year\end{gathered}$$

Initial results from the tool showed extremely low TP removal rates that were a fraction of the rates reported in the street sweeping literature. After conferring with Tetra Tech, who helped build the MPCA Tool, the low rates were identified as being a factor of the Tool's curb miles option. The Tool was purposely designed to dramatically undercount TP removal rates for agencies using curb miles in order to compel them to collect mass data. This caution is a feature of the Tools use to generate credits inside a regulatory framework. To resolve this Tetra Tech supplied the authors of this report with the original data from the Minnesota P8 that was used to create the MPCA tool. This data was then used to create a more accurate removal rate. The P8 data includes canopy cover data, allowing the removal rates of Minnesota input agencies with similar effective canopy cover to the study area to be identified to calculate a new rate. The average effective canopy cover in the study area was calculated to be 24%. Minnesota P8 input agencies with of greater than or equal to 17% effective canopy cover were selected to be used for the calculation of the new removal rate. Both a 25th and a 50th percentile rate was calculated. The 25th percentile represents the bottom 25% of calculated removal rates and the 50th percentile represents the bottom half of the calculated removal rates. The rates for the original MPCA tool and the new calculated rates are shown in Table 7. The new rate was then replaced in the formula from the MPCA tool. The data and new rate calculation can be found in Appendix F. Any variation in the amount of phosphorus from different tree species was not considered in the analysis.

Table 7. *Rate Comparison (lbs/acre/event).*

Percentile	25%	50%
MPCA Tool Rate	0.00017	0.00020
New Rate	0.072681	0.127197

Based on the 48 communities, 6 Townships, and 1 agency that responded representing approximately 77% of the watershed area, the approximated TP removed from DRSCW and LDRWC watersheds is 6,870 pounds per year (Table 8). The 25th percentile rate was used for this study as a conservative estimation; the 50th percentile rate pounds of TP per year is almost twice as much as the 25th percentile.

Table 8. *Estimated Total Phosphorus Collected by Responding Communities and Townships across DRSCW and LDRWC Watersheds (lbs TP/year).*

	25th Percentile Rate	50th Percentile Rate
All Roads	**6,870**	12,021
Curb/Gutter Roads	6,218	10,882

The following figures show the distribution of the TP data for the 25th and 50th percentile rates of the communities and townships that responded. Figure 15 displays the data in a box and whisker plot and includes the means, medians, and outliers of the TP data. Most of the communities and townships fit within the distribution with the exception of a few outliers. Figures 16, 17, 18, 19, and 20 are histograms of the data with the number of communities/townships that removed a certain poundage of TP per year. Figure 10 shows the TP removed from both the 25th and 50th percentile rates and both road types. The distribution for the 50th percentile TP removal is larger than the 25th percentile TP removed. The average TP removed was 127-140 pounds per year and 222-245 pounds per year for the 25th and 50th percentiles, respectively. Communities on the lower end of the distribution are either smaller communities with fewer curb miles than larger communities, or are communities with less frequent street sweeping.

Appendix G contains the 25th and 50th total phosphorus (lbs TP/year) collected rates for all communities, townships, and agencies with a street sweeping program. Rates for both curb and gutter only and all roads are included.

Figure 15. *Distribution of Removed Phosphorus per Year.*

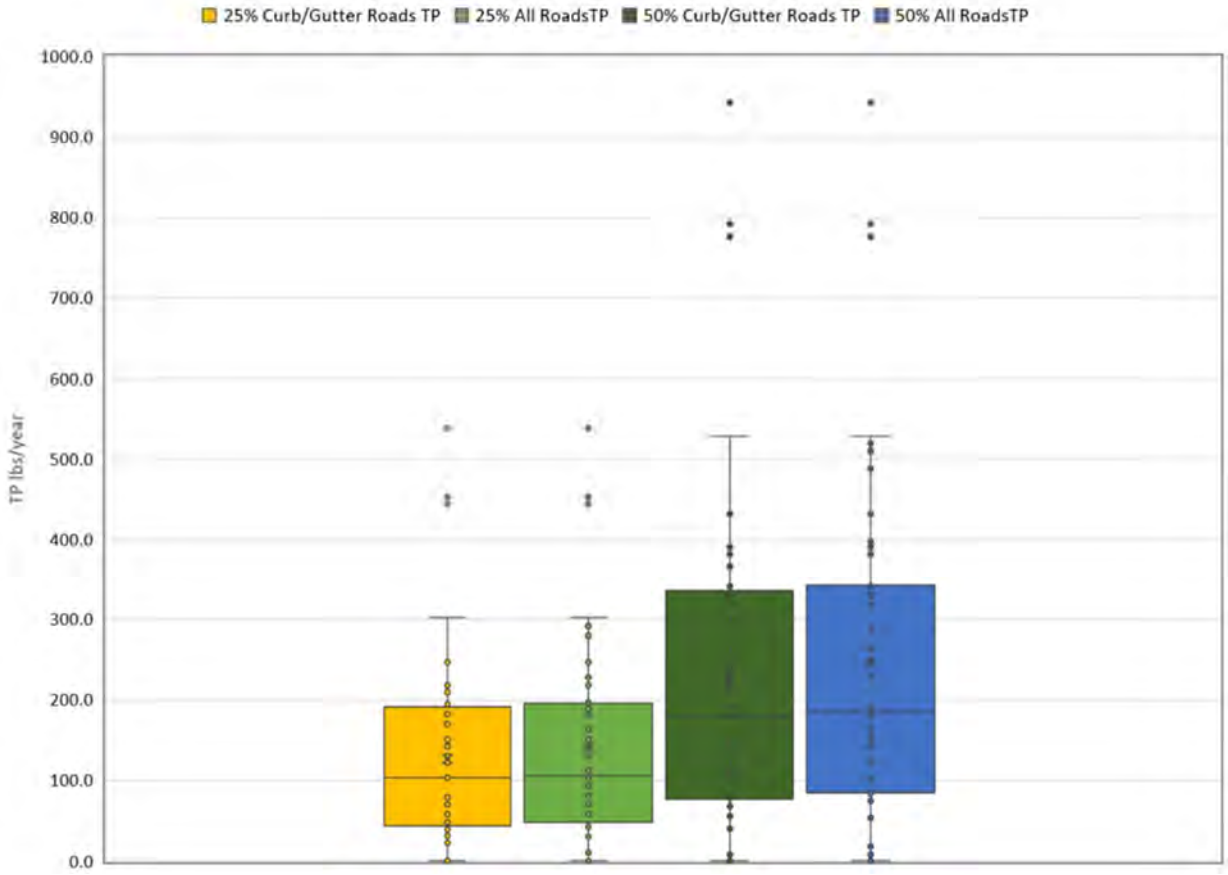


Figure 16. *Distribution of TP Removed: 25th and 50th Percentile Rates, All Roads and Curb/Gutter Roads.*

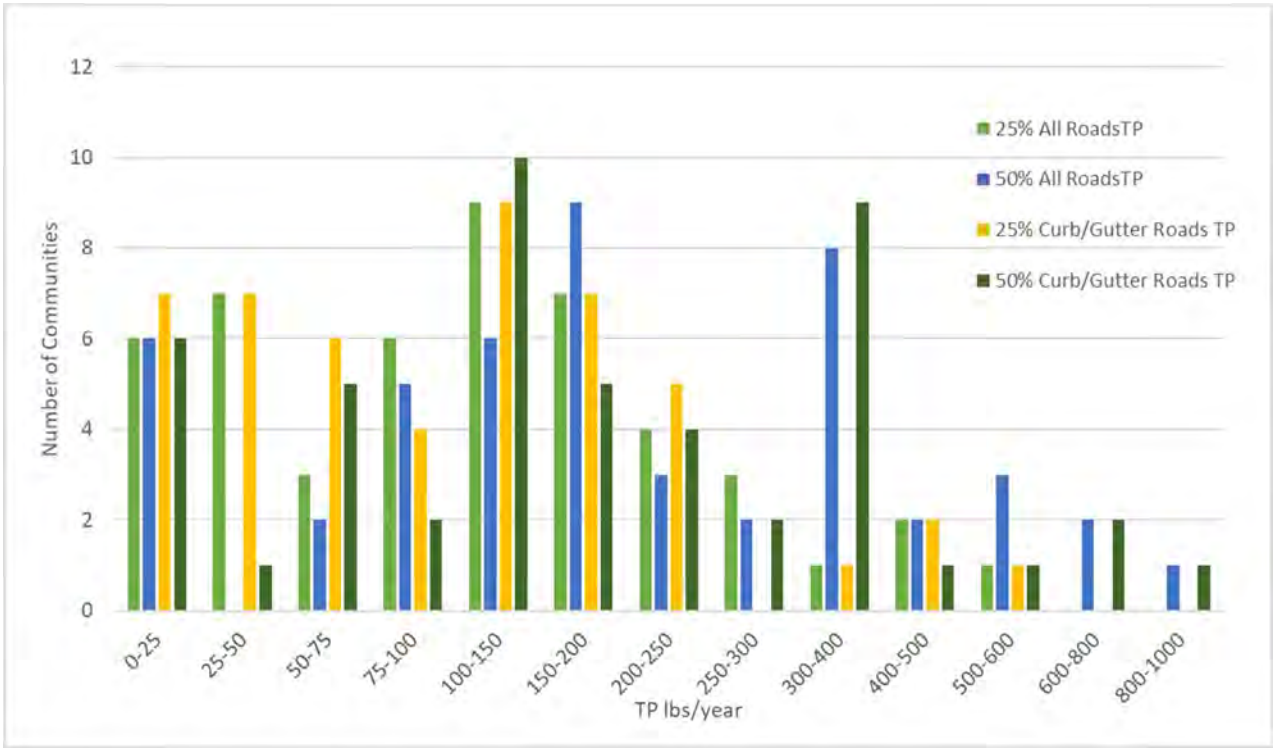


Figure 17. *Distribution of TP removed: 25th Percentile Rate, All Roads and Curb/Gutter Roads.*

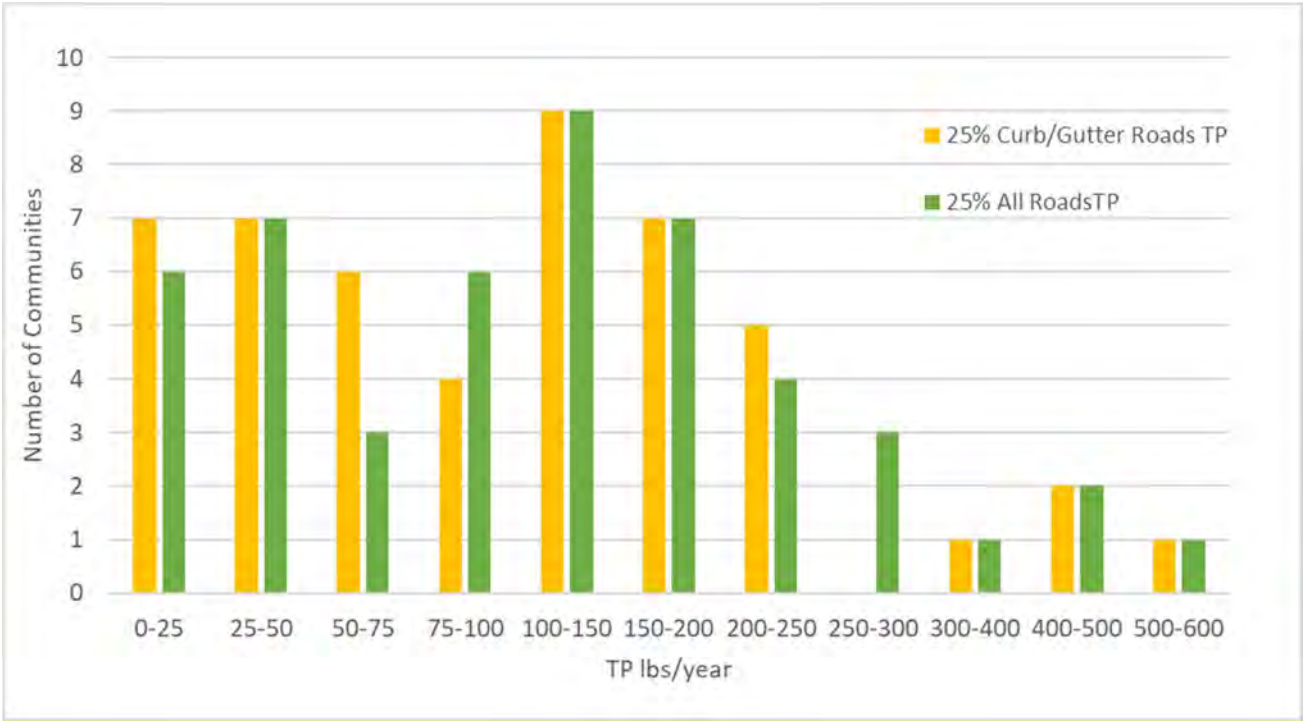


Figure 18. *Distribution of TP Removed: 50th Percentile Rate, All Roads and Curb/Gutter Roads.*

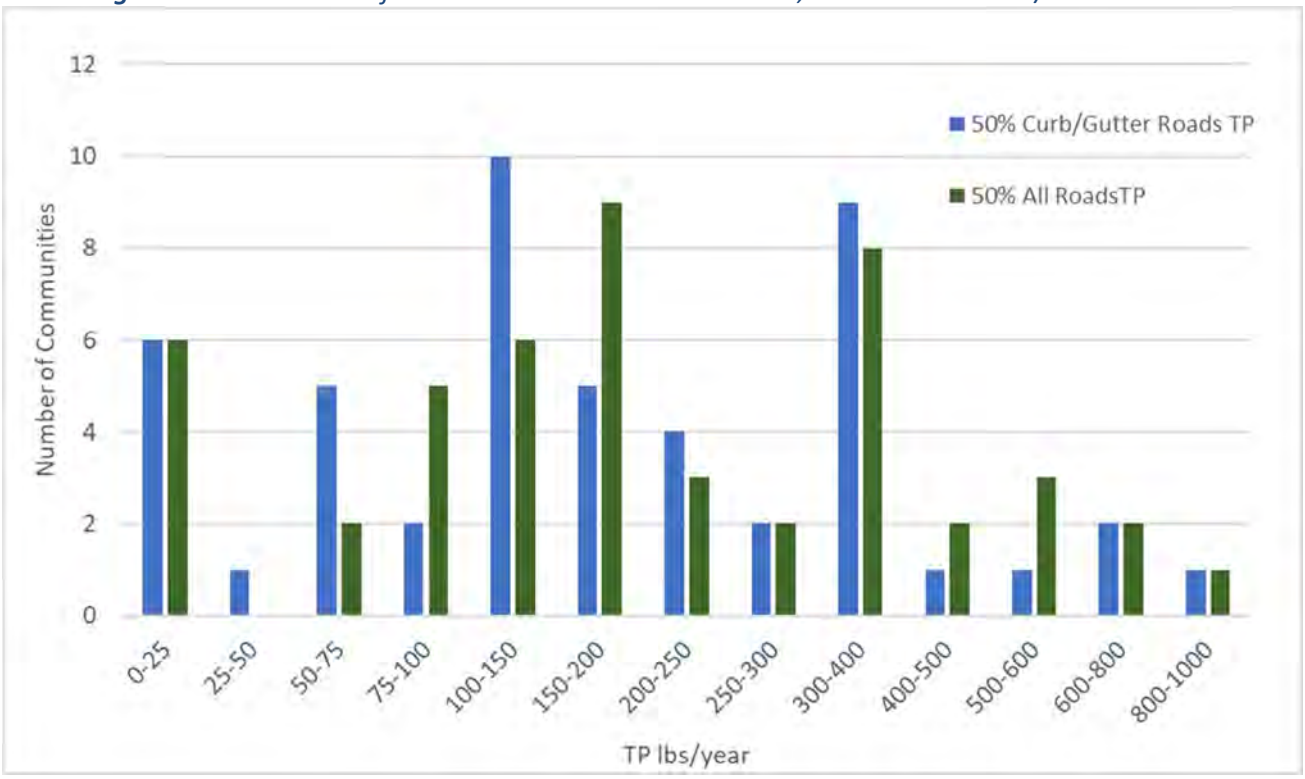


Figure 19. *Distribution of TP Removed: 25th and 50th Percentile Rates, All Roads.*

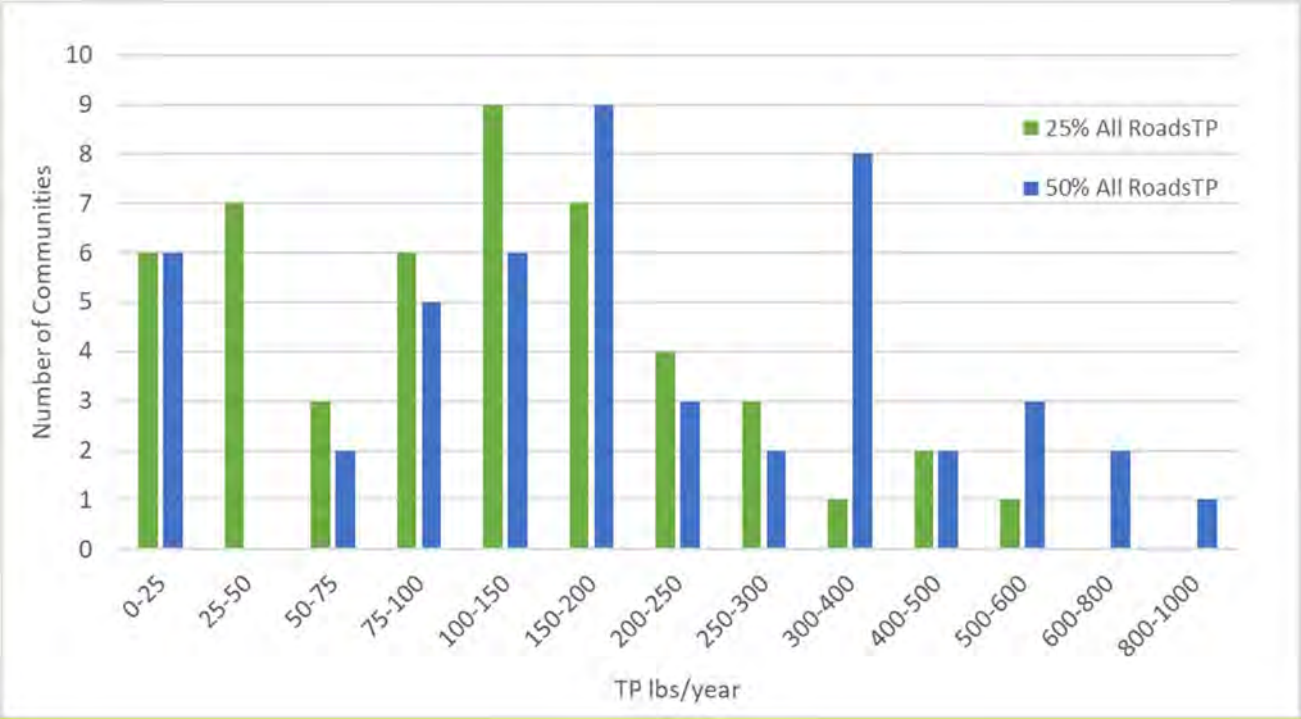
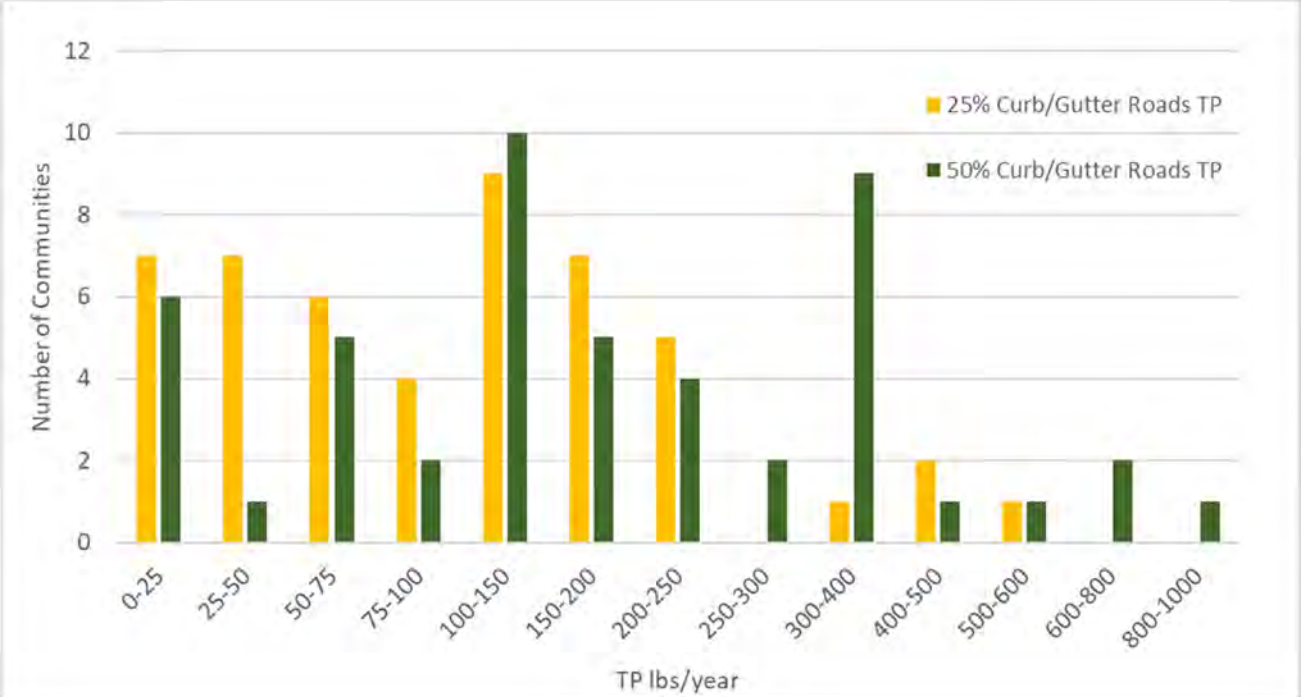


Figure 20. *Distribution of TP Removed: 25th and 50th Percentile Rates, Curb/Gutter Roads.*



6. Opportunities for Reducing Total Phosphorus

The analysis and results provide an adequate quantification of the total phosphorus (TP) captured by current leaf litter and street sweeping practices. Based on published analyses and a review of the data gathered via the questionnaire, several opportunities exist to further reduce TP in stormwater runoff by modifying street sweeping and leaf litter management practices.

The opportunities and recommendations for possible practice enhancements are listed below in order of their suspected effectiveness in enhancing TP capture. No attempt has been made at this time to attach reduction totals to these recommendations or evaluate the feasibility or significance of each recommendation. The recommendations were aimed at optimizing TP abatement in the sense that they seek to maximize capture of TP without increasing the resources allocated to leaf litter pickup and street sweeping.

The recommendations need to be interpreted in relation to the agency's priorities and in relation to the enhancement or reduction of the capture of other road pollutants (PAHs, metals, and chlorides). It should be also noted that the efficiency of further enhancements to NPS TP capture needs to be compared to the scale and marginal cost of capture of TP at Publicly Owned Treatment Works (POTWs). This latter evaluation will be included in the Nutrient Implementation Plan (NIP) due in December 2023.

- Street Sweeping after Leaf Collection

Several communities in the study area are not sweeping streets in coordination with leaf collection programs. Following leaf collection, street sweeping may remove residual leaf litter remaining in the street, thus reducing the amount of associated TP entering the storm drain system. Changing the street sweeping schedule to align with leaf collection could have no cost impact on the program to the extent it can be performed by existing personnel.

- Increasing Street Sweeping Frequency in Leaf Collection Months (Fall)

Community street sweeping schedules are generally set on a regular basis (events / month). Increasing the frequency of street sweeping in the leaf collection months would better capture leaf litter deposited between storm events, better preventing leaves and associated TP from entering the storm drain system. Increases in fall sweeping frequency could be offset with decreases in non-leaf litter periods to reduce or eliminate any cost impacts associated with timing or frequency changes. Communities, townships, and agencies can further optimize the impact of their sweeping efforts on TP reduction by increasing sweeping in the Fall in areas with high percentage canopy cover. Percentage canopy cover by land use type by municipality is included in Appendix E.

- Increasing Sweet Sweeping Frequency in Spring.

While the greatest annual contribution to TP in stormwater comes from fall leaf litter, there is a second smaller increase relative the observed monthly loadings in the spring (Kalinosky, 2015; Selbig W. , 2016). While increased spring sweeping would not offer as large a TP reduction as increased Fall sweeping, it is plausible that early spring TP releases into a river system are more impactful per unit of mass than those in Fall (Bothwell, 1988; Biggs, 1995; Rosemond, 1993; Hill & Dimick, 2002; Bushong & Bachmann, 1989; Van Nieuwenhuyse & Jones, 1996). Cost increases from increased sweeping in spring could be offset by reducing sweeping during summer months.

- Expansion of Leaf Litter Collection Programs

While street sweeping is performed at some level in each study area community, some communities in the study area do not have a leaf collection program. Implementation of a leaf litter collection program in conjunction with the street sweeping program would further reduce the amount of leaf litter entering the storm drain system or leaching TP into stormwater runoff.

- Prioritizing Street Sweeping by Canopy Cover

A geospatial inventory of tree canopy cover in ROW areas was developed for the DRSCW and LDRWC watersheds and for each community and township (Appendix E). Prioritizing street sweeping efforts in areas with relatively high canopy cover would increase the efficiency of removing TP in stormwater runoff. This would involve increasing the frequency of sweeping in high canopy cover most importantly in the spring and Fall. Cost increases from increased sweeping in high canopy areas could be offset by reducing sweeping in low canopy areas. The prioritization of increasing sweeping in high canopy areas over low canopy areas will also need to be balanced with the other objectives of street sweeping such as trash collection and the reduction of other pollutants.

- Use of Weather Forecasting

Weather forecasting can be used to manage the timing of leaf collection events. Collecting leaves before storm events will prevent the washing of leaves into the storm drain system, and reduce the amount of leached TP in stormwater runoff. Utilizing weather forecasting also has the added benefit of ensuring storm drains are clear and do not become blocked which can cause localized flooding. While it may be infeasible to sweep an entire large community based on weather forecast, higher tree canopy areas could be prioritized and maintained based on forecast, at low cost to the program. The questionnaire did not ask respondents about their use of weather forecasting but in a DRSCW survey of agencies' snow fighting operations, 30 agencies out of 41 respondents reported using a weather forecasting service (73%).

- Public Education Outreach

Project area stormwater authorities, DRSCW, LDRWC, or other public partners could create public outreach materials for communities and their residents to educate on the impact of leaves and phosphorus on surface water quality and what types of leaves leach the most phosphorus. The outreach materials should include information about not mowing or grinding up leaves before placing them at the curb for collection because this increases the leachability of the leaves. Residents should be informed that leaving a space between the curb and the leaf pile can also reduce phosphorus runoff. Outreach materials should also provide information tailored to landscaping maintenance companies regarding proper landscape waste handling practices such as not blowing leaves that have fallen on grassed areas into the street.

- Local Ordinances to Prohibit Blowing of Landscape Waste into Roadways

Project communities without leaf collection programs that require residents to place leaf litter debris in the roadway could enact local ordinances that prohibit the blowing of landscape waste into the roadways. Preventing the disposal of leaf litter and grass clippings in roadways would reduce the potential for TP to be leached from the landscape waste and be transported to the storm sewer system during storm events that happen in between street sweeping operations. Additionally, limiting the amount of landscaped debris in the streets will assist with keeping storm drains clear and reduce the risk of localized flooding.

7. Opportunities for Further Analysis

Several items were identified as activities that could be considered should the DRSCW and LDRWC decide that the resolution of the study needed to be increased. These additional items should be screened based on their cost, impacts on improving the accuracy of the study and how they may influence the conclusions of the Nutrient Implementation Plan (NIP).

- Increase Response Rate to Questionnaire

Out of 95 communities, townships, and agencies who received questionnaires, 55 (58%) responded. A priority would be to obtain answers from those that did not respond. Questionnaires should also be submitted to the 9 communities, townships, and agencies in the DRSCW and LDRWC who were not sent questionnaire during the original data solicitation.

- Collection of Timeline Data of Leaf Litter Collection and Street Sweeping Efforts

While the questionnaire obtained information on the frequency of leaf litter collection and street sweeping by month and land type (i.e., residential, arterial, and commercial), details on the duration of a call out was not collected. Smaller units of government may have limited personnel with the same staff members being responsible for both leaf litter collection and street sweeping. This would create a practical limit on the capability of intensifying efforts at TP critical times of year.

Data on leaf collection and street sweeping call out duration may help calibrate the actual ability of the communities, townships, and agencies to implement such optimization efforts.

- Collect Dry and Wet Mass Data on Street Sweepings

Given the type of data available at the time of this analysis, DRSCW and LDRWC can improve the application of the MPCA Street Sweeping Tool by collecting additional data. Dry and/or wet mass data could be collected from communities to use the better calibrated options of the tool. The dry mass and wet mass options of the MPCA Tool also account for seasonal effects. This would improve the analysis by determining how much extra phosphorus could be collected before fall and/or after leaf collection sweeping. This would allow a comparison of the approximated TP data to future collected data. Verifying that concentrations vary with canopy cover could be built into the study by using the canopy map to ensure that data was collected in both high and low canopy coverage areas.

- Conduct Tree Species Indices

Based on literature review, different tree speciation can leach significantly different amounts of total phosphorus (TP). A study performed in the Twin Cities, MN concluded that the amount of TP varies across tree species. The study determined the TP content of 27 different tree species (Charry, 2016). A survey of tree species could be performed to catalog species planted in the ROW, with the metadata added to the source map. This would help to determine a more precise TP recovery for each community. A tree species index could also provide information to improve or prioritize leaf collection and street sweeping practices.

- Increase Data on Phosphorus Speciation

Phosphorus speciation is also a factor in nutrient removal from stormwater and surface water systems. Specifically, dissolved phosphorus (DP) affects dissolved oxygen levels in surface water. Future studies should include information on DP as a fraction of TP and DP amounts removed during leaf collection and street sweeping.

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Leaf Litter Collection Survey

General Information

Name of individual filling out survey *

First Name

Last Name

Agency Name *

Email *

example@example.com

Phone Number *

Area Code

Phone Number

1. How many centerline miles are managed under your jurisdiction? *

2. Estimate the percentage of total centerline miles that are curb/gutter? *

- 0%
- 25% (Quarter)
- 33% (Third)
- 50% (Half)
- 66% (Two Thirds)
- 75% (Three Quarters)
- 100%

3. Estimate the percentage of total centerline miles that are CSO (combined sewer overflow)? *

- 0%
- 25% (Quarter)
- 33% (Third)
- 50% (Half)
- 66% (Two Thirds)
- 75% (Three Quarters)
- 100%
- Not sure

Street Sweeping

4. Do you have a street sweeping program? *

- ( ) Yes
- ( ) No (if no, proceed to Leaf Collection page)

5. Who conducts the street sweeping operations on roads under your jurisdiction? (check all that apply)

- [ ] In house
- [ ] Contractor(s)
- [ ] Other public agency(s) or unit of government
- [ ] Other

6. How many centerline miles are included in street sweeping operations?

7. Estimate the percentage of total centerline miles that are swept that are curb/gutter?

- ( ) 0%
- ( ) 25% (Quarter)
- ( ) 33% (Third)
- ( ) 50% (Half)
- ( ) 66% (Two Thirds)
- ( ) 75% (Three Quarters)
- ( ) 100%

8. How many lane miles does each type of equipment sweep in 1 cycle?

	Lane Miles
Regenerative air with mechanical brush sweeper	
Mechanical brush sweeper	
Mechanical brush with vacuum assist	
Other equipment (please describe below)	

8. Other equipment description

9. Do your street sweeping operations change due to the increase of leaf litter in the fall? (If "Yes", please describe below)

- Yes
- No

9. Yes-Description of alterations to operations

10. How does your agency dispose of spoils from street sweeping? (Check all that apply)

- Vactor Station
- Outside Contractor
- Landfill
- Other

11. How many times per month do you sweep streets?
(Fill in table as best describes your schedule)

	January	February	March	April	May	June	July	August	September	October	November	December
Residential Areas												
Arterial Streets												
Commercial/Industrial Areas												
Central Business District												

Leaf Collection

12. Do you have a leaf collection program for residents? *

- Yes
- No (if no, proceed to Catch Basin page)

13. Who conducts the leaf collection operations on roads under your jurisdiction? (check all that apply)

- In house
- Contractor(s)
- Other public agency(s) or unit of government
- Other

14. How many centerline miles are included in leaf collection operations?

15. What percentage of centerline miles where leaves are collected are curb/gutter?

- 0%
- 25% (Quarter)
- 33% (Third)
- 50% (Half)
- 66% (Two Thirds)
- 75% (Three Quarters)
- 100%

16. Where do you have residents place leaves for pickup?

- Parkway
- Street/Curb

17. How do you have residents place leaves for pickup?

- Directly on ground/street
- In bags/bins

18. How do you alter your leaf collection schedule due to rainfall? (Check all that apply)

- [ ] Schedule proceeds as usual
- [ ] Leaf collection is moved up to before predicted rainfall
- [ ] Leaf collection is delayed to after predicted rainfall

19. Do you usually follow up leaf collection with street sweeping?

- Yes
- No

20. How many times per month do you collect leaves? (Fill in table as best describes your schedule)

	September	October	November	December
Residential Areas				
Arterial Streets				
Commercial/Industrial Areas				
Central Business District				

21. What system do you use to notify people of leaf collection schedules? (Check all that apply)

- [ ] Printed material (newsletter, utility bill, mail)
- [ ] Official website or social media
- [ ] Text messege or phone call
- [ ] We do not notify residents
- [ ] Other

22. Are parked cars notified to move for leaf collection?

- ( ) Yes
- ( ) No

23. Are obstructed areas revisited for leaf collection?

- ( ) Yes
- ( ) No

24. Where do you dispose of collected leaves? (Check all that apply)

- [ ] Compost
- [ ] Landfill
- [ ] Other

25. Are residents encouraged/educated on the benefits of mulching/composting their own leaves?

- ( ) Yes
- ( ) No

Catch Basin Cleanout

26. Estimate how many catch basins you maintain? *

27. Who conducts the catch basin cleanout operations on roads under your jurisdiction? (check all that apply)

- [ ] In house
- [ ] Contractor(s)
- [ ] Other public agency(s) or unit of government
- [ ] Other

28. On average how many catch basins are cleaned per year?

29. How does your agency dispose of spoils from vactoring? (Check all that apply)

- [ ] Vactor Station
- [ ] Outside Contractor
- [ ] Landfill
- [ ] Other

Thank you for taking the time to complete this leaf litter collection survey. Your answers will help us reduce nutrient pollution in our waterways.

If you would like to review your answers, please go back and do so now. After submittal there is no way to alter responses.

If you have any further comments please provide them below.

If you have any further questions, please reach out to Alex Handel via the email below.

(email: ahandel@theconservationfoundation.org)

Final comments:

Type here...

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Agency Name	Simplified Agency Name	1. How many centerline miles are managed under your purview?	2. Estimate the percentage of total centerline miles that are curb/gutter?	3. Estimate the percentage of total centerline miles that drain into combined sewers.	4. Do you have a street sweeping program?	5. Who conducts the street sweeping operations on roads under your purview?	6. How many centerline miles are included in street sweeping operations?	7. Estimate the percentage of total centerline miles that are swept that are curb/gutter?	Regenerative air with mechanical brush sweeper >> Lane Miles	Mechanical brush sweeper >> Lane Miles	Mechanical brush with vacuum assist >> Lane Miles	Other equipment (please describe below) >> Lane Miles
Village of Addison	Addison	96	75% (Three Quarters)	25% (Quarter)	Yes	In house	96	75% (Three Quarters)			96	
Village of Barrington	Barrington	50	66% (Two Thirds)	0%	Yes	In house	50	66% (Two Thirds)			50	
Village of Bartlett	Bartlett	140	100%	0%	Yes	In house	140	100%	70	70		
Village of Bensenville	Bensenville	59	100%	0%	Yes	In house	59	100%		29.5	29.5	
Village of Berkeley	Berkeley	22	100%	0%	Yes	In house	22	100%	22	0	0	0
Village of Bloomingdale	Bloomingdale	172	75% (Three Quarters)	Not sure	Yes	Contractor(s)	125	75% (Three Quarters)			125	
Village of Bolingbrook	Bolingbrook	305	75% (Three Quarters)	0%	Yes	In house	305	100%		305		
Village of Brookfield	Brookfield	57	50% (Half)	66% (Two Thirds)	Yes	In house	57	100%			57	
Village of Carol Stream	Carol Stream	112	100%	0%	Yes	In house Contractor(s)	112	100%	112			
Village of Channahon	Channahon	83	66% (Two Thirds)	0%	Yes	Contractor(s)	83	66% (Two Thirds)		83		
City of Crest Hill	Crest Hill	51	75% (Three Quarters)	0%	Yes	In house	39	100%		39		
Village of Downers Grove	Downers Grove	167	66% (Two Thirds)	0%	Yes	Contractor(s)	120	66% (Two Thirds)	120			
Downers Grove Township Highway Dept	Downers Grove Township	70	50% (Half)	50% (Half)	Yes	In house	35	50% (Half)		35		
Elk Grove Village	Elk Grove Village	128	100%	0%	Yes	In house	128	100%		128		
City of Elmhurst	Elmhurst	150	75% (Three Quarters)	Not sure	Yes	Contractor(s)	115	100%			115	
Village of Elwood	Elwood	38	75% (Three Quarters)	75% (Three Quarters)	Yes	In house	30	75% (Three Quarters)			30	
Village of Frankfort	Frankfort	125	66% (Two Thirds)	0%	Yes	Contractor(s)	100	100%	100			
Village of Glen Ellyn	Glen Ellyn	89	100%	0%	Yes	In house	83	100%		166		
Village of Glendale Heights	Glendale Heights	76	100%	0%	Yes	In house Contractor(s)	72	100%	152			
Village of Hanover Park	Hanover Park	100	75% (Three Quarters)	0%	Yes	In house	100	100%		100		
Village of Hoffman Estates	Hoffman Estates	157	75% (Three Quarters)	0%	Yes	Contractor(s)	160	75% (Three Quarters)	161			
Illinois DOT	Illinois DOT	2700	33% (Third)	0%	Yes	Contractor(s)	2700	33% (Third)		2700		
Village of Itasca	Itasca	43	75% (Three Quarters)	0%	Yes	Contractor(s)	43	75% (Three Quarters)		43		
City of Joliet	Joliet	584	100%	0%	Yes	In house	584	100%		584		
Village of Lisle	Lisle	70	66% (Two Thirds)	0%	Yes	Contractor(s)	45	66% (Two Thirds)			45	
City of Lockport	Lockport	103	75% (Three Quarters)	Not sure	Yes	In house Contractor(s)	103	100%	0	103	0	0
Village of Lombard	Lombard	145	100%	25% (Quarter)	Yes	In house	145	100%		145		
Village of Manhattan	Manhattan	100	75% (Three Quarters)	100%	Yes	Contractor(s)	75	75% (Three Quarters)				
Milton Township Highway Dept.	Milton Township	80	33% (Third)	25% (Quarter)	Yes	In house	25	100%		25		

Simplified Agency Name	9. Other	9. Do your street sweeping operations change due to the increase of leaf litter in the fall?	9. Yes-Description of alterations to operations	10. How does your agency dispose of spoils from street sweeping?	Residential Areas >> January	Residential Areas >> February	Residential Areas >> March	Residential Areas >> April	Residential Areas >> May	Residential Areas >> June	Residential Areas >> July	Residential Areas >> August
Addison	N/A	Yes	Frequency is doubled in the fall. Often we run 1 1/2 or 2 shifts.	Landfill	0	0	2	2	2	2	2	2
Barrington		Yes	We have to sweep 5 days a week to keep the drains functioning.	Outside Contractor Landfill	0	0	0	1	1	1	1	1
Bartlett	Pelican and Crosswind used	Yes	Increase sweeping	Landfill	0	0	0	1	0	1	0	1
Bensenville		Yes	During spring and fall we double up with mechanical brush with vacuum assist machine. Normal cycle is just mechanical brush sweeper	Landfill	0	0	2	1	1	1	1	1
Berkeley	N/A	Yes	We sweep more often	Landfill Hauled by Rainbow Farms for recycling/mulching	0	0	1	1	1	1	1	1
Bloomingdale		Yes	extra sweeps 2 per month	Outside Contractor Landfill	0	0	1	0	1	0	1	1
Bolingbrook		Yes	Heavier loads, dump trucks follow to unload to save time	Landfill	2	0	16	16	16	16	16	16
Brookfield		No		Landfill				4	4	4	4	4
Carol Stream	none	Yes	Two sweeps scheduled to address leaves. May also do in-house if necessarys.	Outside Contractor			1		1	1	1	1
Channahon		No		stockpiled at public works facility			1			1		
Crest Hill		No		Landfill	0	0	0	15	15	10	5	5
Downers Grove		Yes	3 sweeping cycles Oct-Nov	Outside Contractor	0	0	1	2	2	2	2	2
Downers Grove Township		No		Landfill					1			
Elk Grove Village		Yes	Village has an on street leaf collection program and all streets are swept following each leaf collection day	Landfill	0			2	1	1	1	1
Elmhurst		Yes	2 leaf sweep cycles are completed specifically during the fall months	Outside Contractor	0	0	1	1	1	1	1	1
Elwood		No		Landfill					1	1	1	1
Frankfort		No		Outside Contractor					1		1	
Glen Ellyn		Yes	Increased sweeping cycle from 2x per month until leaves are picked up	Landfill	0	0	0	2	2	2	2	2
Glendale Heights		Yes	Increase of Contractual Sweepers	Outside Contractor Landfill				4	4	1		
Hanover Park		Yes	daily to keep up	Outside Contractor			1	1	1	1	1	1
Hoffman Estates		No		Outside Contractor	0	0	0	0	1	0	1	0
Illinois DOT	None	No		Landfill								
Itasca		Yes	Sweep every other week rather than every 3 weeks	Landfill	0	0	1	1	2	1	1	2
Joliet		Yes	Increased frequency of sweeping	Landfill	0	0	.5	.5	.5	.5	.5	.5
Lisle		No		Outside Contractor			1	1	1	1	1	1
Lockport		Yes	Sweep more often	Landfill			1	2	2	1	1	1
Lombard		Yes	Increase frequency	Vactor Station Outside Contractor Landfill			1		1		1	
Manhattan		No		Outside Contractor								
Milton Township		Yes	Only sweep in Fall	Outside Contractor								

Simplified Agency Name	Residential Areas >> September	Residential Areas >> October	Residential Areas >> November	Residential Areas >> December	Arterial Streets >> January	Arterial Streets >> February	Arterial Streets >> March	Arterial Streets >> April	Arterial Streets >> May	Arterial Streets >> June	Arterial Streets >> July	Arterial Streets >> August	Arterial Streets >> September	Arterial Streets >> October	Arterial Streets >> November	Arterial Streets >> December
Addison	2	4	2	0	0	0	2	2	2	2	2	2	2	4	2	0
Barrington	1	3	3	0	0	0	0	1	1	1	1	1	1	3	3	0
Bartlett	0	1	0	0	0	0	0	1	0	1	0	1	0	1	0	0
Bensenville	1	2	2	0	0	0	2	1	1	1	1	1	1	2	2	0
Berkeley	2	3	3	1	0	0	1	1	1	1	1	1	2	3	3	1
Bloomingdale	1	2	2	0	0	0	1	0	1	0	1	1	1	2	2	0
Bolingbrook	16	16	4	4	2	0	16	16	16	16	16	16	16	16	4	4
Brookfield	4	4	4					4	4	4	4	4	4	4	4	
Carol Stream	1	1	1				1		1	1	1	1	1	1	1	
Channahon	1		1				1			1			1		1	
Crest Hill	5	20	20	0	0	0	0	15	15	10	5	5	5	20	20	0
Downers Grove	2	2	2	0	0	0	1	2	2	2	2	2	2	2	2	0
Downers Grove Township			1						1						1	
Elk Grove Village	1	2	2	1	0			1		1		1		1		
Elmhurst	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0
Elwood	1	1	1						1	1	1	1	1	1	1	
Frankfort	1		1						1		1		1		1	
Glen Ellyn	3	4	3	0	0	0	0	2	2	2	2	2	3	4	3	0
Glendale Heights	1	4	4					4	4	1			1	4	4	
Hanover Park	1	4	4				1	1	1	1	1	1	1	4	4	
Hoffman Estates	1	0	1	0	0	0	0	0	1	0	1	0	1	0	1	0
Illinois DOT									1				1			
Itasca	1	2	3	1	0	0	1	1	2	1	1	2	1	2	3	1
Joliet	.5	.5	.5	0	0	0	1	1	1	1	1	1	1	1	1	0
Lisle	1	1	1				1	1	1	1	1	1	1	1	1	
Lockport	1	2	2				1	2	2	1	1	1	1	2	2	
Lombard			1	1			1		1		1				1	1
Manhattan																
Milton Township		2														

Simplified Agency Name	Commercial/Industrial Areas >> January	Commercial/Industrial Areas >> February	Commercial/Industrial Areas >> March	Commercial/Industrial Areas >> April	Commercial/Industrial Areas >> May	Commercial/Industrial Areas >> June	Commercial/Industrial Areas >> July	Commercial/Industrial Areas >> August	Commercial/Industrial Areas >> September	Commercial/Industrial Areas >> October	Commercial/Industrial Areas >> November	Commercial/Industrial Areas >> December	Central Business District >> January
Addison	0	0	2	2	2	2	2	2	2	4	2	0	0
Barrington	0	0	0	1	1	1	1	1	1	3	3	0	0
Bartlett	0	0	0	1	0	1	0	1	0	1	0	0	0
Bensenville	0	0	2	1	1	1	1	1	1	2	2	0	0
Berkeley	0	0	1	1	1	1	1	1	2	3	3	1	0
Bloomingdale	0	0	1	0	1	0	1	1	1	2	2	0	
Bolingbrook	2	0	16	16	16	16	16	16	16	16	4	4	0
Brookfield													
Carol Stream			1		1	1	1	1	1	1	1		
Channahon			1			1			1		1		
Crest Hill	0	0	0	15	15	10	5	5	5	20	20	0	0
Downers Grove	0	0	1	2	2	2	2	2	2	2	2	0	0
Downers Grove Township					1						1		
Elk Grove Village	2	2	2								2	2	
Elmhurst	0	0	1	1	1	1	1	1	1	1	1	0	0
Elwood					1	1	1	1	1	1	1		
Frankfort					1		1		1		1		
Glen Ellyn													0
Glendale Heights				4	4	1			1	4	4		
Hanover Park			1	1	1	1	1	1	1	4	4		
Hoffman Estates	0	0	0	0	1	0	1	0	1	0	1	0	0
Illinois DOT					1				1				
Itasca	0	0	1	1	2	1	1	2	1	2	3	1	0
Joliet	0	0	.5	.5	.5	.5	.5	.5	.5	.5	.5	0	0
Lisle			1	1	1	1	1	1	1	1	1		
Lockport			1	2	2	1	1	1	1	2	2		
Lombard			1		1		1				1	1	
Manhattan													
Milton Township													

Simplified Agency Name	Central Business District >> February	Central Business District >> March	Central Business District >> April	Central Business District >> May	Central Business District >> June	Central Business District >> July	Central Business District >> August	Central Business District >> September	Central Business District >> October	Central Business District >> November	Central Business District >> December	12. Do you have a leaf collection program?	13. Who conducts the leaf collection operations on roads under your jurisdiction?	14. How many centerline miles are included in leaf collection operations?
Addison	0	2	2	2	2	2	2	2	4	2	0	Yes	Contractor(s)	96
Barrington	0	0	4	4	4	4	4	4	4	4	0	Yes (updated)		
Bartlett	0	0	1	0	1	0	1	0	1	0	0	Yes (updated)		
Bensenville	0	2	1	1	1	1	1	1	2	2	0	Yes (updated)		
Berkeley	0	1	1	1	1	1	1	2	3	3	1	Yes	Part of the yard waste removal program with our garbage hauler	22
Bloomingdale												Yes (updated)		
Bolingbrook	0	0	0	0	0	0	0	0	0	0	0	Yes	By Contractor	305
Brookfield			4	4	4	4	4	4	4	4		Yes	In house	57
Carol Stream		1		1	1	1	1	1	1	1		Yes	Garbage hauler	112
Channahon		1			1			1		1		Yes	Contractor(s)	83
Crest Hill	0	0	15	15	10	5	5	5	20	20	0	Yes (updated)		
Downers Grove	0	2	4	4	4	1	2	2	2	2	0	Yes (updated)		
Downers Grove Township										1		No (if no, proceed to Catch Basin page)		
Elk Grove Village												Yes	In house	85
Elmhurst	0	3	5	4	4	5	4	4	4	4	0	Yes	Contractor(s)	100
Elwood				1	1	1	1	1	1	1		Yes (updated)		
Frankfort				2	2	2	2	2	2	2		Yes	In house	125
Glen Ellyn	0	0	8	8	8	8	8	8	8	8	0	Yes	Contractor(s)	89
Glendale Heights												Yes	In house Contractor(s)	76
Hanover Park		1	1	1	1	1	1	1	4	4		Yes (updated)		
Hoffman Estates	0	0	0	1	0	1	0	1	0	1	0	Yes (updated)		
Illinois DOT												No (if no, proceed to Catch Basin page)		
Itasca	0	1	1	2	1	1	2	1	2	3	1	Yes	Contractor(s)	28
Joliet	0	20	20	20	20	20	20	20	20	20	0	Yes (updated)		
Lisle		1	1	1	1	1	1	1	1	1		Yes	In house	70
Lockport		1	2	2	1	1	1	1	2	2		Yes	In house Contractor(s)	103
Lombard		1		1		1				1	1	Yes	Contractor(s)	145
Manhattan												Yes	Contractor(s)	100
Milton Township												No (if no, proceed to Catch Basin page)		

Simplified Agency Name	15. What percentage of centerline miles where leaves are collected are curb/gutter?	16. Where do you have residents place leaves for pickup?	17. How do you have residents place leaves for pickup?	18. How do you alter your leaf collection schedule due to rainfall?	19. Do you usually follow up leaf collection with street sweeping?	Residential Areas >> September	Residential Areas >> October	Residential Areas >> November	Residential Areas >> December	Arterial Streets >> September	Arterial Streets >> October	Arterial Streets >> November
Addison	75% (Three Quarters)	Parkway	In bags/bins	Leaf collection is moved up to before predicted rainfall	No	4	4	4	0	4	4	4
Barrington			In bags/bins									
Bartlett			In bags/bins									
Bensenville			In bags/bins									
Berkeley	100%	Parkway	In bags/bins	Schedule proceeds as usual	No	4	4	4	0	4	4	4
Bloomingdale			In bags/bins									
Bolingbrook	100%	Parkway	In bags/bins	Schedule proceeds as usual	No	every pickup day from a[ril-dec (once a week)						
Brookfield	100%	Parkway	Directly on ground/street	Schedule proceeds as usual	Yes			4				4
Carol Stream	100%	Parkway	In bags/bins	Schedule proceeds as usual	No			1	1			
Channahon	66% (Two Thirds)	Street/Curb	In bags/bins	Schedule proceeds as usual	No	4	4	4	4			
Crest Hill			In bags/bins									
Downers Grove			In bags/bins									
Downers Grove Township												
Elk Grove Village	100%	Street/Curb	Directly on ground/street	Schedule proceeds as usual	Yes		20	20	5		20	20
Elmhurst	75% (Three Quarters)	Parkway	In bags/bins	Schedule proceeds as usual	No			1	1			
Elwood			In bags/bins									
Frankfort	66% (Two Thirds)	Parkway	Directly on ground/street	Schedule proceeds as usual	Yes		3	4	1		3	4
Glen Ellyn	100%	Parkway	In bags/bins	Schedule proceeds as usual	Yes	4	4	4	0	4	4	4
Glendale Heights	100%	Parkway	In bags/bins	Schedule proceeds as usual	Yes	1	4	4		1	4	4
Hanover Park			In bags/bins									
Hoffman Estates			In bags/bins									
Illinois DOT												
Itasca	75% (Three Quarters)	Street/Curb	In bags/bins	Schedule proceeds as usual	Yes	4	4	5	0	4	4	5
Joliet			In bags/bins									
Lisle	66% (Two Thirds)	Parkway	Directly on ground/street	Schedule proceeds as usual	Yes		2	3				
Lockport	75% (Three Quarters)	Parkway	Directly on ground/street	Schedule proceeds as usual	Yes	0	4	4	2	0	4	4
Lombard	100%	Parkway	In bags/bins	Leaf collection is moved up to before predicted rainfall	Yes			4	2			
Manhattan	75% (Three Quarters)	Parkway	In bags/bins	Schedule proceeds as usual		4	4	2		4	4	2
Milton Township												

Simplified Agency Name	Arterial Streets >> December	Commercial/Industrial Areas >> September	Commercial/Industrial Areas >> October	Commercial/Industrial Areas >> November	Commercial/Industrial Areas >> December	Central Business District >> September	Central Business District >> October	Central Business District >> November	Central Business District >> December	21. What system do you use to notify people of leaf collection schedules?	22 Are parked cars notified to move for leaf collection?	23. Are obstructed areas revisited for leaf collection?
Addison	0	0	0	0	0	0	0	0	0	Printed material (newsletter, utility bill, mail) Official website or social media	No	No
Barrington												
Bartlett												
Bensenville												
Berkeley	0	4	4	4	0	4	4	4	0	Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Bloomingdale												
Bolingbrook										We do not notify residents	No	Yes
Brookfield										Official website or social media	Yes	Yes
Carol Stream										Printed material (newsletter, utility bill, mail) Official website or social media	No	No
Channahon										Printed material (newsletter, utility bill, mail) Official website or social media	No	No
Crest Hill												
Downers Grove												
Downers Grove Township												
Elk Grove Village	5									Printed material (newsletter, utility bill, mail) Official website or social media	Yes	Yes
Elmhurst										Printed material (newsletter, utility bill, mail) Official website or social media	No	No
Elwood												
Frankfort	1		3	4	1		3	4	1	Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Glen Ellyn	0									Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Glendale Heights		1	4	4						Printed material (newsletter, utility bill, mail)	Yes	Yes
Hanover Park												
Hoffman Estates												
Illinois DOT												
Itasca	0	0	0	0	0	0	0	0	0	Official website or social media	No	No
Joliet												
Lisle										Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Lockport	2	0	4	4	2	0	4	4	2	Official website or social media	No	Yes
Lombard										Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Manhattan						4	4	2		Printed material (newsletter, utility bill, mail)	No	No
Milton Township												

Simplified Agency Name	24. Where do you dispose of collected leaves?	25. Are residents encouraged to mulch/compost leaves?	26. Estimate how many catch basins you maintain?	27. Who conducts the catch basin cleanout operations on roads under your jurisdiction?	28. On average how many catch basins are cleaned per year?	29. How does your agency dispose of spoils from vactoring and sweeping?	Final comments:
Addison	Landfill	No	2400	In house	600	Landfill	25% of storm catch basins are cleaned every year, however, 100% of the 160 catch basins in the combined sewer area are cleaned annually.
Barrington			1000	In house Contractor(s)	150	Outside Contractor Landfill	
Bartlett			2500	In house	350	Landfill	
Bensenville			3200	In house	3200	Landfill	
Berkeley	Landfill	No	550	In house	0	Landfill	
Bloomingdale			1345	In house	270	Outside Contractor Landfill	
Bolingbrook	Landfill	Yes	4000	In house	2500	Landfill	
Brookfield	Landfill	Yes	2600	In house	200	Landfill	
Carol Stream	Landfill	Yes	3829	In house	300	Outside Contractor	
Channahon	Compost	No	3839	In house Contractor(s)	20	Outside Contractor	
Crest Hill			1115	In house	150	Landfill	
Downers Grove			718	In house Contractor(s)	179	Outside Contractor	
Downers Grove Township			820	In house Other public agency(s) or unit of government	40	Outside Contractor Landfill	
Elk Grove Village	Landfill	Yes	7000	In house	50	Vactor Station	
Elmhurst	Compost Landfill	Yes	4300	Contractor(s)	850	Outside Contractor	
Elwood			150	In house	1	Landfill	
Frankfort	Compost	No	2765	In house		Outside Contractor	
Glen Ellyn	Compost	Yes	3200	In house	750	Landfill	There are just over 6 miles of streets in the Village that are not improved (curb & gutter) so choose answers for percentages based on closest number. The Village does not have a commercial/industrial area outside of the Central Business District Leaf pickup is by sticker program, through contracted waste hauler, performed weekly until end of November
Glendale Heights	Landfill	No	1500	In house	100	Outside Contractor Landfill	
Hanover Park			5415	In house	1500	Outside Contractor	
Hoffman Estates			4200	In house	200	Landfill	
Illinois DOT			15000	In house	3000	Landfill	
Itasca	Landfill	Yes	1092	In house	218	Vactor Station	
Joliet			10000	In house	300	Landfill	
Lisle	Farm Field	Yes	2900	In house	350	Vactor Station	
Lockport	Compost	No	2115	In house	150	Landfill	
Lombard	Compost	Yes	6164	In house Contractor(s)	1541	Vactor Station Outside Contractor Landfill	
Manhattan	Landfill	Yes	200	In house	200	Outside Contractor	
Milton Township			125	In house	12	Outside Contractor	

Agency Name	Simplified Agency Name	1. How many centerline miles are managed under your purview?	2. Estimate the percentage of total centerline miles that are curb/gutter?	3. Estimate the percentage of total centerline miles that drain into combined sewers.	4. Do you have a street sweeping program?	5. Who conducts the street sweeping operations on roads under your purview?	6. How many centerline miles are included in street sweeping operations?	7. Estimate the percentage of total centerline miles that are swept that are curb/gutter?	Regenerative air with mechanical brush sweeper >> Lane Miles	Mechanical brush sweeper >> Lane Miles	Mechanical brush with vacuum assist >> Lane Miles	Other equipment (please describe below) >> Lane Miles
Village of Minooka	Minooka	63	75% (Three Quarters)	0%	Yes	Contractor(s)	63	75% (Three Quarters)			63	
Village of Mokena	Mokena	110	75% (Three Quarters)	0%	No (if no, proceed to Leaf Collection page)	In house Contractor(s)	110	75% (Three Quarters)				
City of Naperville	Naperville	431	75% (Three Quarters)	0%	Yes	In house, Contractor(s)	400	100%	400			
Naperville Township	Naperville Township	17	50% (Half)	50% (Half)	Yes	Contractor(s)	8	50% (Half)		8	8	0
Village of New Lenox	New Lenox	130.25	75% (Three Quarters)	0%	Yes	In house	130.25	75% (Three Quarters)	130.25			
North Riverside	North Riverside	33	100%	100%	Yes	In house	33	100%		33		
Village of Oak Brook	Oak Brook	55	66% (Two Thirds)	0%	Yes	In house Contractor(s)	55	66% (Two Thirds)	55			
City of Oakbrook Terrace	Oakbrook Terrace	73	50% (Half)	0%	Yes	Contractor(s)	73	100%		73		
Village of Orland Park	Orland Park	216.3	75% (Three Quarters)	0%	Yes	Contractor(s)	40	100%		40		
Village of Palatine	Palatine	156	75% (Three Quarters)	0%	Yes	In house	156	75% (Three Quarters)		156		
Village of Plainfield	Plainfield	208	75% (Three Quarters)	75% (Three Quarters)	Yes	In house	196	75% (Three Quarters)	99	99		
Village of Romeoville	Romeoville	135	100%	0%	Yes	In house	135	100%		135		
Village of Roselle	Roselle	75	75% (Three Quarters)	0%	Yes	Contractor(s)	75	75% (Three Quarters)	75	0	0	0
Village of Schaumburg	Schaumburg	219	75% (Three Quarters)	Not sure	Yes	In house Contractor(s)	219	75% (Three Quarters)	219			
Village of Shorewood	Shorewood	80	75% (Three Quarters)	0%	Yes	In house	60	100%			120	
Village of Streamwood	Streamwood	96	100%	0%	Yes	In house Contractor(s)	96	100%	96			
City of Warrenville	Warrenville	53	50% (Half)	0%	Yes	In house	28	100%		28		
Wayne Township Road District	Wayne Township	32	0%	0%	No (if no, proceed to Leaf Collection page)							
City of West Chicago	West Chicago	100	75% (Three Quarters)	0%	Yes	In house	90	100%	90			
Village of Western Springs	Western Springs	97	100%	50% (Half)	Yes	Contractor(s)	97	100%	0	0	97	0
City of Wheaton	Wheaton	167	75% (Three Quarters)	0%	Yes	In house	167	75% (Three Quarters)		83.5	83.5	
Village of Winfield	Winfield	32	50% (Half)	0%	Yes	Contractor(s)	16	100%			32	
Winfield Township Road District	Winfield Township	41	0%	Not sure	No (if no, proceed to Leaf Collection page)							
City of Wood Dale	Wood Dale	48	75% (Three Quarters)	0%	Yes	Contractor(s)	48	75% (Three Quarters)			48	
Village of Woodridge	Woodridge	195	100%	0%	Yes	Contractor(s)	195	100%			195	
York Township Highway Department	York Township	34	33% (Third)	0%	No (if no, proceed to Leaf Collection page)							

Simplified Agency Name	9. Other	9. Do your street sweeping operations change due to the increase of leaf litter in the fall?	9. Yes-Description of alterations to operations	10. How does your agency dispose of spoils from street sweeping?	Residential Areas >> January	Residential Areas >> February	Residential Areas >> March	Residential Areas >> April	Residential Areas >> May	Residential Areas >> June	Residential Areas >> July	Residential Areas >> August
Minooka		No		Landfill				1		1		1
Mokena		No		Outside Contractor								
Naperville		No		Outside Contractor				1				
Naperville Township		No		Outside Contractor	0			1				
New Lenox		Yes	Additional time spent sweeping areas with mature trees.	Outside Contractor			1	1	1	1	1	1
North Riverside		Yes	dump truck goes with sweeper	Outside Contractor			4	4	4	4	4	4
Oak Brook		No		Outside Contractor					1	1	1	1
Oakbrook Terrace		No		Outside Contractor			1		1		1	
Orland Park		No		Outside Contractor								
Palatine	None	Yes	Frequency increases to every other week in the fall	Outside Contractor Landfill			1		1		1	
Plainfield		No		Outside Contractor Landfill			1				1	1
Romeoville		Yes	additional sweeping	Landfill		1		1		1		1
Roselle		No		Outside Contractor	0	0	1	1	1	1	1	2
Schaumburg	none	Yes	There are two fall sweeping cycles due to natural leaf drop on village roadways.	Landfill			1				1	
Shorewood		Yes	Depending on leaf volume, we will shift to daily sweeping operations.	Landfill	0	0	4	4	4	4	4	4
Streamwood		Yes	More sweeping	Outside Contractor			1		1		1	1
Warrenville		Yes	Increase frequency	Landfill	0	0	0	1	1	1	1	1
Wayne Township												
West Chicago		Yes	one additional sweeper, manpower	Outside Contractor Landfill Fall leaves composted	0	0	17	15	15			
Western Springs		No		Outside Contractor					1	1	1	1
Wheaton		Yes	Increased frequency	Outside Contractor Landfill	1	1	1	1	1	1	1	1
Winfield	none	No	N/A	Landfill					1			
Winfield Township												
Wood Dale		Yes	Additional sweepings	Outside Contractor	0	0	0	2	1	1	1	1
Woodridge		Yes	additional Village wide sweeps are completed in the fall to remove leaves	Outside Contractor					1		1	
York Township												

Simplified Agency Name	Residential Areas >> September	Residential Areas >> October	Residential Areas >> November	Residential Areas >> December	Arterial Streets >> January	Arterial Streets >> February	Arterial Streets >> March	Arterial Streets >> April	Arterial Streets >> May	Arterial Streets >> June	Arterial Streets >> July	Arterial Streets >> August	Arterial Streets >> September	Arterial Streets >> October	Arterial Streets >> November	Arterial Streets >> December
Minooka		1		1				1		1		1		1		1
Mokena																
Naperville			1					1							1	
Naperville Township	1				0			1					1			
New Lenox	1	2	3				1	1	1	1	1	1	1	2	3	
North Riverside	4	4	4	2			4	4	4	4	4	4	4	4	4	2
Oak Brook	1	1							1	1	1	1	1	1		
Oakbrook Terrace			1				1		1		1				1	
Orland Park							1		1		1		1			
Palatine	1	2	2				1		1		1		1	2	2	
Plainfield			1					1		1		1		1		
Romeoville		1	1				1		1		1		1		1	
Roselle	2	2	2	0	0	0	1	1	1	1	1	2	2	2	2	0
Schaumburg		1	1				1				1			1	1	
Shorewood	4	20	20	0	0	0	4	4	4	4	4	4	4	20	20	0
Streamwood	1	1					1		1		1	1	1	1		
Warrenville	2	2	2	0	0	0	0	1	1	1	1	1	2	2	2	0
Wayne Township																
West Chicago					0	0	0									
Western Springs	1								1	1	1	1	1			
Wheaton	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Winfield									1							
Winfield Township																
Wood Dale	1	2	2	1	0	0	0	2	1	1	1	1	1	2	2	1
Woodridge		1	2						1		1			1	2	
York Township																

Simplified Agency Name	Commercial/Industrial Areas >> January	Commercial/Industrial Areas >> February	Commercial/Industrial Areas >> March	Commercial/Industrial Areas >> April	Commercial/Industrial Areas >> May	Commercial/Industrial Areas >> June	Commercial/Industrial Areas >> July	Commercial/Industrial Areas >> August	Commercial/Industrial Areas >> September	Commercial/Industrial Areas >> October	Commercial/Industrial Areas >> November	Commercial/Industrial Areas >> December	Central Business District >> January
Minooka				1		1		1		1		1	
Mokena													
Naperville													
Naperville Township	0												0
New Lenox			1	1	1	1	1	1	1	2	3		
North Riverside			4	4	4	4	4	4	4	4	4	2	
Oak Brook					2	2	2	2	2	2			
Oakbrook Terrace			1		1		1				1		
Orland Park													
Palatine			1		1		1		1	2	2		
Plainfield													
Romeoville			1		1		1		1		1		
Roselle	0	0	1	1	1	1	1	2	2	2	2	0	0
Schaumburg			1				1						
Shorewood	0	0	4	4	4	4	4	4	4	20	20	0	0
Streamwood			1		1		1	1	1	1			
Warrenville	0	0	0	1	1	1	1	1	2	2	2	0	0
Wayne Township													
West Chicago	0	0	0										0
Western Springs					1	1	1	1	1				
Wheaton	1	1	1	1	1	1	1	1	1	1	1	1	4
Winfield					1								
Winfield Township													
Wood Dale	0	0	0	2	1	1	1	1	1	2	2	1	0
Woodridge					1		1			1	2		
York Township													

Simplified Agency Name	Central Business District >> February	Central Business District >> March	Central Business District >> April	Central Business District >> May	Central Business District >> June	Central Business District >> July	Central Business District >> August	Central Business District >> September	Central Business District >> October	Central Business District >> November	Central Business District >> December	12. Do you have a leaf collection program?	13. Who conducts the leaf collection operations on roads under your jurisdiction?	15. How many centerline miles are included in leaf collection operations?
Minooka			1		1		1		1		1	Yes (updated)		
Mokena												Yes	In house Contractor(s)	110
Naperville		4	4	4	4	4	4	4	4			Yes	In house	375
Naperville Township												Yes	In house	17
New Lenox		1	1	1	1	1	1	1	2	3		Yes	In house	130.25
North Riverside		4	4	4	4	4	4	4	4	4	2	Yes (updated)		
Oak Brook												Yes	In house	55
Oakbrook Terrace		1		1		1				1		Yes	Contractor(s)	73
Orland Park		1		1		1		1				Yes	Waste Management has containers that provided to residents to fill.	216
Palatine		1		1		1		1	2	2		Yes	In house	156
Plainfield		1	1	1	1	1	1	1	1	1		Yes (updated)		
Romeoville												Yes (updated)		
Roselle	0	1	1	1	1	1	2	2	2	2	0	Yes (updated)		
Schaumburg		1				1						Yes (updated)		0
Shorewood	0	0	0	0	0	0	0	0	0	0	0	Yes	In house	80
Streamwood		1		1		1	1	1	1			Yes	Contractor(s)	96
Warrenville	0	0	1	1	1	1	1	2	2	2	0	Yes (updated)		
Wayne Township												No (if no, proceed to Catch Basin page)		
West Chicago	0	0										Yes	Waste and Recycling contractor collects residential leaves placed in craft bags on their normal collection day.	80
Western Springs				1	1	1	1	1				Yes	In house	97
Wheaton	4	4	4	4	4	4	4	4	4	4	4	Yes (updated)		
Winfield				1								Yes	Contractor(s)	32
Winfield Township												Yes	Contractor(s)	50
Wood Dale	0	0	2	1	1	1	1	1	2	2	1	Yes	Contractor(s)	48
Woodridge				1		1			1	2		Yes	Contractor(s)	195
York Township												No (if no, proceed to Catch Basin page)		

Simplified Agency Name	15. What percentage of centerline miles where leaves are collected are curb/gutter?	16. Where do you have residents place leaves for pickup?	17. How do you have residents place leaves for pickup?	18. How do you alter your leaf collection schedule due to rainfall?	19. Do you usually follow up leaf collection with street sweeping?	Residential Areas >> September	Residential Areas >> October	Residential Areas >> November	Residential Areas >> December	Arterial Streets >> September	Arterial Streets >> October	Arterial Streets >> November
Minooka			In bags/bins									
Mokena	75% (Three Quarters)	Parkway	In bags/bins	Schedule proceeds as usual Leaf collection is delayed to after predicted rainfall	No							
Naperville	100%	Street/Curb	Directly on ground/street	Schedule proceeds as usual	Yes							
Naperville Township	50% (Half)	Parkway	Directly on ground/street	Schedule proceeds as usual	No		2	4	1		2	4
New Lenox	75% (Three Quarters)	Parkway	Directly on ground/street	Schedule proceeds as usual	Yes	0	6	4	1	0	6	4
North Riverside	100%		In bags/bins									
Oak Brook	66% (Two Thirds)	Parkway	Directly on ground/street	Schedule proceeds as usual	Yes		1	1	1		1	1
Oakbrook Terrace	50% (Half)	Parkway	In bags/bins	Schedule proceeds as usual	No	4	4	4	2	4	4	4
Orland Park	75% (Three Quarters)	Street/Curb	In bags/bins	Schedule proceeds as usual	No	4	4	4	4	4	4	4
Palatine	75% (Three Quarters)	Street/Curb	Directly on ground/street	Schedule proceeds as usual	Yes	1	2	2		1	2	2
Plainfield			In bags/bins									
Romeoville			In bags/bins									
Roselle			In bags/bins									
Schaumburg			In bags/bins									
Shorewood	75% (Three Quarters)	Parkway	Directly on ground/street	Leaf collection is delayed to after predicted rainfall	Yes	0	20	20	0	0	0	0
Streamwood	100%	Street/Curb	In bags/bins	Schedule proceeds as usual	No	1	1	1		1	1	1
Warrenville			In bags/bins									
Wayne Township												
West Chicago	75% (Three Quarters)	Parkway	In bags/bins	Schedule proceeds as usual	No		5	20				
Western Springs	100%	Street/Curb	Directly on ground/street	Schedule proceeds as usual	No	0	3	4	1	0	3	4
Wheaton			In bags/bins									
Winfield	50% (Half)	Parkway	In bags/bins	Schedule proceeds as usual	No			3				3
Winfield Township	0%	Parkway	Directly on ground/street	Schedule proceeds as usual	No			1				
Wood Dale	75% (Three Quarters)	Parkway	In bags/bins	Schedule proceeds as usual	No	4	4	4	0	4	4	4
Woodridge	100%	Parkway	In bags/bins	Schedule proceeds as usual	Yes			4				4
York Township	0%											

Simplified Agency Name	Arterial Streets >> December	Commercial/Industrial Areas >> September	Commercial/Industrial Areas >> October	Commercial/Industrial Areas >> November	Commercial/Industrial Areas >> December	Central Business District >> September	Central Business District >> October	Central Business District >> November	Central Business District >> December	21. What system do you use to notify people of leaf collection schedules?	22 Are parked cars notified to move for leaf collection?	23. Are obstructed areas revisited for leaf collection?
Minooka												
Mokena										Printed material (newsletter, utility bill, mail) Official website or social media	Yes	Yes
Naperville										Printed material (newsletter, utility bill, mail), Official website or social media	No	Yes
Naperville Township	1									Printed material (newsletter, utility bill, mail) Official website or social media	Yes	Yes
New Lenox	1	0	6	4	1	0	0	0	0	Printed material (newsletter, utility bill, mail) Official website or social media		Yes
North Riverside												
Oak Brook	1		1	1	1					Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Oakbrook Terrace	2	4	4	4	2	4	4	4	2	Printed material (newsletter, utility bill, mail) Official website or social media	No	No
Orland Park	4	4	4	4	4	4	4	4	4	Printed material (newsletter, utility bill, mail) Official website or social media Waste Management Information	No	No
Palatine		0	0	0		0	0	0		Printed material (newsletter, utility bill, mail) Official website or social media	Yes	Yes
Plainfield												
Romeoville												
Roselle												
Schaumburg												
Shorewood	0	0	0	0	0	0	0	0	0	Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Streamwood		1	1	1		1	1	1		Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Warrenville												
Wayne Township												
West Chicago										Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Western Springs	1	0	3	4	1	0	3	4	1	Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Wheaton												
Winfield				0				0		Printed material (newsletter, utility bill, mail) Official website or social media	No	No
Winfield Township										Printed material (newsletter, utility bill, mail) Official website or social media signs posted at each entrance to neighbor hoods	No	No
Wood Dale	0	0	0	0	0	0	0	0	0	Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
Woodridge										Printed material (newsletter, utility bill, mail) Official website or social media	No	Yes
York Township												

Simplified Agency Name	28. Where do you dispose of collected leaves?	25. Are residents encouraged to mulch/compost leaves?	26. Estimate how many catch basins you maintain?	27. Who conducts the catch basin cleanout operations on roads under your jurisdiction?	28. On average how many catch basins are cleaned per year?	29. How does your agency dispose of spoils from vactoring and sweeping?	Final comments:
Minooka			2300	In house Contractor(s)	25	Landfill	
Mokena	Landfill	Yes	10000	In house Contractor(s)	100	Outside Contractor	
Naperville	Contractor hauls to fields	Yes	7263	In house	5000	Landfill	
Naperville Township	Compost Landfill	Yes	319	ublic agency(s) or unit of gove	319	Outside Contractor	
New Lenox	Compost	Yes	3130	In house	750	Outside Contractor Landfill	Leaf pick-up program runs continuously during October and November, with a final clean-up in December. One unit can do the entire Village multiple times per week early in the season, while two trucks are needed (with OT hours usually worked) to complete the Village once a week. The Street Sweeper cleans the entire Village once a month, then runs almost continuously in October and November. When weather allows, sweeping will start in March and finish in December.
North Riverside			350	Contractor(s)	100	Outside Contractor	In regards to leaf collection. We do not allow residents to stockpile leaves in the street. They are responsible to bag them and use yard waste collection to dispose. Many dump their yard waste containers at Public Works in the stockpile area. The pile is off loaded by an outside contractor to a landfill.
Oak Brook	Contractor handles disposa	Yes	450	Contractor(s)	150	Outside Contractor	
Oakbrook Terrace	Landfill	Yes	400	In house	400	Landfill	
Orland Park	ent disposes with other lan	Yes	350	In house	350	Outside Contractor	Our sweeping is only a specific list of main streets as well as certain Village parking lots and metra lots. Leaf collection is completely by Waste Management.
Palatine	Compost	Yes	3000	In house	500	Landfill	
Plainfield			1600	In house Contractor(s)	100	Landfill	
Romeoville			9000	In house	200	Landfill	
Roselle			1785	In house Contractor(s)	50	Outside Contractor	
Schaumburg			2222	In house	556	Vactor Station	
Shorewood	Compost	Yes	3000	In house	250	Landfill	
Streamwood	Landfill	Yes	500	Contractor(s)	50	Outside Contractor	
Warrenville			500	In house	25	Landfill	My estimate of 500 catch basins is truly an estimate. We are slowly getting better data in our GIS, but it is a work in progress.
Wayne Township			580	In house	580	no vactoring	
West Chicago	Compost	No	500	In house	50	Landfill	
Western Springs	Compost	Yes	2066	In house	50	Landfill	
Wheaton			5247	In house	1987	Vactor Station Landfill	All streets get swept at least once per month. Downtown gets swept once per week.
Winfield	Contractor handles disposa	No	1000	In house Contractor(s)	50	Outside Contractor	
Winfield Township	actor responsibility to dispo	Yes	100	In house Other public agency(s) or unit of government	30	Vactor Station	
Wood Dale	Removed by contractor	No	1000	In house	100	Vactor Station	
Woodridge	Contractor handles disposa	Yes	4000	In house Contractor(s)	150	Vactor Station	
York Township			380	In house	40	Dumpster	

Appendix C Questionnaire Status

Community/Township/Agency	Survey Status
Addison	Responded
Addison Township	Did Not Respond
Arlington Heights	Did Not Respond
Barrington	Responded
Bartlett	Responded
Bellwood	Did Not Respond
Bensenville	Responded
Berkeley	Responded
Bloomingdale	Responded
Bloomingdale Township	Did Not Respond
Bolingbrook	Responded
Broadview	Did Not Respond
Brookfield	Responded
Burr Ridge	Did Not Respond
Carol Stream	Responded
Channahon	Responded
Clarendon Hills	Did Not Respond
Crest Hill	Responded
Darien	Did Not Respond
Downers Grove	Responded
Downers Grove Township	Responded
Elk Grove Village	Responded
Elmhurst	Responded
Elwood	Responded
Frankfort	Responded
Frankfort Township	Did Not Respond
Glen Ellyn	Responded
Glendale Heights	Responded
Hanover Park	Responded
Hillside	Did Not Respond
Hinsdale	Did Not Respond
Hoffman Estates	Responded
Homer Glen	Did Not Respond
Illinois DOT	Responded
Inverness	Did Not Respond
Itasca	Responded
Jackson Township	Did Not Respond
Joliet	Responded
Joliet Township	Did Not Respond
La Grange	Did Not Respond
La Grange Park	Did Not Respond
Lemont	Did Not Respond

Appendix C Questionnaire Status

Community/Township/Agency	Survey Status
Lisle	Responded
Lisle Township	Did Not Respond
Lockport	Responded
Lockport Township	Did Not Respond
Lombard	Responded
Manhattan	Responded
Manhattan Township	Did Not Respond
Melrose Park	Did Not Respond
Milton Township	Responded
Minooka	Responded
Mokena	Responded
Naperville	Responded
Naperville Township	Responded
New Lenox	Responded
New Lenox Township	Did Not Respond
North Riverside	Responded
Northlake	Did Not Respond
Oak Brook	Responded
Oakbrook Terrace	Responded
Orland Hills	Did Not Respond
Orland Park	Responded
Palatine	Responded
Palos Park	Did Not Respond
Plainfield	Responded
Plainfield Township	Did Not Respond
Rockdale	Did Not Respond
Rolling Meadows	Did Not Respond
Romeoville	Responded
Roselle	Responded
Schaumburg	Responded
Shorewood	Responded
South Barrington	Did Not Respond
Stone Park	Did Not Respond
Streamwood	Responded
Tinley Park	Did Not Respond
Villa Park	Did Not Respond
Warrenville	Responded
Wayne	Did Not Respond
Wayne Township	Responded
West Chicago	Responded
Westchester	Did Not Respond
Western Springs	Responded

Appendix C Questionnaire Status

Community/Township/Agency	Survey Status
Westmont	Did Not Respond
Wheaton	Responded
Winfield	Responded
Winfield Township	Responded
Wood Dale	Responded
Woodridge	Responded
York Township	Responded

Appendix D Leaf Litter Mass Data

Location	Year	Cu. Yds.	lbs	g	ug TP	kg TP	lb TP
Elk Grove Village	2010	10254	3501741	1588389718	85773044750	85.77	188.93
	2011	14108	4817882	2185391275	1.18011E+11	118.01	259.94
	2012	6679	2280879	1034606488	55868750330	55.87	123.06
	2013	9513	3248690	1473605557	79574700089	79.57	175.27
	2014	7896	2696484	1223125142	66048757690	66.05	145.48
	2015	6726	2296929	1041886994	56261897698	56.26	123.92
	2016	6300	2151450	975897720	52698476880	52.70	116.08
	2017	6726	2296929	1041886994	56261897698	56.26	123.92
	2018	5696	1945184	882335462.4	47646114970	47.65	104.95
	2019	5785	1975578	896121954	48390585516	48.39	106.59
	2020	5376	1835904	832766054.4	44969366938	44.97	99.05
Lisle	1999	2,091	714077	323905100.4	17490875422	17.49	38.53
	2000	2,792	953468	432493084.8	23354626579	23.35	51.44
	2001	3,240	1106460	501890256	27102073824	27.10	59.70
	2002	4,740	1618710	734246856	39649330224	39.65	87.33
	2003	5,010	1710915	776071044	41907836376	41.91	92.31
	2004	4,440	1516260	687775536	37139878944	37.14	81.81
	2005	4,545	1552118	704040498	38018186892	38.02	83.74
	2006	4,365	1490648	676157706	36512516124	36.51	80.42
	2007	2,715	927173	420565446	22710534084	22.71	50.02
	2008	5,718	1952697	885743359.2	47830141397	47.83	105.35
	2009	6,360	2171940	985191984	53200367136	53.20	117.18
	2010	5,730	1956795	887602212	47930519448	47.93	105.57
	2011	6,255	2136083	968927022	52322059188	52.32	115.25
	2012	5,355	1828733	829513062	44793705348	44.79	98.66
	2013	6,075	2074613	941044230	50816388420	50.82	111.93
	2014	6,698	2287367	1037549671	56027682245	56.03	123.41
	2015	6015	2054123	931749966	50314498164	50.31	110.82
	2016	5170	1765555	800855748	43246210392	43.25	95.26
	2017	2550	870825	395006220	21330335880	21.33	46.98
	2018	4230	1444545	655245612	35383263048	35.38	77.94
	2019	5880	2008020	910837872	49185245088	49.19	108.34
	2020	5880	2008020	910837872	49185245088	49.19	108.34
Addison	2109	1,653	564500	256056973.2	13827076553	13.83	30.46
	2020	1,016	346964	157382870.4	8498675002	8.50	18.72
Streamwood		tons					
	2020	97	19400	8799840	475191360	0.48	1.05
West Chicago	2010	510	174165	79001244	4266067176	4.27	9.40
	2011	360	122940	55765584	3011341536	3.01	6.63
	2012	360	122940	55765584	3011341536	3.01	6.63
	2013	540	184410	83648376	4517012304	4.52	9.95
	2014	360	122940	55765584	3011341536	3.01	6.63
	2015	330	112695	51118452	2760396408	2.76	6.08
	2016	480	163920	74354112	4015122048	4.02	8.84
	2017	510	174165	79001244	4266067176	4.27	9.40
	2018	540	184410	83648376	4517012304	4.52	9.95
	2019	480	163920	74354112	4015122048	4.02	8.84
	2020	510	174165	79001244	4266067176	4.27	9.40

Appendix D Leaf Litter Mass Data

Location	Year	Cu. Yds.	lbs	g	ug TP	kg TP	lb TP
Lockport	2020	1800	614700	278827920	15056707680	15.06	33.16
Glen Ellyn	2020	700	239050	108433080	5855386320	5.86	12.90
	2019	1,000	341500	154904400	8364837600	8.36	18.42
	2018	900	307350	139413960	7528353840	7.53	16.58
	2017	800	273200	123923520	6691870080	6.69	14.74
	2016	900	307350	139413960	7528353840	7.53	16.58
	2015	630	215145	97589772	5269847688	5.27	11.61
	2014	540	184410	83648376	4517012304	4.52	9.95
New Lenox	Spring 2021	30	10245	4647132	250945128	0.25	
	Fall 2020	2500	853750	387261000	20912094000	20.91	
	Spring 2020	30	10245	4647132	250945128	0.25	
					Total 2020	21.16	46.61
	Fall 2019	2920	997180	452320848	24425325792	24.43	
	Spring 2019	40	13660	6196176	334593504	0.33	
					Total 2019	24.76	54.54
	Fall 2018	2915	995473	451546326	24383501604	24.38	
	Spring 2018	40	13660	6196176	334593504	0.33	
					Total 2018	24.72	54.45

Appendix D Leaf Litter Mass Data

MN leaves	300-383	lbs/cuyd	used thisto be consistant with MN data - from epa
average	342	lbs/cuyd	conversion tables
	454	g/lb	
	54	ug TP/g leaves	used value for whole oak leaves

In 2020

Community	lbs of Leaves	lb of TP
Elk Grove Village	1835904	99.05
Lisle	2008020	108.34
Addison	346964	18.72
Streamwood	19400	1.05
West Chicago	174165	9.40
Lockport	614700	33.16
Glen Ellyn	239050	12.90
New Lenox	863995	46.61

Addison

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	2,630	0	0%
Commercial	427,785	18,907	4%
Industrial	847,573	45,938	5%
Institutional	151,188	15,375	10%
Open Space	538,484	74,856	14%
Other	294,621	25,732	9%
Residential	2,757,671	830,226	30%
Trans/Comm/Util	195,925	7,529	4%
TOTAL	**5,215,877**	**1,018,564**	**20%**

Arlington Heights

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Commercial	145,305	18,940	13%
Industrial	2,675	16	1%
Institutional	6,533	324	5%
Open Space	24,294	5,866	24%
Residential	231,084	118,894	51%
Transprotation/Utilities	42,277	777	2%
Other	9,561	1,424	15%
Total	461,729	146,241	32%

Aurora

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	97,668	3,478	4%
Commercial	77,473	1,259	2%
Industrial	80,489	841	1%
Institutional	52,178	808	2%
Open Space	64,185	3,384	5%
Other	85,375	10,030	12%
Residential	561,421	57,919	10%
Trans/Comm/Util	84,663	3,906	5%
Total	1,103,453	81,624	7%

Barrington

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	3,892	133	3%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	19,432	1,002	5%
Residential	22,983	7,905	34%
Transprotation/Utilities	29,128	416	1%
Other	6,775	2,591	38%
Total	82,209	12,047	15%

Bartlett

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	75,950	19,433	26%
Commercial	85,245	8,925	10%
Industrial	12,541	1,214	10%
Institutional	99,025	9,348	9%
Open Space	120,605	11,048	9%
Residential	2,207,161	566,791	26%
Transprotation/Utilities	85,350	5,022	6%
Other	51,491	3,502	7%
Total	2,737,368	625,283	23%

Batavia

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	13,085	92	1%
Commercial	5,585	102	2%
Industrial	82,440	5,829	7%
Institutional	1,203	224	19%
Open Space	0	0	None
Other	26,081	441	2%
Residential	0	0	None
Trans/Comm/Util	2,795	1	0%
Total	131,189	6,689	5%

Bellwood

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	104,392	8,442	8%
Industrial	119,194	14,076	12%
Institutional	80,701	18,032	22%
Open Space	70,699	14,250	20%
Other	35,302	10,817	31%
Residential	1,123,511	501,595	45%
Trans/Comm/Util	207,589	24,291	12%
Total	1,741,388	591,503	34%

Bensenville

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	2,398	463	19%
Commercial	60,485	4,963	8%
Industrial	69,055	4,661	7%
Institutional	39,720	9,808	25%
Open Space	99,187	17,999	18%
Other	20,634	4,041	20%
Residential	643,235	281,112	44%
Trans/Comm/Util	27,726	3,513	13%
Total	962,440	326,560	34%

Berkeley

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	30,925	2,138	7%
Industrial	23,206	2,960	13%
Institutional	13,829	1,484	11%
Open Space	39,544	11,973	30%
Other	8,012	1,267	16%
Residential	398,621	193,166	48%
Trans/Comm/Util	245,034	14,926	6%
Total	759,171	227,913	30%

Bloomingdale

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	345,658	18,628	5%
Industrial	65,448	1,275	2%
Institutional	78,238	6,241	8%
Open Space	155,746	21,253	14%
Residential	1,796,726	452,701	25%
Transprotation/Utilities	32,966	1,790	5%
Other	72,316	7,973	11%

Total	2,547,098	509,861	20%

Bolingbrook

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	180,883	4,792	3%
Commercial	834,955	57,783	7%
Industrial	1,011,137	88,178	9%
Institutional	179,535	21,217	12%
Open Space	354,149	45,861	13%
Other	731,504	41,365	6%
Residential	6,352,269	1,778,917	28%
Trans/Comm/Util	378,628	18,650	5%
Total	10,023,060	2,056,761	21%

Brookfield

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	121,857	20,992	17%
Industrial	8,295	846	10%
Institutional	54,305	19,055	35%
Open Space	139,803	73,882	53%
Other	11,120	2,584	23%
Residential	1,421,373	678,945	48%
Trans/Comm/Util	128,048	14,095	11%
Total	1,884,801	810,399	43%

Carol Stream

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	35,681	966	3%
Commercial	248,590	6,618	3%
Industrial	500,658	21,279	4%
Institutional	109,639	5,150	5%
Open Space	138,435	9,014	7%
Other	65,479	1,917	3%
Residential	2,669,405	481,384	18%
Trans/Comm/Util	53,140	1,025	2%
Total	3,821,027	527,351	14%

Channahon

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	409,122	44,981	11%
Commercial	155,792	9,515	6%
Industrial	106,473	5,022	5%
Institutional	78,541	5,419	7%
Open Space	182,210	42,940	24%
Other	352,400	44,161	13%
Residential	1,356,322	186,631	14%
Trans/Comm/Util	47,534	7,501	16%
Total	2,688,393	346,169	13%

Clarendon Hills

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	10,904	586	5%
Industrial	0	0	None
Institutional	8,444	789	9%
Open Space	25,544	11,770	46%

Other	0	0	None
Residential	211,803	101,625	48%
Trans/Comm/Util	0	0	None
Total	256,695	114,771	45%

Crest Hill

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	114,870	1,868	2%
Commercial	170,835	4,263	2%
Industrial	55,427	1,593	3%
Institutional	42,381	1,489	4%
Open Space	47,421	3,978	8%
Other	108,949	14,612	13%
Residential	1,102,791	116,543	11%
Trans/Comm/Util	129,401	4,144	3%
Total	1,772,074	148,492	8%

Crystal Lawns

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	2,222	220	10%
Commercial	16,909	2,691	16%
Industrial	1,874	251	13%
Institutional	2,139	110	5%
Open Space	0	0	None
Other	2,490	859	34%
Residential	302,244	88,927	29%
Trans/Comm/Util	0	0	None
Total	327,878	93,057	28%

Darien

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	10,525	71	1%
Industrial	0	0	None
Institutional	6,425	531	8%
Open Space	20,287	2,019	10%
Other	972	39	4%
Residential	496,490	143,335	29%
Trans/Comm/Util	2,194	18	1%
Total	536,893	146,013	27%

Deer Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	0	0	0%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	0	0	0%
Residential	74,403	24,592	33%
Transprotation/Utilities	0	0	0%
Other	4,297	289	7%
Total	78,700	24,881	32%

Downers Grove

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	108,893	4,766	4%
Commercial	990,800	55,647	6%

Industrial	175,898	32,910	19%
Institutional	218,810	43,867	20%
Open Space	198,654	40,461	20%
Other	74,850	16,730	22%
Residential	4,793,573	1,809,668	38%
Trans/Comm/Util	428,512	15,502	4%
Total	6,989,990	2,019,549	29%

Downers Grove North Twp

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	15,397	554	4%
Industrial	0	0	0%
Institutional	64,551	9,327	14%
Open Space	1,235	706	57%
Residential	2,668,841	1,000,042	37%
Transprotation/Utilities	890,939	19,109	2%
Other	101,878	26,927	26%
Total	3,742,841	1,056,664	28%

Downers Grove South Twp

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	0	0	0%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	119	0	0%
Residential	1,054,461	265,801	25%
Transprotation/Utilities	0	0	0%
Other	12,689	7,866	62%
Total	1,067,270	273,667	26%

Elk Grove Village

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	142,667	15,405	11%
Industrial	10,115	1,115	11%
Institutional	127,319	25,659	20%
Open Space	255,724	37,841	15%
Residential	2,499,181	1,036,542	41%
Transprotation/Utilities	109,098	7,215	7%
Other	48,795	4,908	10%
Total	3,192,899	1,128,684	35%

Elmhurst

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	640,077	49,936	8%
Industrial	524,595	50,370	10%
Institutional	408,476	62,381	15%
Open Space	368,425	77,508	21%
Other	140,084	25,887	18%
Residential	3,936,774	1,779,384	45%
Trans/Comm/Util	331,086	36,031	11%
Total	6,349,517	2,081,498	33%

Elwood

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	275,041	12,637	5%
Commercial	16,173	134	1%
Industrial	103,614	1,407	1%
Institutional	503,725	16,735	3%
Open Space	109,355	2,004	2%
Residential	338,953	36,820	11%
Transprotation/Utilities	272,257	2,045	1%
Other	282,876	6,459	2%
Total	1,901,992	78,241	4%

Frankfort

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	655,284	29,443	0%
Commercial	386,236	22,121	6%
Industrial	146,527	8,822	0%
Institutional	129,276	9,356	7%
Open Space	229,034	30,387	13%
Residential	3,214,219	466,252	15%
Transprotation/Utilities	107,487	9,887	9%
Other	874,207	31,626	4%
Total	5,742,270	607,894	11%

Franklin Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	0	0	None
Industrial	22,305	473	2%
Institutional	8,400	22	0%
Open Space	0	0	None
Other	0	0	None
Residential	0	0	None
Trans/Comm/Util	6,057	49	1%
Total	36,762	544	1%

Geneva

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	13,595	2,307	17%
Commercial	4,760	258	5%
Industrial	26,659	1,874	7%
Institutional	940	0	0%
Open Space	100	0	0%
Other	6,484	395	6%
Residential	23,376	4,917	21%
Trans/Comm/Util	22,845	351	2%
Total	98,758	10,103	10%

Glen Ellyn

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	227,657	22,785	10%
Industrial	0	0	None
Institutional	181,182	29,391	16%
Open Space	187,487	51,174	27%
Other	46,361	20,702	45%
Residential	2,321,987	1,044,902	45%
Trans/Comm/Util	36,680	2,542	7%

Total	3,001,354	1,171,496	39%

Glendale Heights

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	15,817	758	5%
Commercial	242,240	10,104	4%
Industrial	216,908	14,331	7%
Institutional	62,950	6,091	10%
Open Space	84,232	10,352	12%
Other	58,101	7,303	13%
Residential	1,605,232	489,138	30%
Trans/Comm/Util	34,767	2,716	8%
Total	2,320,247	540,793	23%

Hanover Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	148,325	14,076	0%
Commercial	197,479	11,312	6%
Industrial	188,918	2,608	1%
Institutional	83,517	11,552	14%
Open Space	108,991	9,304	9%
Residential	2,361,494	806,867	34%
Transprotation/Utilities	236,856	11,314	5%
Other	124,669	30,102	24%
Total	3,450,249	897,134	26%

Hillside

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	249,163	11,834	5%
Industrial	131,543	16,895	13%
Institutional	151,061	17,766	12%
Open Space	78,346	13,838	18%
Other	30,352	4,016	13%
Residential	694,146	284,645	41%
Trans/Comm/Util	256,966	21,734	8%
Total	1,591,578	370,728	23%

Hinsdale

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	43,782	8,317	19%
Industrial	0	0	None
Institutional	9,540	2,435	26%
Open Space	52,384	5,252	10%
Other	3,550	1,101	31%
Residential	356,397	171,326	48%
Trans/Comm/Util	180	0	0%
Total	465,834	188,431	40%

Hoffman Estates

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	91,403	7,488	8%
Industrial	8,583	528	6%
Institutional	52,829	9,302	18%
Open Space	188,250	36,460	19%
Residential	2,517,398	1,066,407	42%

Transprotation/Utilities	78,669	1,427	2%
Other	16,855	1,228	7%
Total	2,953,987	1,122,841	38%

Illinois DOT

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	0	0	0%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	0	0	0%
Residential	0	0	0%
Transprotation/Utilities	0	0	0%
Other	0	0	0%
Total	0	0	0%

Inverness

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	10,233	556	5%
Industrial	0	0	0%
Institutional	20,947	4,580	22%
Open Space	58,592	23,852	41%
Residential	1,533,808	572,702	37%
Transprotation/Utilities	27,632	8,866	32%
Other	73,083	31,789	43%
Total	1,724,294	642,346	37%

Itasca

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	376	119	32%
Commercial	343,846	18,189	5%
Industrial	611,267	50,996	8%
Institutional	52,067	9,044	17%
Open Space	231,910	42,642	18%
Residential	1,003,595	314,441	31%
Transprotation/Utilities	309,037	11,349	4%
Other	258,110	14,619	6%
Total	2,810,208	461,399	16%

Joliet

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	314,258	24,188	8%
Commercial	1,049,845	82,547	8%
Industrial	322,585	23,189	7%
Institutional	393,345	33,418	8%
Open Space	360,580	55,443	15%
Other	655,227	38,181	6%
Residential	7,935,752	1,686,720	21%
Trans/Comm/Util	379,523	23,030	6%
Total	11,411,117	1,966,716	17%

La Grange

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	83,636	10,666	13%
Industrial	37,804	2,924	8%

Institutional	73,231	26,081	36%
Open Space	48,784	14,107	29%
Other	17,670	4,037	23%
Residential	834,805	503,218	60%
Trans/Comm/Util	178,553	21,566	12%
Total	1,274,482	582,601	46%

La Grange Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	46,060	6,468	14%
Industrial	6,155	1,284	21%
Institutional	47,281	15,171	32%
Open Space	64,800	39,179	60%
Other	3,835	935	24%
Residential	1,030,677	619,917	60%
Trans/Comm/Util	55,488	13,071	24%
Total	1,254,297	696,025	55%

Lisle

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	8,869	292	3%
Commercial	525,509	36,800	7%
Industrial	71,599	8,580	12%
Institutional	147,518	8,884	6%
Open Space	179,457	25,891	14%
Other	161,637	24,998	15%
Residential	1,842,081	467,996	25%
Trans/Comm/Util	394,726	19,619	5%
Total	3,331,397	593,059	18%

Lockport

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	269,870	7,453	0%
Commercial	217,195	17,650	8%
Industrial	64,562	8,176	13%
Institutional	159,372	16,593	10%
Open Space	93,868	18,858	20%
Residential	2,765,534	513,643	19%
Transprotation/Utilities	293,535	14,904	5%
Other	852,837	44,937	5%
Total	4,716,772	642,213	14%

Lombard

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	762,709	51,773	7%
Industrial	146,228	15,141	10%
Institutional	200,564	33,938	17%
Open Space	322,103	47,272	15%
Other	175,655	15,524	9%
Residential	3,678,246	1,195,505	33%
Trans/Comm/Util	257,425	10,933	4%
Total	5,542,929	1,370,085	25%

Lyons

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy

Agriculture	0	0	None
Commercial	15,784	1,008	6%
Industrial	650	14	2%
Institutional	1,300	184	14%
Open Space	12,668	5,486	43%
Other	4,227	2,210	52%
Residential	85,762	37,511	44%
Trans/Comm/Util	100	1	1%
Total	120,491	46,415	39%

Manhattan

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	569,883	7,445	1%
Commercial	42,677	1,334	3%
Industrial	10,586	155	1%
Institutional	37,756	2,620	7%
Open Space	37,988	2,770	7%
Residential	869,484	75,782	9%
Transprotation/Utilities	60,783	1,261	2%
Other	514,069	2,120	0%
Total	2,143,224	93,487	4%

Maywood

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	5,566	207	4%
Industrial	214	0	0%
Institutional	7,754	577	7%
Open Space	777	568	73%
Other	0	0	None
Residential	74,718	22,473	30%
Trans/Comm/Util	1,297	64	5%
Total	90,325	23,888	26%

Melrose Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	75,547	4,919	7%
Industrial	133,926	10,037	7%
Institutional	35,142	3,952	11%
Open Space	4,365	1,172	27%
Other	9,781	2,362	24%
Residential	224,607	90,158	40%
Trans/Comm/Util	162,111	6,677	4%
Total	645,479	119,278	18%

Milton Twp

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	9,050	337	4%
Commercial	820,915	58,287	7%
Industrial	173,511	15,280	9%
Institutional	722,224	121,381	17%
Open Space	3,330,985	497,741	15%
Residential	29,883,099	11,230,219	38%
Transprotation/Utilities	1,153,515	95,403	8%
Other	1,553,764	352,203	23%
Total	37,647,064	12,370,850	33%

Minooka

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	459,463	22,683	5%
Commercial	50,920	1,866	4%
Industrial	0	0	None
Institutional	0	0	None
Open Space	4,176	54	1%
Other	92,087	7,445	8%
Residential	551,699	49,316	9%
Trans/Comm/Util	129,324	10,589	8%
Total	1,287,669	91,954	7%

Mokena

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	114,118	5,544	5%
Commercial	318,029	14,127	4%
Industrial	228,966	16,108	7%
Institutional	49,545	6,810	14%
Open Space	81,594	7,192	9%
Residential	2,671,729	406,699	15%
Transprotation/Utilities	139,706	7,950	6%
Other	625,058	18,666	3%
Total	4,228,745	483,096	11%

Naperville

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	207,184	4,758	2%
Commercial	1,779,245	86,616	5%
Industrial	271,959	7,744	3%
Institutional	616,758	51,152	8%
Open Space	727,095	82,632	11%
Other	575,792	21,501	4%
Residential	13,956,352	3,332,626	24%
Trans/Comm/Util	446,465	17,068	4%
Total	18,580,850	3,604,098	19%

Naperville Township

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	0	0	0%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	0	0	0%
Residential	0	0	0%
Transprotation/Utilities	0	0	0%
Other	0	0	0%
Total	0	0	0%

New Lenox

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	1,323,680	27,503	0%
Commercial	333,972	17,248	5%
Industrial	168,529	10,412	6%
Institutional	225,671	11,620	5%
Open Space	350,418	17,800	5%
Residential	3,416,980	439,193	13%
Transprotation/Utilities	357,948	15,807	4%

Other	1,069,918	37,632	4%
Total	7,247,116	577,215	8%

Northlake

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	162,550	10,273	6%
Industrial	225,774	9,547	4%
Institutional	100,365	11,021	11%
Open Space	38,930	3,823	10%
Other	77,948	7,805	10%
Residential	681,917	178,014	26%
Trans/Comm/Util	269,795	12,313	5%
Total	1,557,278	232,798	15%

North Riverside

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	24,704	2,313	9%
Industrial	0	0	0%
Institutional	8,401	2,300	27%
Open Space	8,372	3,266	39%
Residential	253,689	125,062	49%
Transprotation/Utilities	1,168	80	7%
Other	0	0	0%
Total	296,334	133,022	45%

Oak Brook

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	14	0	0%
Industrial	0	0	None
Institutional	413	51	12%
Open Space	1,517	124	8%
Other	904	72	8%
Residential	9,214	2,867	31%
Trans/Comm/Util	102	0	0%
Total	12,164	3,114	26%

Oakbrook Terrace

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	1,268	0	0%
Industrial	0	0	None
Institutional	2,323	16	1%
Open Space	18	0	0%
Other	2,898	510	18%
Residential	1,605	16	1%
Trans/Comm/Util	0	0	None
Total	8,111	541	7%

Orland Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	71,097	16,398	23%
Commercial	170,244	45,145	27%
Industrial	12,605	2,137	17%
Institutional	63,560	15,434	24%

Open Space	186,509	62,102	33%
Residential	1,804,818	639,447	35%
Transprotation/Utilities	65,558	15,853	24%
Other	96,926	22,517	23%
Total	2,471,317	819,033	33%

Oswego

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	2,099	105	5%
Commercial	566	4	1%
Industrial	0	0	None
Institutional	0	0	None
Open Space	0	0	None
Other	320	0	0%
Residential	1,303	148	11%
Trans/Comm/Util	0	0	None
Total	4,287	257	6%

Palatine

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	603	0	0%
Commercial	411,663	54,235	13%
Industrial	100,878	18,169	18%
Institutional	290,238	47,636	16%
Open Space	268,930	68,790	26%
Residential	4,229,184	1,817,014	43%
Transprotation/Utilities	420,738	48,884	12%
Other	109,152	29,079	27%
Total	5,831,386	2,083,805	36%

Plainfield

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	499,147	15,458	3%
Commercial	385,772	12,668	3%
Industrial	114,329	3,654	3%
Institutional	192,787	6,295	3%
Open Space	244,008	19,643	8%
Other	815,738	15,473	2%
Residential	4,399,094	479,734	11%
Trans/Comm/Util	217,427	18,704	9%
Total	6,868,301	571,630	8%

Rockdale

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	27,223	2,285	8%
Industrial	82,167	5,407	7%
Institutional	12,743	1,158	9%
Open Space	10,759	1,513	14%
Other	16,384	3,613	22%
Residential	222,442	51,004	23%
Trans/Comm/Util	11,684	1,881	16%
Total	383,402	66,862	17%

Romeoville

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	172,741	3,693	2%

Commercial	282,688	7,739	3%
Industrial	384,222	13,699	4%
Institutional	53,639	1,322	2%
Open Space	58,069	5,535	10%
Other	296,440	5,047	2%
Residential	1,851,020	231,312	12%
Trans/Comm/Util	200,407	6,304	3%
Total	3,299,225	274,651	8%

Rolling Meadows

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	584,559	54,824	9%
Industrial	189,575	22,617	12%
Institutional	127,672	21,961	17%
Open Space	75,064	6,105	8%
Residential	1,629,699	687,838	42%
Transprotation/Utilities	470,616	10,326	2%
Other	54,518	4,651	9%
Total	3,131,704	808,322	26%

Roselle

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	5,942	5	0%
Commercial	168,798	13,000	8%
Industrial	137,058	9,849	7%
Institutional	92,457	13,378	14%
Open Space	63,045	11,823	19%
Residential	2,088,739	565,617	27%
Transprotation/Utilities	42,395	2,128	5%
Other	221,155	17,075	8%
Total	2,819,590	632,874	22%

Schaumburg

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	6,067	859	14%
Commercial	1,566,165	142,799	9%
Industrial	409,978	46,380	11%
Institutional	237,166	45,187	19%
Open Space	498,640	60,885	12%
Residential	4,442,036	1,651,562	37%
Transprotation/Utilities	973,888	62,292	6%
Other	247,988	25,453	10%
Total	8,381,928	2,035,417	24%

Shorewood

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	189,363	4,329	2%
Commercial	363,007	21,938	6%
Industrial	61,062	2,628	4%
Institutional	58,275	5,834	10%
Open Space	121,594	20,254	17%
Other	489,661	20,881	4%
Residential	2,051,805	331,155	16%
Trans/Comm/Util	109,679	1,033	1%
Total	3,444,447	408,052	12%

St. Charles

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	11,692	0	0%
Commercial	83,411	7,125	9%
Industrial	42,977	5,241	12%
Institutional	0	0	None
Open Space	15,329	415	3%
Other	20,080	673	3%
Residential	5,113	978	19%
Trans/Comm/Util	4,288	192	4%
Total	182,891	14,625	8%

Stone Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	88,431	10,163	11%
Industrial	18,475	571	3%
Institutional	7,624	351	5%
Open Space	1,915	777	41%
Other	7,197	1,151	16%
Residential	174,127	45,043	26%
Trans/Comm/Util	12,731	102	1%
Total	310,500	58,158	19%

Streamwood

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	23,822	2,033	9%
Industrial	116,178	9,054	8%
Institutional	1,083	140	13%
Open Space	0	0	0%
Residential	185,589	69,834	38%
Transprotation/Utilities	28,897	5,962	21%
Other	73,902	9,499	13%
Total	429,472	96,521	22%

Villa Park

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	360,183	17,193	5%
Industrial	96,047	8,633	9%
Institutional	81,623	18,748	23%
Open Space	130,118	40,036	31%
Other	40,839	7,353	18%
Residential	1,718,327	874,629	51%
Trans/Comm/Util	43,874	3,562	8%
Total	2,471,011	970,156	39%

Warrenville

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	24,140	7,289	30%
Commercial	458,217	11,028	2%
Industrial	32,913	1,793	5%
Institutional	73,704	12,309	17%
Open Space	168,508	41,870	25%
Other	177,438	22,980	13%
Residential	1,350,919	358,251	27%
Trans/Comm/Util	110,953	2,482	2%

Total	2,396,793	458,001	19%

Wayne Township

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	0	0	0%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	0	0	0%
Residential	0	0	0%
Transprotation/Utilities	0	0	0%
Other	0	0	0%
Total	0	0	0%

West Chicago

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	302,095	13,196	4%
Commercial	281,355	14,384	5%
Industrial	354,467	26,180	7%
Institutional	119,594	17,840	15%
Open Space	154,858	27,600	18%
Other	288,536	26,043	9%
Residential	1,671,773	455,112	27%
Trans/Comm/Util	229,849	8,315	4%
Total	3,402,527	588,669	17%

Western Springs

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	24,254	4,638	19%
Industrial	0	0	None
Institutional	38,269	15,016	39%
Open Space	27,801	12,274	44%
Other	1,190	671	56%
Residential	514,332	317,714	62%
Trans/Comm/Util	55,774	8,427	15%
Total	661,620	358,740	54%

Westchester

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	6,603	12	0%
Industrial	576	0	0%
Institutional	4,149	306	7%
Open Space	4,466	4	0%
Other	61	0	0%
Residential	7,894	339	4%
Trans/Comm/Util	1,782	7	0%
Total	25,532	668	3%

Westmont

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	None
Commercial	322,364	11,679	4%
Industrial	33,935	5,358	16%
Institutional	28,016	1,573	6%
Open Space	122,691	13,872	11%

Other	30,463	3,562	12%
Residential	1,045,495	310,634	30%
Trans/Comm/Util	18,357	391	2%
Total	1,601,321	347,070	22%

Wheaton

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	1,399	234	17%
Commercial	415,375	38,814	9%
Industrial	22,351	2,665	12%
Institutional	323,395	65,286	20%
Open Space	235,333	50,372	21%
Other	63,424	14,592	23%
Residential	4,523,378	1,849,379	41%
Trans/Comm/Util	46,398	6,545	14%
Total	5,631,054	2,027,887	36%

Winfield

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	8,990	712	8%
Commercial	42,891	2,664	6%
Industrial	10,168	1,107	11%
Institutional	58,806	6,187	11%
Open Space	41,938	7,243	17%
Other	37,494	9,358	25%
Residential	965,035	248,452	26%
Trans/Comm/Util	17,684	1,277	7%
Total	1,183,006	276,999	23%

Winfield Township

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	0	0	0%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	0	0	0%
Residential	0	0	0%
Transprotation/Utilities	0	0	0%
Other	0	0	0%
Total	0	0	0%

Wood Dale

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	88,854	4,991	6%
Industrial	117,246	8,489	7%
Institutional	21,699	2,444	11%
Open Space	101,624	12,886	13%
Residential	627,288	187,066	30%
Transprotation/Utilities	47,978	2,160	5%
Other	79,005	13,742	17%
Total	1,083,693	231,778	21%

Woodridge

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	46,035	1,661	4%
Commercial	275,494	14,754	5%

Industrial	45,562	1,977	4%
Institutional	96,467	8,768	9%
Open Space	303,624	33,750	11%
Other	171,757	16,052	9%
Residential	2,620,079	619,686	24%
Trans/Comm/Util	142,721	7,297	5%
Total	3,701,738	703,945	19%

York Township

LandUse Type	Total ROW (sq. ft.)	Tree Canopy (sq. ft.)	Percent Tree Canopy
Agriculture	0	0	0%
Commercial	0	0	0%
Industrial	0	0	0%
Institutional	0	0	0%
Open Space	0	0	0%
Residential	0	0	0%
Transprotation/Utilities	0	0	0%
Other	0	0	0%
Total	0	0	0%

Appendix F New Removal Rate Calculations

	Precentile	
	25%	50%
all	0.05720	0.10284
>=17	0.07268	0.12720
P8	*0.00017*	*0.0002*

Minnesota P8 Study Data w/Canopy Cover >=17%

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.478900137	0.465783669	17
0.527021071	0.512586632	17
0.331667545	0.322583591	17
0.073925248	0.071900529	17
0.347252324	0.337741523	17
0.201400076	0.195883983	17
0.267683037	0.260351537	17
0.022440592	0.021825972	17
0.080435504	0.078232478	17
0.204715671	0.199108768	17
0.52839083	0.513918875	17
0.240855876	0.234259138	19.3
0.070310758	0.068385035	19.3
0.046610845	0.045334233	19.3
0.643287675	0.625668841	19.3
0.360495987	0.350622458	19.3
0.183081466	0.178067096	19.3
0.716827909	0.6971949	19.3
0.145159999	0.14118425	19.3
0.119446742	0.116175247	19.3
0.074772407	0.072724486	19.3
0.109852351	0.106843634	19.3
0.107849428	0.104895569	19.3
0.245481878	0.23875844	19.3
0.136628564	0.132886481	19.3
1.073656048	1.044249969	19.3
0.075624321	0.073553067	19.3
0.170524229	0.165853786	19.3
0.183592089	0.178563734	19.3
0.11043868	0.107413904	19.3
0.067262452	0.065420219	19.3
0.065425923	0.06363399	19.3
0.062561469	0.06084799	19.3
0.052736493	0.051292107	19.3
0.117863162	0.114635039	19.3
0.042273844	0.041116017	19.3
0.105693272	0.102798467	19.3
0.284970702	0.277165716	19.3
0.193399832	0.188102856	19.3
0.045820497	0.044565531	19.3
0.070030021	0.068111987	19.3
0.035609182	0.034633892	19.3

Minnesota P8 Study Data

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.143794393	0.139856047	8
0.181163053	0.176201226	8
0.113477515	0.110369509	8
0.042256299	0.041098953	8
0.056556681	0.055007666	8
0.12277908	0.119416317	8
0.365527176	0.35551585	6
0.379844655	0.369441191	6
0.242530154	0.235887561	6
0.152576178	0.14839731	6
0.391064264	0.380353509	6
0.050018833	0.04864888	6
0.364798781	0.354807405	1
0.178221491	0.173340231	1
0.089046387	0.086607519	1
0.118716956	0.115465448	1
0.098689377	0.0959864	1
0.20550576	0.199877218	1
0.134710623	0.13102107	1
0.092302775	0.089774719	1
0.059127001	0.057507587	1
0.021115188	0.020536869	1
0.478900137	0.465783669	17
0.527021071	0.512586632	17
0.331667545	0.322583591	17
0.073925248	0.071900529	17
0.347252324	0.337741523	17
0.201400076	0.195883983	17
0.267683037	0.260351537	17
0.022440592	0.021825972	17
0.080435504	0.078232478	17
0.204715671	0.199108768	17
0.52839083	0.513918875	17
0.259906174	0.252787673	6
0.132776646	0.129140062	6
0.128927288	0.125396133	6
0.36422708	0.354251362	6
0.278882951	0.2712447	6
0.199910351	0.19443506	6
0.061952556	0.060255754	6
0.171727795	0.167024388	6
0.228549334	0.222289657	8
0.074491629	0.072451398	8
0.080647635	0.078438798	8
0.098955147	0.09624489	8
0.136977135	0.133225505	8
0.119204238	0.115939385	8
0.074832994	0.072783413	8
0.035477539	0.034505854	8
0.10017293	0.09742932	8

Appendix F New Removal Rate Calculations

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.05851956	0.056916784	19.3
0.032602519	0.031709577	19.3
0.113142866	0.110044026	19.3
0.647701793	0.629962062	19.3
0.06912749	0.067234176	19.3
0.112332124	0.109255489	19.3
0.052864941	0.051417038	19.3
0.091088972	0.088594161	19.3
0.100160089	0.097416831	19.3
0.087442626	0.085047683	19.3
0.082874964	0.080605123	19.3
0.41256064	0.401261127	19.3
0.677304458	0.658753947	19.3
0.433141	0.421277817	19.3
0.152699775	0.148517521	19.3
0.194804118	0.18946868	19.3
0.238792151	0.232251936	19.3
0.206325979	0.200674972	19.3
0.287412928	0.279541052	19.3
0.105740543	0.102844443	19.3
0.070645864	0.068710963	19.3
0.075200241	0.073140602	19.3
0.043945664	0.042742048	19.3
0.127363866	0.123875531	19.3
0.091996654	0.089476982	19.3
0.119630381	0.116353857	19.3
0.126868748	0.123393974	19.3
0.052645421	0.051203529	19.3
0.090521795	0.088042518	19.3
0.070510782	0.068579581	19.3
0.108744609	0.105766232	19.3
0.139856099	0.136025618	19.3
0.186558099	0.181448509	19.3
0.145794484	0.141801358	19.3
0.151404654	0.147257872	19.3
0.05515264	0.053642079	19.3
0.059794225	0.058156537	19.3
0.054787329	0.053286773	19.3
0.162537151	0.158085465	19.3
0.149017445	0.144936045	19.3
0.099861489	0.097126409	19.3
0.004490739	0.004367744	19.3
0.054353506	0.052864833	19.3
0.074594169	0.072551129	19.3
0.424714983	0.413082577	31.97277016
0.139914176	0.136082104	31.97277016
0.134194721	0.130519298	31.97277016
0.226190842	0.219995761	31.97277016
0.245530389	0.238805623	31.97277016
0.330467202	0.321416124	20.80951409
0.334550736	0.325387816	20.80951409

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.10818992	0.105226735	8
0.133695106	0.130033366	8
0.286432144	0.27858713	11
0.188181192	0.183027148	11
0.28081756	0.273126323	11
0.240785981	0.234191158	11
0.066770441	0.064941683	11
0.210205201	0.204447946	7
0.080937887	0.078721101	7
0.069750236	0.067839866	7
0.096768789	0.094118415	7
0.086087272	0.083729451	7
0.052988543	0.051537254	6
0.027801878	0.02704042	6
0.194443883	0.189118311	6
0.039560802	0.038477282	6
0.098309991	0.095617405	6
0.851886835	0.828554733	6.9
0.995444817	0.968180845	6.9
0.155284578	0.15103153	6.9
0.115524223	0.112360161	6.9
0.479177349	0.466053289	6.9
0.518418	0.504219188	6.9
0.421660991	0.410112231	6.9
0.250663568	0.24379821	6.9
0.087976222	0.085566664	6.9
0.051400724	0.049992923	6.9
0.04224118	0.041084248	6.9
0.279328302	0.271677853	6.9
0.202631502	0.197081682	6.9
0.188852048	0.18367963	6.9
0.291938947	0.283943109	6.9
0.144744138	0.140779779	6.9
0.125281335	0.121850037	6.9
0.134962056	0.131265617	6.9
0.099513948	0.096788387	6.9
0.556795477	0.541545555	15.1
0.304192125	0.295860688	15.1
0.520890258	0.506623733	15.1
0.714925069	0.695344177	15.1
0.658252579	0.640223875	15.1
0.052738645	0.0512942	15.1
0.41056989	0.399324901	15.1
0.320529934	0.311751025	15.1
0.209483851	0.203746353	15.1
0.180158178	0.175223874	15.1
0.511533347	0.497523096	15.1
0.15567568	0.151411921	15.1
0.083681728	0.081389791	15.1
0.074379302	0.072342147	15.1
0.066144215	0.064332609	15.1

Appendix F New Removal Rate Calculations

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.104178189	0.10132488	20.80951409
0.079183677	0.077014936	20.80951409
0.253074568	0.246143176	20.80951409
0.814911348	0.792591959	34.02415099
0.138941264	0.135135839	34.02415099
0.050534163	0.049150096	34.02415099
0.209257675	0.203526372	34.02415099
0.321878567	0.31306272	37.44161296
0.1034855	0.100651163	37.44161296
0.24246091	0.235820213	37.44161296
0.313148159	0.304571427	37.44161296
0.785358335	0.763848365	19.59
0.832996237	0.810181525	19.59
0.404514356	0.39343522	19.59
1.482767623	1.442156496	19.59

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.05248814	0.051050557	15.1
0.155356253	0.151101242	15.1
0.062941019	0.061217145	15.1
0.355438113	0.345703113	15.1
0.473400756	0.460434909	15.1
0.171951978	0.167242431	15.1
0.38325509	0.372758219	15.1
0.167863037	0.163265481	15.1
0.028692572	0.027906719	15.1
0.268273997	0.260926312	15.1
0.183142091	0.178126061	15.1
0.137603833	0.133835039	15.1
0.29273069	0.284713167	15.1
0.099761184	0.097028851	15.1
0.108554498	0.105581328	15.1
0.111375094	0.108324671	15.1
0.035350744	0.034382532	15.1
0.240855876	0.234259138	19.3
0.070310758	0.068385035	19.3
0.046610845	0.045334233	19.3
0.643287675	0.625668841	19.3
0.360495987	0.350622458	19.3
0.183081466	0.178067096	19.3
0.716827909	0.6971949	19.3
0.145159999	0.14118425	19.3
0.119446742	0.116175247	19.3
0.074772407	0.072724486	19.3
0.109852351	0.106843634	19.3
0.107849428	0.104895569	19.3
0.245481878	0.23875844	19.3
0.136628564	0.132886481	19.3
1.073656048	1.044249969	19.3
0.075624321	0.073553067	19.3
0.170524229	0.165853786	19.3
0.183592089	0.178563734	19.3
0.11043868	0.107413904	19.3
0.067262452	0.065420219	19.3
0.065425923	0.06363399	19.3
0.062561469	0.06084799	19.3
0.052736493	0.051292107	19.3
0.117863162	0.114635039	19.3
0.042273844	0.041116017	19.3
0.105693272	0.102798467	19.3
0.284970702	0.277165716	19.3
0.193399832	0.188102856	19.3
0.045820497	0.044565531	19.3
0.070030021	0.068111987	19.3
0.035609182	0.034633892	19.3
0.05851956	0.056916784	19.3
0.032602519	0.031709577	19.3
0.113142866	0.110044026	19.3

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.647701793	0.629962062	19.3
0.06912749	0.067234176	19.3
0.112332124	0.109255489	19.3
0.052864941	0.051417038	19.3
0.091088972	0.088594161	19.3
0.100160089	0.097416831	19.3
0.087442626	0.085047683	19.3
0.082874964	0.080605123	19.3
0.41256064	0.401261127	19.3
0.677304458	0.658753947	19.3
0.433141	0.421277817	19.3
0.152699775	0.148517521	19.3
0.194804118	0.18946868	19.3
0.238792151	0.232251936	19.3
0.206325979	0.200674972	19.3
0.287412928	0.279541052	19.3
0.105740543	0.102844443	19.3
0.070645864	0.068710963	19.3
0.075200241	0.073140602	19.3
0.043945664	0.042742048	19.3
0.127363866	0.123875531	19.3
0.091996654	0.089476982	19.3
0.119630381	0.116353857	19.3
0.126868748	0.123393974	19.3
0.052645421	0.051203529	19.3
0.090521795	0.088042518	19.3
0.070510782	0.068579581	19.3
0.108744609	0.105766232	19.3
0.139856099	0.136025618	19.3
0.186558099	0.181448509	19.3
0.145794484	0.141801358	19.3
0.151404654	0.147257872	19.3
0.05515264	0.053642079	19.3
0.059794225	0.058156537	19.3
0.054787329	0.053286773	19.3
0.162537151	0.158085465	19.3
0.149017445	0.144936045	19.3
0.099861489	0.097126409	19.3
0.004490739	0.004367744	19.3
0.054353506	0.052864833	19.3
0.074594169	0.072551129	19.3
0.10166053	0.098876177	7
0.05979631	0.058158564	7
0.143006343	0.13908958	7
0.030343103	0.029512044	7
0.099411853	0.096689088	0.4
0.081031919	0.078812557	0.4
0.150441971	0.146321556	0.4
0.321234093	0.312435898	0.4
0.271296982	0.263866501	0.4
0.130189552	0.126623825	0.4

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.068986766	0.067097306	0.4
0.076295065	0.07420544	0.4
0.069629135	0.067722081	0.4
0.071416676	0.069460664	0.4
0.123739568	0.120350498	0.4
0.111731267	0.108671089	0.4
0.110007056	0.106994102	0.4
0.411248344	0.399984773	0.4
0.133231147	0.129582115	0.4
0.122855866	0.119490999	0.4
0.10779179	0.104839509	0.4
0.069147249	0.067253394	0.4
0.132032988	0.128416772	0.1
0.12366494	0.120277914	0.1
0.054945407	0.053440522	0.1
0.036131168	0.035141581	0.1
0.078798626	0.076640432	0.1
0.016863053	0.016401195	0.1
0.118908244	0.115651498	0.1
0.23805454	0.231534528	0.1
0.057413184	0.055840709	0.1
0.105167211	0.102286815	0.1
0.144573108	0.140613434	0.1
0.036551221	0.035550129	0.1
0.063247765	0.061515489	0.1
0.071005182	0.06906044	0.1
0.028181987	0.027410118	0.1
0.032881248	0.031980672	0.1
0.052032888	0.050607773	0.1
0.019325255	0.018795961	0.1
0.111957553	0.108891177	0.1
0.058984415	0.057368907	0.1
0.062102271	0.060401368	0.1
0.029621506	0.028810211	0.1
0.047378103	0.046080477	0.1
0.052039126	0.05061384	0.1
0.047533536	0.046231652	0.1
0.212300193	0.20648556	0.1
0.058055851	0.056465775	0.1
0.083305603	0.081023968	0.1
0.065920299	0.064114826	0.1
0.055384657	0.053867741	0.1
0.029975846	0.029154846	0.1
0.029764265	0.028949059	0.1
0.043108733	0.041928039	0.1
0.030149736	0.029323973	0.1
0.040596166	0.039484288	0.1
0.019627442	0.019089871	0.5
0.045489351	0.044243456	0.5
0.082615179	0.080352454	0.5
0.096342933	0.093704222	0.5

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.03000418	0.029182404	0.5
0.062421639	0.060711989	0.5
0.044763079	0.043537075	0.5
0.053830656	0.052356303	0.5
0.03752474	0.036496984	0.5
0.070820605	0.068880918	0.5
0.067345494	0.065500986	0.5
0.045108296	0.043872837	0.5
0.139565378	0.135742859	0.5
0.252323047	0.245412238	0.5
0.337103536	0.327870697	0.5
0.190760856	0.185536157	0.5
0.100318597	0.097570998	0.5
0.038663545	0.0376046	0.5
0.0326672	0.031772487	0.5
0.043725811	0.042528217	0.5
0.05041379	0.04903302	0.5
0.032048885	0.031171106	0.5
0.046837362	0.045554546	0.5
0.103597236	0.100759838	0.5
0.021896257	0.021296546	0.5
0.019521758	0.018987082	0.5
0.040971148	0.039849	0.5
0.025518562	0.024819641	0.5
0.027028078	0.026287813	0.5
0.040603123	0.039491055	0.5
0.02657073	0.025842992	0.5
0.028397241	0.027619477	0.5
0.12803155	0.124524928	0.5
0.03850465	0.037450056	0.5
0.0221184	0.021512605	0.5
0.023765192	0.023114293	0.5
0.033550312	0.032631412	0.5
0.029806924	0.02899055	0.5
0.015874733	0.015439944	0.5
0.014407147	0.014012553	0.5
0.047004897	0.045717492	0.5
0.039050353	0.037980813	0.5
0.043084209	0.041904188	0.5
0.029007863	0.028213375	0.5
0.026201711	0.025484079	0.5
0.029777206	0.028961646	0.5
0.032181471	0.031300062	0.5
0.041002734	0.039879721	0.5
0.038495911	0.037441557	0.5
0.148258571	0.144197957	0.5
0.119952806	0.11666745	0.5
0.14231183	0.138414089	0.5
0.086539026	0.084168832	0.5
0.095803587	0.093179649	0.5
0.029599408	0.028788718	0.5

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.114568135	0.111430258	0.5
0.031756636	0.030886862	0.5
0.026200531	0.025482932	0.5
0.070972597	0.069028747	0.5
0.064353237	0.062590683	0.5
0.074915132	0.072863301	0.5
0.074551597	0.072509723	0.5
0.060952149	0.059282747	0.5
0.037757396	0.036723269	0.5
0.044614301	0.043392372	0.5
0.053204909	0.051747694	0.5
0.032157028	0.031276288	0.5
0.031164107	0.030310562	0.5
0.015835423	0.015401711	0.5
0.015885288	0.01545021	0.5
0.037932776	0.036893845	0.5
0.424714983	0.413082577	31.97277016
0.139914176	0.136082104	31.97277016
0.134194721	0.130519298	31.97277016
0.226190842	0.219995761	31.97277016
0.245530389	0.238805623	31.97277016
0.095646014	0.093026391	0.6
0.216440094	0.210512074	0.6
0.219126813	0.213125207	0.6
0.084816212	0.082493203	0.6
0.285102033	0.277293449	0.6
0.250867638	0.243996691	0.6
0.093561301	0.090998776	0.6
0.109759766	0.106753585	0.6
0.091854516	0.089338737	0.6
0.077354838	0.075236187	0.6
0.055754822	0.054227768	0.6
0.04513659	0.043900356	0.6
0.066854039	0.065022992	0.6
0.161099765	0.156687447	0.6
0.079235271	0.077065117	0.6
0.044878468	0.043649304	0.6
0.340898876	0.331562088	0.6
0.131680675	0.128074108	0.6
0.084703018	0.082383109	0.6
0.097426396	0.09475801	0.6
0.330467202	0.321416124	20.80951409
0.334550736	0.325387816	20.80951409
0.104178189	0.10132488	20.80951409
0.079183677	0.077014936	20.80951409
0.253074568	0.246143176	20.80951409
0.155235801	0.150984089	6.2
0.430794199	0.418995292	6.2
0.30143734	0.293181353	6.2
0.10583785	0.102939086	6.2
0.131983009	0.128368162	6.2

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.07776459	0.075634716	6.2
0.172556351	0.167830251	6.2
0.241421439	0.234809212	6.2
0.354662435	0.34494868	6.2
0.19875389	0.193310273	6.2
0.118180291	0.114943483	6.2
0.1653877	0.160857941	6.2
0.114077593	0.110953152	6.2
0.307881176	0.299448701	6.2
0.071815856	0.06984891	6.2
0.274199504	0.266689527	6.2
0.219626127	0.213610846	6.2
0.059306401	0.057682074	6.2
0.058641334	0.057035222	6.2
0.040732575	0.039616961	6.2
0.090279508	0.087806866	6.2
0.045099743	0.043864518	6.2
0.470450926	0.457565871	6.2
0.125350674	0.121917478	6.2
0.173639297	0.168883536	6.2
0.04554435	0.044296948	6.2
0.229842798	0.223547695	6.2
0.28708799	0.279225014	6.2
0.121349136	0.118025537	6.2
0.090236641	0.087765173	6.2
0.103972724	0.101125043	6.2
0.105919937	0.103018924	6.2
0.062965675	0.061241125	6.2
0.049554264	0.048197036	6.2
0.109085207	0.106097501	6.2
0.059272677	0.057649273	6.2
0.052072635	0.050646432	6.2
0.814911348	0.792591959	34.02415099
0.138941264	0.135135839	34.02415099
0.050534163	0.049150096	34.02415099
0.209257675	0.203526372	34.02415099
0.321878567	0.31306272	37.44161296
0.1034855	0.100651163	37.44161296
0.24246091	0.235820213	37.44161296
0.313148159	0.304571427	37.44161296
0.220166121	0.21413605	12.1
0.045147522	0.043910989	12.1
0.080803211	0.078590113	12.1
0.029022291	0.028227407	12.1
0.133018951	0.12937573	12.1
0.228300017	0.222047169	12.1
0.131785295	0.128175863	12.1
0.211531566	0.205737985	12.1
0.174125501	0.169356424	12.1
0.268940711	0.261574766	12.1
0.111923001	0.108857572	12.1

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.111559216	0.108503751	12.1
0.095663536	0.093043433	12.1
0.125400999	0.121966424	12.1
0.126705842	0.12323553	12.1
0.290731907	0.282769129	12.1
0.097201008	0.094538796	12.1
0.157294392	0.152986297	12.1
0.237926822	0.231410308	12.1
0.340543823	0.331216759	12.1
0.223442582	0.217322773	12.1
0.111884012	0.108819651	12.1
0.089084562	0.086644648	12.1
0.167357225	0.162773523	12.1
0.100843032	0.098081069	12.1
0.092541256	0.090006668	12.1
0.067786877	0.06593028	12.1
0.190484321	0.185267197	12.1
0.278145671	0.270527613	12.1
0.142949838	0.139034623	12.1
0.0412465	0.04011681	12.1
0.080099038	0.077905227	12.1
0.064485256	0.062719087	12.1
0.090439664	0.087962636	12.1
0.083432464	0.081147354	12.1
0.045636526	0.0443866	12.1
0.109449601	0.106451915	12.1
0.08245959	0.080201126	12.1
0.025508609	0.024809961	12.1
0.040265117	0.039162306	12.1
0.071290664	0.069338103	12.1
0.093808916	0.091239608	12.1
0.04354302	0.042350432	12.1
0.049314107	0.047963456	12.1
0.162692938	0.158236985	12.1
0.428704254	0.416962587	12.1
0.223143773	0.217032147	12.1
0.063482055	0.061743362	12.1
0.061911254	0.060215584	12.1
0.067110888	0.065272806	12.1
0.140965551	0.137104683	12.1
0.110781844	0.107747669	12.1
0.03002891	0.029206456	12.1
0.12392183	0.120527768	12.1
0.059179403	0.057558554	12.1
0.097081586	0.094422644	12.1
0.081034184	0.07881476	12.1
0.16896742	0.164339617	12.1
0.1656638	0.161126479	12.1
0.22513963	0.218973341	12.1
0.074278838	0.072244434	12.1
0.114912006	0.111764712	12.1

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.054285777	0.052798958	12.1
0.074954757	0.072901841	12.1
0.105897008	0.102996623	12.1
0.136313621	0.132580164	12.1
0.106168848	0.103261018	12.1
0.158259948	0.153925408	12.1
0.080276129	0.078077468	12.1
0.058007783	0.056419023	12.1
0.248884104	0.242067484	12.1
0.138058217	0.134276977	12.1
0.135631169	0.131916403	12.1
0.082715775	0.080450295	12.1
0.031195016	0.030340624	12.1
0.057179302	0.055613234	12.1
0.047220305	0.045927001	12.1
0.068587662	0.066709133	0.754888737
0.041034545	0.039910661	0.754888737
0.065026575	0.063245579	0.754888737
0.049028986	0.047686144	0.754888737
0.083562605	0.081273931	0.754888737
0.080780497	0.078568021	1.061005285
0.112930662	0.109837634	1.061005285
0.064110127	0.062354232	1.061005285
0.021926942	0.021326391	1.061005285
0.785358335	0.763848365	19.59
0.832996237	0.810181525	19.59
0.404514356	0.39343522	19.59
1.482767623	1.442156496	19.59
0.379135883	0.368751831	14.1
0.31127541	0.302749971	14.1
0.122325632	0.118975288	14.1
1.205647588	1.172626428	14.1
0.396423912	0.385566363	13.72
0.423754057	0.41214797	13.72
0.106897579	0.103969789	13.72
1.102968068	1.07275917	13.72
0.509135731	0.495191149	15.57
1.04921856	1.020481793	15.57
0.147661815	0.143617545	15.57
1.269817628	1.235038932	15.57
0.363084975	0.353140538	7
0.186600218	0.181489474	7
0.095863478	0.093237899	7
0.034566788	0.033620048	7
0.11192289	0.108857464	7
0.329809136	0.320776081	7
0.129205031	0.125666269	7
0.045346304	0.044104326	7
0.356501679	0.346737549	7
0.250510997	0.243649818	7
0.129086553	0.125551035	7

efficiency_lbP_mi	lbP/acre/route	canopy_cover_total_%
0.163294478	0.158822049	7
0.280811268	0.273120203	7
0.185483127	0.18040298	7
0.051730516	0.050313683	7
0.021679618	0.021085841	7
0.040404797	0.039298161	7
0.122043059	0.118700455	7
0.095316598	0.092705997	7
0.101103771	0.098334667	7
0.049829809	0.048465034	7
2.032279985	1.976618411	2
0.929062693	0.903616842	2
0.174912487	0.170121856	2
0.240106039	0.233529838	2
0.029039397	0.028244044	2
0.467708739	0.454898789	2
0.21415588	0.208290422	1
0.208279114	0.202574613	1
0.078325821	0.076180576	1
0.098220521	0.095530385	1
0.031169068	0.030315387	1
0.096081421	0.093449873	1

Appendix G

Estimated TP Removed by Street Sweeping Practices

Simplified Name	Centerline Miles	Curb Miles	Curb/Gutter Qualifier	Curb Miles Adjusted with Curb/Gutter Qualifier	Street Sweeping Frequency by Zone: Residential	Street Sweeping Frequency by Zone: Arterial	Street Sweeping Frequency by Zone: Commercial/Industrial	Percent by Zone: Residential	Percent by Zone: Arterial	Percent by Zone: Commercial/ Industrial	25th Percentile Rate Curb/Gutter Roads TP (lbs/year)	25th Percentile Rate All Roads TP (lbs/year)	50th Percentile Rate Curb/Gutter Roads TP (lbs/year)	50th Percentile Rate All Roads TP (lbs/year)
Addison	96	192	0.75	144	20	20	20	53%	23%	24%	209.32	279.10	366.33	488.44
Barrington	50	100	0.66	66	12	12	12	28%	67%	5%	57.56	87.22	100.74	152.64
Bartlett	140	280	1	280	4	4	4	82%	14%	4%	81.40	81.40	142.46	142.46
Bensenville	59	118	1	118	12	12	12	67%	20%	14%	102.92	102.92	180.11	180.11
Berkeley	22	44	1	44	15	15	15	53%	40%	7%	47.97	47.97	83.95	83.95
Bloomingdale	125	250	0.75	187.5	9	9	9	71%	13%	16%	122.65	163.53	214.64	286.19
Bolingbrook	305	610	1	610	10	10	10	63%	18%	18%	443.35	443.35	775.90	775.90
Brookfield	57	114	1	114	32	32	0	75%	18%	7%	246.83	246.83	431.97	431.97
Carol Stream	112	224	1	224	8	8	8	70%	11%	20%	130.24	130.24	227.94	227.94
Channahon	83	166	0.66	109.56	4	4	4	50%	40%	10%	31.85	48.26	55.74	84.46
Crest Hill	39	78	1	78	95	95	95	62%	25%	13%	538.57	538.57	942.53	942.53
Downers Grove	120	240	0.66	158.4	17	17	17	69%	15%	17%	195.72	296.54	342.52	518.96
Downers Grove Township	35	70	0.5	35	2	2	2	63%	18%	18%	5.09	10.18	8.90	17.81
Elk Grove Village	128	256	1	256	12	4	10	78%	17%	5%	196.28	196.28	343.50	343.50
Elmhurst	115	230	1	230	9	9	9	62%	20%	18%	150.45	150.45	263.30	263.30
Elwood	30	60	0.75	45	7	7	7	18%	76%	6%	22.89	30.53	40.07	53.42
Frankfort	100	200	1	200	4	4	4	56%	35%	9%	58.14	58.14	101.76	101.76
Glen Ellyn	83	166	1	166	20	20	0	77%	15%	8%	223.00	223.00	390.26	390.26
Glendale Heights	72	144	1	144	18	18	18	69%	11%	20%	188.39	188.39	329.69	329.69
Hanover Park	100	200	1	200	15	15	15	68%	20%	11%	218.04	218.04	381.59	381.59
Hoffman Estates	160	320	0.75	240	4	4	4	85%	11%	3%	69.77	93.03	122.11	162.81
Illinois DOT	2,700	5400	0.33	1782	0	2	2	0%	0%	0%	0.00	0.00	0.00	0.00
Itasca	43	86	0.75	64.5	15	15	15	39%	23%	37%	70.32	93.76	123.06	164.08
Joliet	584	1168	1	1168	5	9	5	70%	18%	12%	452.41	452.41	791.75	791.75
Lisle	45	90	0.66	59.4	9	9	9	55%	27%	18%	38.86	58.87	68.00	103.03
Lockport	103	206	1	206	13	13	13	59%	35%	6%	194.64	194.64	340.63	340.63
Lombard	145	290	1	290	5	5	5	66%	17%	16%	105.39	105.39	184.44	184.44
Manhattan	75	150	0.75	112.5	0	0	0	41%	57%	2%	0.00	0.00	0.00	0.00
Milton Township	25	50	1	50	2	0	0	79%	18%	3%	5.77	5.77	10.10	10.10
Minooka	63	126	0.75	94.5	5	5	5	43%	53%	4%	34.34	45.79	60.10	80.13
Naperville	400	800	1	800	2	2	0	75%	14%	11%	103.45	103.45	181.05	181.05
New Lenox	130	260.5	0.75	195.375	12	12	12	47%	46%	7%	170.40	227.20	298.21	397.62
North Riverside	33	66	1	66	38	38	38	86%	6%	8%	182.28	182.28	319.01	319.01
Oak Brook	55	110	0.66	72.6	6	6	12	76%	24%	0%	31.70	48.03	55.47	84.05
Oakbrook Terrace	73	146	1	146	4	4	4	20%	65%	16%	42.45	42.45	74.28	74.28
Orland Park	40	80	1	80	0	4	0	73%	20%	7%	4.55	4.55	7.97	7.97
Palatine	156	312	0.75	234	8	8	8	73%	19%	9%	136.06	181.41	238.11	317.48
Plainfield	196	392	0.75	294	4	4	0	64%	29%	7%	79.25	105.67	138.69	184.92
Romeoville	135	270	1	270	6	5	5	56%	24%	20%	109.13	109.13	190.98	190.98
Roselle	75	150	0.75	112.5	13	13	13	74%	15%	11%	106.30	141.73	186.03	248.03
Schaumburg	219	438	0.75	328.5	4	4	2	53%	23%	24%	84.24	112.33	147.43	196.58
Streamwood	96	192	1	192	6	6	6	43%	24%	33%	83.73	83.73	146.53	146.53
Warrenville	28	56	1	56	11	11	11	56%	23%	20%	44.77	44.77	78.35	78.35
West Chicago	90	180	1	180	47	0	0	49%	32%	19%	301.73	301.73	528.05	528.05
Western Springs	97	194	1	194	5	5	5	78%	19%	4%	70.50	70.50	123.38	123.38
Wheaton	167	334	0.75	250.5	12	12	12	80%	12%	8%	218.48	291.31	382.35	509.81
Winfield	16	32	1	32	1	1	1	82%	14%	4%	2.33	2.33	4.07	4.07
Wood Dale	48	96	0.75	72	12	12	12	58%	23%	19%	62.80	83.73	109.90	146.53
Woodridge	195	390	1	390	5	5	5	71%	21%	9%	141.73	141.73	248.03	248.03
Total											**6218**	**6869**	**10882**	**12021**

Amy Underwood

From: Amy Underwood
Sent: Monday, January 10, 2022 4:59 PM
To: Adam Cioni; Adrienne Kasper; Alan Hartigan; Alex Bielawa; Alyssa Caballero; Amy Underwood; Angel Lozada; Bill Smith; Bob Swirsky; Brian Meng; Carly Shaw; Chuck Preen; Daniel Jasso; Dwayne Carpenter; Ed Bailie; Frank Furtak; Jeff Barta; Jessie Gwozdz; Joe Magiera; Jose Roche, Jr.; Keith Shaffner; Kim Giardini; Larry Cox; Malwina Serpa; Marc Majewski; Marco Rendon; Matt Richert; Megan MacQuilkin; Mike Hayward; Nick Preen; Nick Whitefleet; Oscar Avila; Reese Berry; Rolf Flechsig; Sam Tatulli; Siamak Azarnia; Stephanie Cioni; Susan Testin; Todd Freer
Subject: FW: Procedural Changes due to Recent Spike in COVID Cases

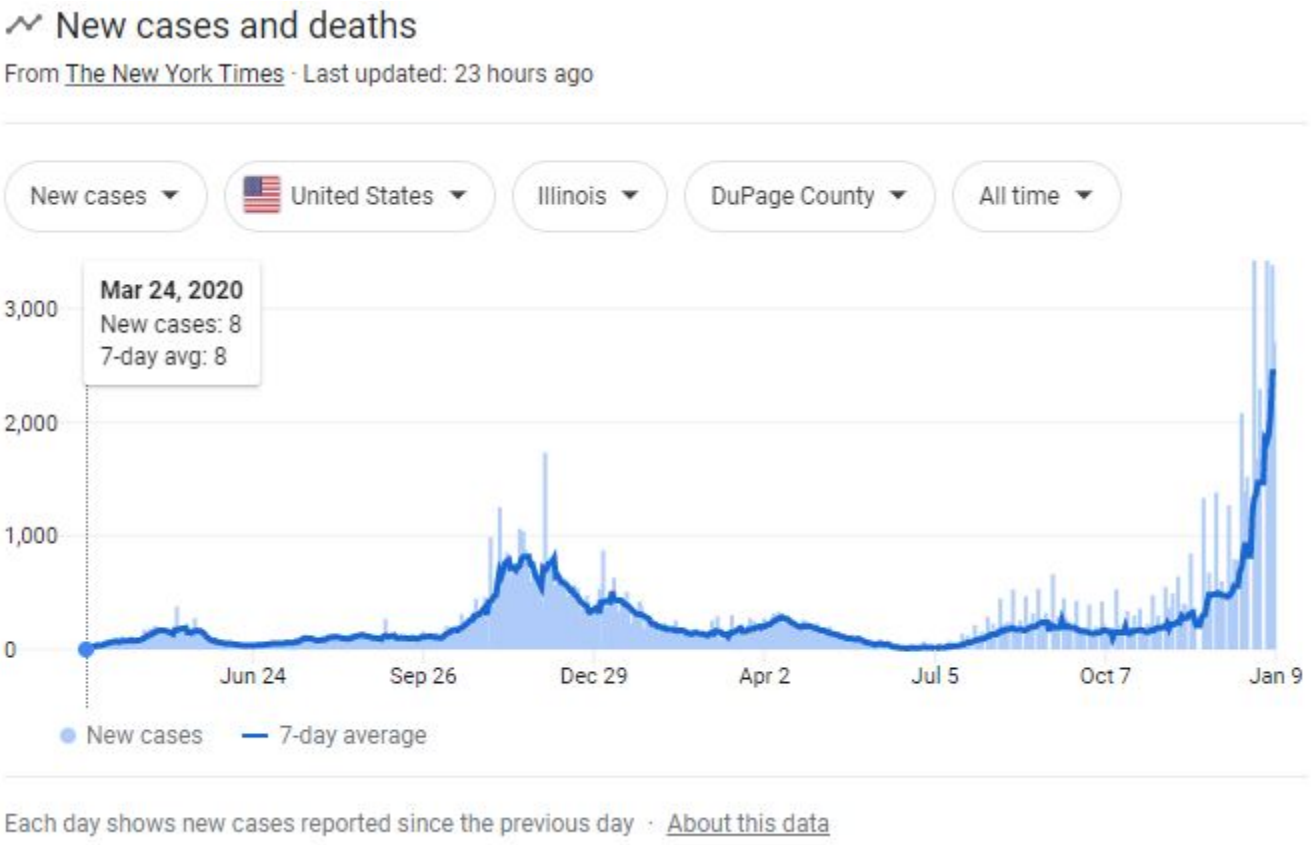
Importance: High

Everyone,

The number of new daily COVID cases has continued to spike in DuPage County over the past two weeks. Due to this, the procedural changes outlined in my December 28, 2021 e-mail message to all employees will continue to be in place until further notice.

Please contact your Supervisor or me with any questions.

Amy R. Underwood, P.E.
General Manager
Downers Grove Sanitary District



From: Amy Underwood
Sent: Tuesday, December 28, 2021 12:31 PM
To: All DGSD Employees
Subject: Procedural Changes due to Recent Spike in COVID Cases
Importance: High

To All District Employees:

DuPage County is experiencing the highest number of new COVID cases that we have seen since the beginning of this pandemic, as can be seen in the graph under my signature below. In addition, the District currently has two breakthrough cases among our employees. (Please note that our Safety Coordinator, Jessie, has already contacted any employees that were potentially exposed.) Given the recent spike in local COVID cases, District Administration is putting the following procedural changes in place at least through Friday, January 7. I will notify you if these are extended beyond that date.

1. Do not share vehicles or ride in the elevators with another employee.
2. Supervisors will be contacting employees to stagger shifts, lunchroom use, locker room use, etc. and to work remotely when possible.
3. Limit contact with other employees when possible. If you can communicate with another employee effectively through a phone call, e-mail or text rather than face to face, do so. If you must meet in person, maintain social distance when possible. Do not congregate for social time.

In addition to the items above, employees are reminded to **WEAR A MASK WHEN INDOORS**. Employees who do not wear a mask indoors are subject to disciplinary action per the Employee Policy Manual. There are no mask-free zones inside the District facilities. Masks may only be removed when you are in the shower or while

eating and drinking. Masks must be worn in the lunchroom when you are not eating or drinking and in the locker room when you are not in the shower.

The CDC issued a news release yesterday with revised guidance, but they have not updated the related guidance on their website yet. Please note that we anticipate updating the District's COVID Preparedness Plan by the end of next week to incorporate the revised guidance.

As always, thank you for your understanding, cooperation and commitment to making our facilities a safe place for all employees and to keeping our facilities in operation so we may continue to serve our customers through this time.

Please contact your supervisor or I if you have any questions.

Amy R. Underwood, P.E.
General Manager

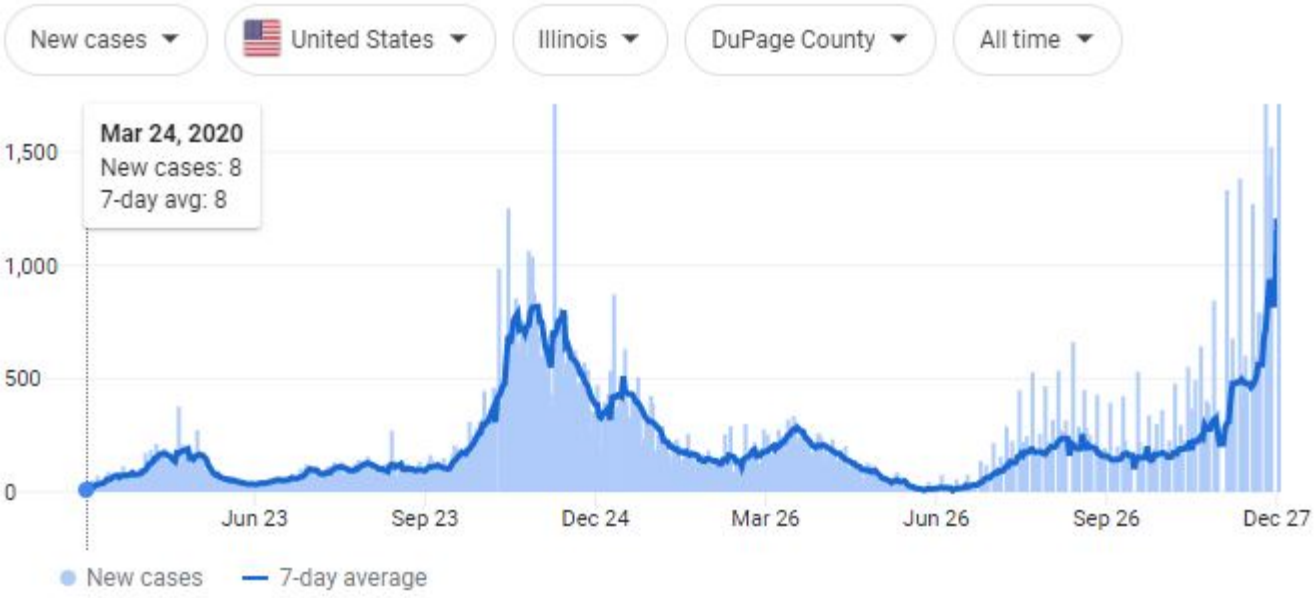
Downers Grove
Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515
(630)969-0664
www.dgsd.org

Statistics

New cases and deaths

From The New York Times · Last updated: 18 hours ago



Each day shows new cases reported since the previous day · About this data

Amy Underwood

From: Amy Underwood
Sent: Wednesday, January 5, 2022 4:24 PM
To: Patel, Jay
Cc: Linda Wong (Linda.Wong@illinois.gov)
Subject: Downers Grove SD Force Main Break Notification

Importance: High

Dear Jay,

The purpose of this message is to notify the Agency of a sewer lift station force-main break at the District's Venard Lift Station. The break is located under Venard Road in front of the property at 3713 Venard Road, Downers Grove, IL. The Sanitary District received notification of the break from a resident at 2:24 p.m. today (i.e., Tuesday, January 5th). When District staff arrived on site, wastewater estimated at 50 gpm was surfacing onto the road and running downhill into a storm sewer that discharges directly into Lacey Creek. As this lift station has two force mains, we were able to shut off the broken force main while continuing to serve our customers.

The owner of the storm sewer, the Village of Downers Grove, was notified, and the Village indicated that they would notify DuPage County Stormwater.

The District is hoping to get a repair crew scheduled for tomorrow. I will provide a full report within the required five days.

Please do not hesitate to contact me should you have any questions.

Sincerely,
Amy

Amy R. Underwood, P.E.
General Manager

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515
(630)969-0664
www.dgsd.org

Downers Grove Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

January 7, 2022

Compliance Assurance Section – MC #19
Bureau of Water
Illinois Environmental Protection Agency
Sent Electronically to: EPA.SSO.Coordinator@Illinois.gov

To Whom It Concerns:

Attached please find the Sanitary Sewer Overflow or Bypass Notification Summary Report describing an overflow that occurred as a result of the following lift station force main break:

Lift Station	Force Main Break Location	Overflow Date
Venard	3713 Venard Rd, Downers Grove	January 5, 2022

The District was notified at 2:24 p.m. on January 5, 2022 by a resident. District staff arrived on site at 2:36 p.m. confirmed the break and observed that the wastewater exiting the pipe was running into a storm sewer that discharges to Lacey Creek. The owner of the storm sewer, the Village of Downers Grove, was contacted. The Village stated that they would inform DuPage County Stormwater. Sandbags and the District's Vac Con were used to as best as possible block additional flow from entering the storm sewer and to clean up.

This lift station has dual force mains. All flow was diverted to the other force main within an hour and a half, allowing us to continue to serve our customers.

Traffic control devices were set up to prevent the public from entering the impacted area, and our technicians posted appropriate signage during the event.

The tributary area includes residential and light commercial, with no industrial discharges. No sewage-related debris surfaced.

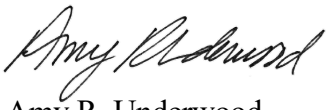
Repair of the force-main was completed by late afternoon on January 6, 2022, and the force-main was placed back in service.

Any evidence of the spillage has been cleaned up.

We continue with ongoing sewer replacement and rehabilitation efforts to reduce I/I and improve collection system (including force main) performance, as described in our CMOM.

If you have any questions, please do not hesitate to call me at the number provided herein or send an e-mail message to me at aunderwood@dgsd.org.

Sincerely,
DOWNERS GROVE SANITARY DISTRICT



Amy R. Underwood
General Manager

Encl.

C: Board of Trustees
Jay Patel, IEPA
Linda Wong, IEPA

Illinois Environmental Protection Agency

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

Sanitary Sewer Overflow or Bypass Notification Summary Report

- Within 24 hours of the occurrence, notify the Illinois EPA regional wastewater staff by telephone, FAX, email or voice mail, if staff are unavailable.
- Within 5 days of the occurrence, provide a written report describing the overflow or bypass, including all information requested on this form. The permittee is required to submit this form or other equivalent written notification to the Illinois EPA at:

Bureau of Water/Compliance Assurance Section - MC #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

NOTE: You may complete this form online, save a copy locally, print, sign and submit it to the BOW/CAS MC #19, at the above address. You may also print the form before completing it by hand, signing and submitting it.

Failure to notify the Illinois EPA as specified may result in fines up to $10,000 for each day of violation.

Instructions: Use this form to report all unscheduled sanitary sewer overflow or bypass occurrences. Attach additional information as necessary to explain or document the overflow or bypass. For the purpose of this report, an overflow or bypass is defined as the discharge of untreated sewage from the sanitary sewer collection system to a surface water and/or ground due to circumstances such as those identified by the check boxes in the overflow or bypass details section of this form.

Use one form per occurrence. A single occurrence may be more than one day if the circumstances causing the overflow or bypass results in a discharge duration of more than 24 hours. If there is a stop and restart of the overflow or bypass within 24 hours, but it is caused by the same circumstances, report it as one occurrence. If the discharges are separated by more than 24 hours, they should be reported as separate occurrences.

24 Hour Notification Information

Permittee (Municipality or Facility Name):	Permit Number:	Person Representing Permittee Who Contacted IEPA:
Downers Grove Sanitary District	IL0028380	Amy R. Underwood

Date:	Time:	AM	PM	IEPA Office Contacted:	Name of IEPA Employee Contacted:
01-05-22	4:24	☐	☒	Des Plaines	Jay Patel, Linda Wong

Sanitary Sewer Overflow or Bypass Details

Date and Duration of Overflow or Bypass Occurrence (complete a separate form for each occurrence):

Start Date:	Time:	AM	PM	Duration of the overflow or bypass (hours and minutes):
01-05-22	2:24	☐	☒	1hour and 30 minutes

Estimated Volume of Wastewater Discharged (gallons):	WWTP Flow During bypass (report in MGD): Not applicable for a collection system SSO.	Location of the Overflow or Bypass:
unknown		3713 Venard Road, Downers Grove

Circumstances Causing the Overflow or Bypass (check all that apply)

WPC 733
11/2011

☐ Rain ☐ Power Outage ☐ Equipment Failure ☐ Other (explain below)
☐ Snow Melt ☒ Broken Sewer ☐ Widespread Flooding

Provide a narrative description to further explain why the overflow or bypass occurred. For example, describe what equipment failed. What caused the power outage, or what plugged the sewer. Flooding should only be indicated, as a cause if there is significant flooding that is caused by high river, stream, or lake water levels, not just localized high water in the street.

One of the redundant force mains from the Venard Lift Station broke, causing wastewater to surface and flow to a nearby storm inlet.

Wet Weather (if applicable)

Date(s) and Duration of Rainfall:

Start Date:	Time:	AM	PM	End Date:	Time:	AM	PM	Amount of Rainfall (inches)	Amount of Snow Melt (inches)
		☐	☐			☐	☐		

Contributing Soil Conditions (saturated, frozen, soil type)

Where Did the Discharge from the Overflow or Bypass Go? (check all that apply)

Provide the name of the local receiving water that the wastewater enters, which could be a nearby stream, river, lake, or wetland. If discharge does not enter directly into surface water, but indirectly by way of a ditch or storm sewer, trace the path of the ditch or storm sewer to find the receiving water.

- ☐ Runs on ground and absorbs into the soil
- ☐ Ditch: Name of surface water it drains to:
- ☒ Storm Sewer: Name of surface water it drains to: Lacey Creek
- ☐ Surface water direct discharge:
- ☐ Basement Back-ups, (Number & use (i.e.residential, commercial) of buildings affected):
- ☐ Other, describe:

Actions to Correct This Occurrence and Prevent Future Owerflows or Bypasses

Describe what actions were taken to minimize the volume of wastewater discharged from the overflow or bypass reported on this form. Also describe what actions are planned to prevent or minimize future overflows or bypassess. Illinois law and NPDES permits prohibit overflows or bypasses, unless certain specified conditions are met. Sanitary sewer overflows and bypasses may be the subject of enforcement action.

Flow through the force main was shut off. The force main was repaired, leak tested, and placed back into service late afternoon on January 6, 2022. Replacement of a section of both force mains is currently planned for FY23-24.

Report Completed By

Contact Person: Amy R. Underwood
Street Address: 2710 Curtiss St
PO Box: 1412
City: Downers Grove State: IL
Zip Code: 60515 Phone: 630-969-0664
County: DuPage

Authorized Representative Contact Information

Contact Person: Amy R. Underwood
Title: General Manager
Street Address: 2710 Curtiss St
PO Box: 1412
City: Downers Grove State: IL
Zip Code: 60515 Phone: 630-969-0664
County: DuPage

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

Authorized Representative Name (Print)	Title
Amy R. Underwood	General Manager

Amy R. Underwood

Authorized Representative Signature

01/07/2022

Date

DUPAGE COUNTY

COMMUNITY SERVICES

LOW INCOME HOUSEHOLD WATER ASSISTANCE PROGRAM (LIHWAP)

Crisis Program for Drinking Water and Wastewater

NEED HELP WITH YOUR WATER BILL?

INCOME-ELIGIBLE CUSTOMERS (BELOW 200% OF FEDERAL POVERTY LEVEL) MAY BE ELIGIBLE FOR WATER ASSISTANCE.

CUSTOMERS MAY RECEIVE A BENEFIT OF UP TO $1,500* TOTAL FOR:

- **DISCONNECTION—AMOUNT TO RECONNECT**
- **IMMINENT DISCONNECTION—AMOUNT TO PREVENT DISCONNECTION**
- **DISCONNECTION FEES, LATE FEES—ALL REGULAR FEES**
- **ARREARS/PAST-DUE BALANCE**

Please call Intake and Referral for screening with the following documents:

- Household Social Security cards
- Proof of gross household income over the past 30 days
- Photo ID
- Proof of DuPage County residency
- Itemized water and/or wastewater bill

***Maximum benefit is one water payment and/or one wastewater/sewer payment, not exceeding $1,500 total for program duration, 2/1/2022 through 8/31/2023. Must have a minimum $250 past-due balance.**

INTAKE AND REFERRAL

Local: 630-407-6500 Toll-Free: 1-800-942-9412 TDD: 630-407-6502

csprograms@dupageco.org

Monday through Friday, 8:00AM to 4:30PM

Downers Grove Sanitary District

COVID-19 Preparedness Plan: Beyond Restore Illinois

January 13, 2022

TABLE OF CONTENTS

1 INTRODUCTION

The global COVID-19 pandemic that began in March 2020 has impacted our communities in an unprecedented an unexpected way. This impact has led to the implementation of additional guidelines and restrictions intended to protect public health.

The Downers Grove Sanitary District (DGSD) is committed to providing a safe and healthy workplace for our employees and customers. To ensure that, we have developed the following COVID-19 Preparedness Plan in response to the COVID-19 pandemic. Our goals are to mitigate the potential for transmission of COVID-19 in our workplaces and communities, and to keep our employees healthy to perform essential operations. This requires full cooperation among our workers, management, and customers. Only through this cooperative effort can we establish and maintain the safety and health of our workplace.

DGSD is classified as an essential business during the COVID-19 pandemic. Our employees are our most valuable asset and we are committed to their health and safety. Our COVID-19 Preparedness Plan follows guidelines established by the Centers for Disease Control and Prevention (CDC), the Occupational Safety and Health Administration (OSHA), and Illinois Department of Public Health (IDPH) guidelines. DGSD employees are expected to take steps to protect themselves from COVID-19 both at work and at home by following the recommendations of the public health authorities mentioned above.

Earlier versions of this Plan were written in alignment with Governor J.B. Pritzker's Restore Illinois 5-Phase Plan. The state moved into Phase 5 in June of 2021 but the pandemic resurged just a few months later. Since the state appears to no longer be using the Phases and Tiers detailed in the Restore Illinois Plan, DGSD's Plan has been revisited in 2022 with the following title: COVID-19 Preparedness Plan - Beyond Restore Illinois.

District management will closely monitor recommendations from the County, the State, and public health authorities and will inform employees when this plan is no longer in effect. The General Manager may at her discretion issue an amendment to this plan as necessary.

2 DEFINITIONS

2.1 Vaccinated

For persons 18 and older, a primary series consists of:

- A 2-dose series of an mRNA COVID-19 vaccine (Pfizer-BioNTech or Moderna), or
- A single-dose COVID-19 vaccine (Johnson & Johnson's Janssen vaccine)
- Immunocompromised people only: a 3rd primary dose of mRNA vaccine is recommended 28 days after dose 2.

Vaccine will be considered effective starting 14 days after last dose of the primary series.

Note: Per the CDC effective 12/28/21, in most situations, Pfizer-BioNTech or Moderna COVID-19 vaccines are preferred over the J&J/Janssen COVID-19 vaccine for primary and booster vaccination due to the risk of serious adverse events. The J&J vaccine may be considered for individuals who:

- Had a severe reaction after an mRNA vaccine dose or who have a severe allergy to an ingredient of Pfizer-BioNTech or Moderna (mRNA COVID-19 vaccines).
- Would otherwise remain unvaccinated for COVID-19 due to limited access to Pfizer-BioNTech or Moderna (mRNA COVID-19 vaccines).

- Wants to get the J&J/Janssen COVID-19 vaccine despite the safety concerns.

Employees should contact their medical provider for further information about the J&J vaccine.

2.2 Boosted

It is recommended that adults 18 and older do the following to keep their vaccination status up to date with a booster dose:

- If primary series was Pfizer-BioNTech, an mRNA booster dose is recommended 5 months after completing the primary vaccination series.
- If primary series was Moderna, an mRNA booster dose is recommended 5 months after completing the primary vaccination series.
- If primary dose was J&J, an mRNA booster dose is recommended 2 months after completing the primary vaccine.

Booster will be considered effective starting 14 days after the shot was received.

2.3 Up to Date on COVID-19 Vaccines

The CDC classifies adults over age 18 as Up to Date on their vaccines if the following applies. The person has:

- Completed the primary series of the Pfizer or Moderna vaccine within the past 5 months, OR
- Received the single-dose J&J vaccine within the past 2 months, OR
- Received a booster dose.

2.4 Close Contact

Close contact is defined as any of the following:

- Being within 6 feet of an infected person for a cumulative total of 15 minutes or more over a 24-period (for example, three individual 5-minute exposures), starting from 48 hours prior to the onset of symptoms or positive test result in the infected person.
- Caring at home for a person infected with COVID-19
- Having direct physical contact with an infected person (e.g., hugged or kissed them)
- Being in direct contact with oral or respiratory secretions of an infected person (e.g., being coughed on, sneezed on, sharing eating or drinking utensils).

2.5 Quarantine

Quarantine separates and restricts the movement of people who were exposed to a contagious disease to see if they become sick. Quarantine is used to keep people who have been in close contact with someone who has COVID-19 away from others.

2.6 Isolation

Isolation separates sick people with a contagious disease from people who are not sick. People who have tested positive with COVID-19 or who have symptoms of COVID-19 need to isolate from others.

2.7 Day Zero

Day 0 (Zero) is defined as the start date of isolation or quarantine. It is the day an employee is exposed via close contact, the day an employee begins exhibiting symptoms or the day an

employee who is asymptomatic tests positive. For example, if an employee became symptomatic on January 1 and needed to isolate for 5 days and could return to work on Day 6:

Day 0: January 1
Day 1: January 2
Day 5: January 6
Day 6: January 7

2.8 Vehicles

The term “vehicles” includes cars, trucks, commercial motor vehicles, tractors, skid steers, loaders, golf carts, and forklifts.

3 SYMPTOMS, EXPOSURE, AND RETURN TO WORK REQUIREMENTS

3.1 COVID-19 Symptom List

The CDC has maintained an up-to-date list of symptoms of COVID-19. At the time of this document, the symptoms are:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New Loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

3.2 Employee Self-Monitoring

DGSD management is asking all employees to self-monitor for the above symptoms. This includes the on-call employees that are at home during non-working hours so that the supervisor can replace the employee on-call immediately. Each employee needs to check his/her temperature prior to leaving home for work every day. Employees who are experiencing any of the above symptoms need to follow all procedures of Section 3.3. By reporting to work, DGSD staff are certifying that they are symptom free.

3.3 Employees Who Have Symptoms

Employees who are experiencing any of the above symptoms must notify their supervisor and must not report to work. If the symptoms begin at work, the employee must go home immediately.

If an employee's symptoms are not new but rather symptoms of a pre-existing health condition for which the employee has a history of medical care, the employee may provide a one-time note from his/her medical provider releasing the employee to work and may come to work as long as he/she does not develop new symptoms.

The District's Safety Coordinator will contact the employee via phone for documenting their symptoms.

If an employee is awaiting COVID-19 test results or cannot obtain a test due to high demand, they should assume they have COVID and isolate.

Unless otherwise directed by a medical provider, employees must follow the steps below.

If You Have Symptoms of COVID-19 (ISOLATE)
All Employees, regardless of vaccination status • Get tested with a PCR test as soon as possible. Return to Work Criteria with a negative test result: • If your symptoms have resolved and you have been fever-free for 24-hours without the use of fever reducing medication, you may return to work. • If your symptoms worsen, get tested again or seek guidance from a medical provider. Return to Work Criteria with a positive test result: • Follow procedures of Section 3.4. Return to Work without a test: • Employees who cannot obtain a PCR test will be presumed positive and will follow the procedures in Section 3.4.

3.4 Employees who Have Tested Positive for COVID-19

Employees who have tested positive for COVID-19 must not report to work.

The District's Safety Coordinator will contact the employee via phone for documenting their symptoms.

Unless otherwise directed by a medical provider, employees must follow the steps below.

If You Test Positive for COVID-19 (ISOLATE)

All Employees, regardless of vaccination status
• Stay home for a minimum of 5 days.
• If symptomatic, Day 0 is the first day of symptoms. If asymptomatic, Day 0 is date of positive test.
• Take a PCR test on Day 5.
 	
Return to Work Criteria:
• With a negative Day 5 test result:
  o If your symptoms have resolved and you have been fever-free for 24-hours without the use of fever reducing medication, you may return to work on Day 6.
  o Wear an upgraded mask (N95, KN95, KF94) at work until end of Day 10.
  o Do not unmask around other employees to eat or drink until Day 11. Work with your supervisor to stagger your lunch shift or to identify an alternate private eating location.
  o Resume normal masking protocols on Day 11.
• With a positive Day 5 result or if you could not obtain a PCR test:
  o Continue to isolate at home through Day 10.
  o If your symptoms have not resolved, contact your medical provider for guidance before returning to work.
• A supervisor or the General Manager may at his/her discretion ask the employee to work remotely through Day 10.

3.5 Employees who Have Been Exposed to COVID-19 Positive Individuals

Employees who have been in close contact as defined in Section 2 with someone who tested positive for COVID-19 must notify their Supervisor or the Safety Coordinator immediately. Employees who have been in close contact with a COVID positive individual within the past 10 days may need to quarantine per the table below.

If You Were Exposed to COVID-19 (QUARANTINE)
Employees who are Up to Date on COVID-19 vaccines as described in Section 2.3 or have tested positive for COVID-19 in the past 90 days, confirmed via a viral test: • No quarantine is required. • Day 0 is the most recent date of exposure. • If symptoms develop, follow procedures of Section 3.3. Day 0 would reset to the day symptoms appear. • Take a PCR test on Day 5. • Wear an upgraded mask (N95, KN95, KN94) at work until negative PCR test results are received. • If PCR test is positive follow isolation procedures in Section 3.4. Day 0 would reset and would be the day of the positive test.

Employees who are not Up to Date on COVID-19 vaccines as described in Section 2.3, or have not tested positive for COVID-19 in the past 90 days, or are unvaccinated:
• Quarantine is required. Stay home for 5 days.
• Day 0 is the most recent date of exposure.
• If you develop symptoms, follow procedures of Section 3.3. Day 0 would reset to the day symptoms appear.
• Take a PCR test on Day 5.
  o If negative, you may return to work on Day 6, and wear an upgraded mask (N95, KN95, KN94) at work until end of Day 10.
  o If positive follow isolation procedures in Section 3,4. Day 0 is the day of the positive test.
• A supervisor or the General Manager may at his/her discretion ask the employee to work remotely through Day 10.

3.6 Emergency COVID-19 Absence Policy

Employees should not allow fear of inadequate sick leave to prevent them from following these guidelines. In response to the COVID-19 pandemic, DGSD instituted the Emergency COVID-19 Absence Policy, which is provided as Attachment A.

3.7 Use of Vaccine Information

Employees are not required to disclose their vaccination status. Any employee who has chosen to provide the District with a copy of their COVID-19 vaccination card should be aware the District may use their vaccination status for the following purposes:

1. Contact tracing
2. Administration of relaxed mask use procedures

3. Administration of other procedures in the COVID-19 Preparedness Plan related to vaccination status, which includes booster status
4. Potential incentives offered to employees for receiving a primary series of the COVID vaccine
5. To approve use of COVID-19 Sick Leave when an employee gets the vaccine or a booster or misses work due to side effects.

To accomplish Items 2 and 3 above, supervisors will be provided the vaccination status of each of the employees in his/her department.

Additional District staff, such as the General Manager, Administrative Supervisor, Accounting Assistant (for payroll purposes) and Safety Coordinator may also be informed of an employee's vaccination status as needed to facilitate any of the above purposes.

4 WORK PROCEDURES

4.1 Social Distancing

4.1.1 General Social Distancing Guidelines

Employees are expected to maintain 6-foot social distancing when possible and should not shake hands with each other or with visitors. Employees should always check wall-mounted and ceiling-mounted bubble mirrors (when available) to avoid collisions with another staff member.

4.1.2 Meetings

Employees should follow general social distancing guidelines for all in-person meetings. Employees and meeting guests must also follow all applicable mask restrictions.

Employees may attend professional meetings, seminars, or training events upon the approval of their Supervisor after confirming appropriate safety measures are being administered at the location of the meeting. The decision of whether to approve attendance at these will also take the number of local cases or transmission rate into consideration.

4.1.3 Locker Rooms & Restrooms

The men's locker room in the WWTC MSB will have doors marked as "in" and "out" to keep foot traffic moving in one direction. Employees should keep maximum occupancy of the men's locker room to four (4) people at a time, as long as the occupants can maintain a 6-foot distance from each other. This maximum occupancy includes people using the shower and toilet.

The ladies locker room in the MSB should keep capacity at one person at a time. Likewise, the ladies restroom in the Administration Center should be used by one person at a time. This can be accomplished by treating these two rooms as single occupancy spaces and locking the door while inside.

4.1.4 Lunchrooms (as eating spaces)

Since mask must be removed to eat, lunchroom capacities will be enforced. Employees should separate at least 6 feet from each other to unmask and eat.

- MSB Lunchroom: 5 people; 4 people seated at the tables, and one person temporarily using the sink/microwave/coffee pot or getting supplies out of the back room. Designated locations will be marked at each table and all other chairs will be removed in order to provide social distancing while eating.
- Net-Zero Energy Building: 2 people; one person per table.

- System Garage: 2 people at the table, seated at opposite ends.
- Admin Board Room: 4 people
- Admin Basement Lunchroom: 3 people; 2 people seated at opposite ends of the table, and one person temporarily using the kitchen. The basement lunchroom table should only be used for eating at if the Board Room is full to allow the fridge and microwave to remain accessible to all employees.
- Ops Center Breakroom: 2 people

If an employee needs to isolate to meet the requirements of Section 3, Supervisors may designate one of the above lunchrooms temporarily for that purpose. Supervisors will be responsible for notifying employees if this is case.

The District has created outdoor covered eating areas to expand lunch time or meeting locations during nicer weather.

Employees using eating areas must make every reasonable effort to achieve 6-feet of physical distance between themselves and others. Lunch times should be staggered to allow proper distancing to occur.

4.2 District Vehicles

Whenever possible if sufficient vehicles are available, employees who use DGSD vehicles during the pandemic should use them alone, without a passenger. It will be the supervisor's discretion to allow two employees to ride in the same vehicle. If this were the case, both employees must wear an upgraded mask (N95, KN95, KN94).

Each DGSD vehicle has been supplied a bottle of alcohol-based hand sanitizer and a bottle of alcohol-based sanitizing spray, each labeled with vehicle number. These bottles should not be thrown away when empty but should instead be refilled from the larger containers of hand sanitizer and alcohol located in the MSB lunchroom and in the Administration Center board room.

Employees using a District vehicle that has been used by another employee need to use the alcohol spray to sanitize the vehicle before and after use. This cleaning may be focused on the area's which the employee will touch or breathe on, such as door handles, the steering wheel, driver's seat, and dashboard.

4.3 Inspections of Contractor Work and BSSRAP-OHSP Inspections

A questionnaire is included in the attachments for staff to use with each of these interactions ensuring that District staff can avoid having contact with anyone who has tested positive for COVID-19. These forms should be stored in a file in the Administration Center.

In interactions with contractors where at least 6 feet of distance cannot be maintained, District staff should request that a contractor's employees must wear a mask as well. Upon the actual site inspection visit, DGSD inspectors/Technicians should ask that the areas be cleared of non-essential contractor personnel or occupants (except for the necessary contact person) during the inspection.

Technicians/inspectors entering a resident's home to perform a BSSRAP/OHSP inspection must wear an N95 mask and the usual PPE required for this type of work. Before entering the home, technicians should: 1) Confirm that nobody inside the home has COVID-19 or is experiencing Covid-19 symptoms, and 2) Ask residents inside the home to wear a mask. At the

inspector's/technician's discretion, the inspection will proceed only if the inspector/technician is comfortable in performing the inspection based upon site conditions and persons present.

For bid construction work requiring inspections of the Contractor's work, the Contract Documents will include the following or similar language:

> "Contractor shall follow all state and local protocols for the prevention of the spread of COVID at the time the work is being performed. The Contractor shall take the measures provided herein to make a safe environment every time the Contractor or a Subcontractor needs to interact in-person with the Owner's Representative, any other Owner personnel or the Owner's engineering subconsultant throughout the course of the Construction work. The Contractor's designated safety officer or representative shall fill out the Owner's online visitor form weekly collectively representing all Contractor employees, Subcontractor employees or anyone else associated with the Contractor's work that will be on site that week. The form may be accessed through this link: https://www.dgsd.org/visitor-safety-form/. Should any question be answered in the affirmative, the Owner's Representative will follow up with the Contractor's safety officer to determine what, if any, measures are required to isolate that individual or individuals from the Owner's personnel/representatives. Prior to inspection of the work, Contractor shall clear the area to be inspected of all non-essential persons. Any Contractor employee or Subcontractor employee that is essential to the inspection shall wear a mask and maintain at least 6 feet between his/her person and the Owner's Representative. The inspection will only proceed if the Owner's Representative is comfortable in performing the inspection based upon site conditions and persons present."

Anyone attending the Pre-Construction or progress meetings, if held in-person, will be required to submit fill out the online visitor form referenced 12 – 24 hours prior to attending the meeting. The form may be accessed through this link: https://www.dgsd.org/visitor-safety-form/.

4.4 Customers at the Administration Center

Pandemic office hours will be communicated to employees by the General Manager and to the public via door signage and the District's website.

Only two customers will be allowed at the counter at a time. Other customers must wait in designated areas until it is their turn. The exception to this would be members of the same family (e.g., husband and wife coming in together to sign documents). All customers over the age of 2 entering the Administration Center will be required to wear a mask and to remain on the opposite side of the front counter's plexiglass partition from DGSD staff.

During the pandemic, customers will not be allowed to utilize the employee restrooms in the Administration Center.

4.5 Visitors/Contractors

Due to the nature of our business, it is possible that certain non-employees must still enter the DGSD Wastewater Treatment Center (WWTC), Administration Center, and Lift Stations during the pandemic. All vendors, contractors and visitors entering our facilities must fill out the DGSD online visitor form, which is located on the DGSD website (click link here), and their visit will be approved based on their responses. Submission of the form sends an automatic email notification to the DGSD host. If a non-hosting employee sees a visitor and is concerned, he/she may verify this form has been properly completed by a visitor by asking their supervisor.

Employees who are hosting a non-DGSD person at a DGSD facility need to forward the above link to the online visitor form to the party and ensure that the party has filled out the online form prior to allowing them to enter DGSD facilities. The online visitor form will reference the visitor memo which indicates guidelines visitors must follow when entering DGSD facilities. The visitor memo can be accessed via this link:
https://www.dgsd.org/wp-content/uploads/COVIDVisitorMemo.pdf

All visitors are required to follow the same facemask and social distancing guidelines as employees.

WWTC restrooms shall be closed to non-employees. Alternate restroom facilities (i.e., a port-a-potty) have been set up outside building K for non-employees.

Contractors or other non-employees will not be allowed to use the DGSD lunchrooms or other designated eating spaces for eating or drinking or while employees are present eating or drinking. The MSB lunchroom may be entered by contractors or other non-employees who are refilling supplies, who need access to complete contract work or who are invited to a meeting during non-lunch times.

Employees are authorized on behalf of the District to enforce these guidelines with our visitors. Employees that observe visitors not following these guidelines should ask them immediately to comply or leave.

4.6 Plant Tours

At the discretion of the General Manager, plant tours may occur under the following conditions:

- The DGSD tour guide must be up to date on COVID-19 vaccines and boosters.
- The DGSD tour guide must wear a mask.
- Maximum group size is 8 visitors plus one DGSD tour guide.
- All tour participants need to wear masks and practice social distancing throughout the tour.
- The tour will be outdoors only. No visitors will be permitted inside the buildings.
- Videos which are normally watched in the Net Zero Education Center can be provided to the group in advance.
- Tour participants may not use the District restrooms or sinks. The District will provide hand sanitizer at the end of the tour for school age tours.
- The online visitor form will need to be completed by each participant 12 – 24 hours prior to attending. If a tour participant is a minor, the form will need to be completed by a parent/guardian.

4.7 Alternate Work Procedures

The District will continuously monitor case rates and recommendations from public health authorities to make decisions about alternate work procedures in addition to those identified above which may become necessary. below in this section, alternate work plans may include measures such as the following:

- Working from home,
- Being on standby,
- Working reduced hours,

- Reducing the hours that the Administration Center is open to the public,
- Reducing interactions with the public during inspections,
- Reducing capacity in lunchrooms and locker rooms,
- Limiting capacity in District meetings
- Holding meetings virtually instead of in-person,
- Reducing foot traffic between the WWTC and Admin Center,
- Staggering shifts
- Contactless paperwork dispersal between the office and WWTC/Sewer System employees
- Postponing/cancelling tours of the WWTC.

These measures will be communicated to employees in the GM report, via email, or directly from their supervisor.

4.8 Isolation Protocol

Effects of the COVID-19 pandemic may result in District staffing levels being too low to maintain normal operations and render us unable to provide our essential service to the community. In this case, employees who are quarantining may be asked to continue working under an isolation protocol. This protocol will allow an employee to perform essential job duties while isolated from other employees. Details of the isolation protocol will be communicated by the management team if such an emergency arises but may include workday modifications such as:

- Reduced on-site hours (i.e., do what is needed on site, then work remotely or be on standby at home for the rest of the day);
- Clearly communicated instructions for the isolated employee to avoid physical interaction with other employees;
- Clearly communicated instructions for other employees to avoid physical interaction with the isolated employee;
- An alternate method for the employee to record their working hours so that they don't need to access the shared timeclock;
- An alternate area for the employee to store their belongings and change clothes so that they don't enter the shared locker room. This area will be marked such that other employees know not to enter the space;
- The isolated employee may be required to wear personal protective equipment, including but not limited to, face masks, face shields, gloves, etc. while performing work in isolation;
- The isolated employee may be directed to clean and disinfect workspaces and equipment that were used in the course of performing work in isolation;
- Minimize their use of District vehicles and equipment (includes golf carts, tricycles, forklift, etc.). In the event a vehicle or piece of equipment is deemed essential, a dedicated vehicle or piece of equipment will be assigned for use only by that specific employee. This vehicle or piece of equipment will be marked from the outside such that other employees know not to use it;
- An independent restroom area that is not part of any common areas where multiple employees would enter the restroom. This restroom will be marked such that other employees know not to enter the space;

- An alternate space for the employee to take a lunch break, separated from other employees; and
- Contactless interaction when working with vendors, members of the public or other District staff.

5 HAND WASHING & HYGEINE

In areas where clean running water is not available, such as in DGSD vehicles, hand sanitizer containing at least 60% alcohol has been provided. Employees should refill vehicle hand sanitizer bottles from the large containers in the MSB lunchroom or in the Admin Center board room.

Employees and visitors should not refill water bottles, mugs, glasses, etc. when getting water from the water coolers unless they have been cleaned first. Disposable cups are provided at the water coolers which may be used for either hot or cold drinks.

6 PPE (PERSONAL PROTECTIVE EQUIPMENT)

DGSD employees should continue to use the PPE that is normally required for their job due to potential exposure to wastewater and associated hazards. Additional PPE has been provided for the duration of the pandemic.

6.1 Face Masks

6.1.1 Types of Face Masks

Employees may wear washable fabric masks, disposable masks, or upgraded masks such as N95, KN95, or KF 94. Fabric masks and disposable masks must have at least two layers. This includes gaiters. Masks with exhalation (one-way) valves are not allowed.

6.1.2 Face Mask Care & Replacement

- Washable masks should not be worn more than a day before being laundered.
- Disposable masks should be thrown away after being worn for an eight-hour workday or sooner if they become dirty or saturated.

6.1.3 When to Wear Face Masks

- When local transmission is substantial or high or when local mandates specify, all DGSD staff, regardless of vaccination status, must wear a mask any time they are inside of a DGSD building and any time they are outside and cannot maintain a 6-foot social distance from other people. District Administration will keep staff informed of the local transmission level. As the CDC is updating this daily, staff should always be prepared to wear a mask. When determining the local transmission, the District will consider not only DuPage County but any surrounding county in which employees reside. The current level of community transmission is found at this link: https://covid.cdc.gov/covid-data-tracker/#county-view.
    - When in virtual meetings only, masks may be removed if an employee is in an office or room with that has an air purifier, the doors are closed, and no other persons are present.
- When local transmission is low or moderate and when local mandates allow, DGSD staff who are up to date on their COVID-19 vaccines may choose to unmask as they feel

comfortable. Should an employee wish to not wear his or her mask, proof of vaccination status must be provided to District Administration.
- Tour guides must wear masks regardless of vaccination status.
- Masks may be removed in the showers, to eat in the lunchrooms, and momentarily while alone and separated from others in order to take a drink.

6.1.4 When Upgraded Face Masks are required (N94, KN95, KF94)

- Inspectors and systems staff should wear upgraded masks if they must enter a resident's home.
- Employees returning from isolation or quarantine must wear an upgraded mask as detailed in Section 3.
- Employees who must work closely (less than 6 feet apart for more than 15 minutes) together on a task should wear an upgraded mask for the duration of that task.
- Employees must wear an upgraded when in a vehicle with another person regardless of their vaccination status and regardless of local transmission levels.

6.2 Other PPE

Employees entering residents' homes may wear Tyvek coveralls (or similar), gloves or protective eyewear, if it makes them more comfortable.

7 CLEANING & DISINFECTING

7.1 Routine Cleaning and Disinfection

Cleaning with products containing soap or detergent reduces germs on surfaces by removing contaminants and decreases risk of infection from surfaces. Disinfecting using U.S. Environmental Protection Agency (EPA)'s List N disinfectants kills any remaining germs on surfaces, which further reduces any risk of spreading infection. Per the CDC, if no one with confirmed or suspected COVID-19 has been in a space, cleaning high-touch surfaces once a day is enough to remove virus that may be on surfaces.

DGSD's contracted cleaning crew will be cleaning the Administration Center three (3) times a week; MSB lunchroom, restrooms, offices, and hallways two (2) times a week; and Laboratory floors and restrooms two (2) times a week. DGSD Building and Grounds crew will be providing additional disinfection of counters, doorknobs, handles, and faucets each morning before the first shift begins. Building & Grounds will also disinfect the drop box at the Administration Center.

DGSD employees utilizing designated eating spaces (lunchrooms, board room, Net Zero education center, Systems Garage, Ops Break Room) should clean and disinfect their eating area before and after eating. Sanitizing wipes or sanitizing spray with paper towels will be provided in eating areas for this purpose.

The front counter and front door handles/knobs at the Administration Center will be cleaned by a staff member of Building and Grounds prior to 10am opening (as part of early morning routine disinfection). Administration Center staff shall disinfect the front counter between customers, when practical.

In addition to these cleaning and disinfection protocols, employees are expected to follow other sections of this document that relate to cleaning and disinfection of District facilities and vehicles.

7.2 Cleaning and Disinfecting When Someone has COVID-19

If a person who tested positive for COVID-19 has been in a District building or vehicle within the past 24 hours, the affected workspace will be cleaned and disinfected.

Before cleaning and disinfecting:

- Close off that area as soon as possible to keep other employees away.
- Wait as long as possible, at least several hours, before cleaning and disinfecting.

While cleaning and disinfecting:

- Open doors and windows and use fans or HVAC (heating, ventilation, and air conditioning) settings to increase air circulation in the area.
- Use products from EPA List N according to the instructions on the product label.
- Wear a mask and gloves while cleaning and disinfecting.
- Focus on the immediate areas occupied by the person who is sick or diagnosed with COVID-19 unless they have already been cleaned and disinfected.
- Vacuum the space if needed. Use a vacuum equipped with high-efficiency particulate air (HEPA) filter and bags, if available.
- While vacuuming, temporarily turn off in-room, window-mounted, or on-wall recirculation HVAC systems to avoid contamination of HVAC units.
- Do NOT deactivate central HVAC systems. These systems provide better filtration capabilities and introduce outdoor air into the areas they serve.
- It is safe to wash dirty laundry from a person who is sick with COVID-19 with other people's items.

Timeframe Considerations, per the CDC:

- If less than 24 hours have passed since the person who is sick or diagnosed with COVID-19 has been in the space, clean and disinfect the space.
- If more than 24 hours have passed since the person who is sick or diagnosed with COVID-19 has been in the space, cleaning is enough.
- If more than 3 days have passed since the person who is sick or diagnosed with COVID-19 has been in the space, no additional cleaning (beyond regular cleaning practices) is needed.

8 TRAVEL, EVENTS, AND GATHERINGS

8.1 Travel

The CDC recommend that individuals delay travel until they are up to date with their COVID-19 vaccines. Unvaccinated employees and employees who are not up to date with COVID-19 vaccines/booster will complete a pre-travel checklist with their Supervisor or the Safety Coordinator and may be asked to quarantine after travel.

Employees are encouraged to check the CDC's travel advisory page, the US Department of State travel advisory page, and the City of Chicago's Emergency Travel Order/Advisory Page for recommendations and potential bans related to travel during the COVID-19 pandemic. Travel advisories can change frequently. The District will attempt to provide periodic updates to employees with timely information, but ultimately it is the employee's responsibility to remain apprised of any changes.

8.2 High-Risk Events & Gatherings

A "gathering" refers to a planned or spontaneous event, indoors or outdoors, with a small number of people participating or a large number of people in attendance such as a community event or gathering, concert, festival, conference, parade, wedding, or sporting event. The following factors should be considered prior to attending a gathering to determine if the transmission risk for COVID-19 is high:

- The more people an individual interacts with at a gathering and the longer that interaction lasts, the higher the potential risk of becoming infected with COVID-19 and COVID-19 spreading.
- The higher the level of community transmission in the area that the gathering is being held, the higher the risk of COVID-19 spreading during a gathering; and
- The size of an event or gathering should be determined based on state, local, territorial, or tribal safety laws and regulations.

If an unvaccinated employee or an employee who is are not up to date with COVID-19 vaccines/booster attends a gathering where it is difficult for individuals to remain spaced at least 6 feet apart during the gathering or attendees travel from outside the local area, the employee must notify their supervisor prior to reporting for duty in-person in order for the District to determine whether a quarantine is appropriate after attending the gathering. The employee's supervisor shall work with the District's Safety Coordinator to determine the appropriate quarantine measures that need to be taken in order to protect other employees, vendors, and the public.

8.3 Quarantine After Travel or Attendance at a High-Risk Gathering

In the event an employee who is unvaccinated or is not up to date on COVID-19 vaccines wishes to pursue out-of-state travel or attend a high-risk gathering, they must follow the following process:

Quarantine Determination Steps:

(1) Is the employee up to date on COVID-19 vaccines have they been diagnosed with COVID-19 within 90 days of their intended travel return date?
    a. If Yes, the employee does not need to quarantine upon returning from travel so long as they are not exhibiting COVID-19 symptoms.
    b. If No, proceed to Step 2.
(2) Will the employee be using public transportation at any point during the travel (including, but not limited to, buses, trains, commercial airlines, boats, etc.)?
    a. If Yes, the employee will complete the quarantine period and follow other related procedures as defined below before returning to work.
    b. If No, proceed to Step 3.

(3) Has the employee already determined they will be quarantining after returning from travel?
    a. If Yes, the employee will complete the quarantine period and follow other related procedures as defined at the end of this Section before returning to work.
    b. If No, proceed to Step 4.
(4) The employee should consult their supervisor or the Safety Coordinator to complete the District's Pre-Travel & Pre-Gathering Checklist prior to travelling in order to determine whether a quarantine is appropriate.

This Pre-Travel & Pre-Gathering Checklist may contain, but is not limited to, the following:

- For travel:
    - Intended destination(s);
    - If the employee's traveling companions live in the same household as the employee;
    - Infection rates in the destination at the intended time of travel; and
    - Whether the employee is planning to attend any events or gatherings throughout the travel period.
- For Gatherings:
    - The size of gathering;
    - Local infection rates in the area

As part of this determination, their supervisor shall work with the District's Safety Coordinator to determine the appropriate quarantine measures that need to be taken as specified below in order to protect other employees, vendors, and the public.

If during the employee's travel, any of the items covered by the Pre-Travel Checklist changes (e.g., the employee decides to take a tour using public transportation at their destination), upon the employee's return from travel and prior to reporting for duty in-person, the employee must notify their supervisor of the change and assess if there should be a change to the pre-travel quarantine determination.

If quarantine is required after travel or attending a high-risk gathering, the CDC recommends the following:

- Stay home and self-quarantine for a full 5 days. For travel, the day the employee returns home from travel is Day 0. For gatherings, Day 0 is the day of the gathering.
- Take a PCR test 3-5 days after returning from travel.
    - If negative, you may return to work on Day 6, and wear an upgraded mask (N95, KN95, KN94) at work until end of Day 10.
    - If positive follow isolation procedures in Section 3.4. Day 0 resets to the day of the positive test.

In the event the employee cannot work remotely during the quarantine period, the employee may utilize vacation leave, personal leave, or take unpaid leave during normally scheduled workdays. Employees should contact their supervisors to explore whether remote work is available.

9 REVISIONS TO THE PLAN

The COVID-19 situation is one that is fluid and constantly evolving. The District will continue to evaluate the effectiveness of its efforts to minimize the spread of COVID-19 amongst its employees, visitors to our facilities, and the public we serve. From time to time, the District will revise this Plan as needed in order to continue to best protect our organization and continue to provide essential public service. At any time, the General Manager may at her discretion issue an amendment to this plan as necessary.

ATTACHMENT A – EMERGENCY COVID-19 ABSENCE POLICY

(3-page PDF follows)

DOWNERS GROVE SANITARY DISTRICT
TEMPORARY EMPLOYEE POLICY
EMERGENCY COVID-19 ABSENCE POLICY
2022

Effective Dates: January 1, 2022 – December 31, 2022

Latest Revision Date: January 13, 2022

Emergency Paid Sick Leave

All full-time employees are entitled to eighty (80) hours of emergency paid sick leave (referred to as "emergency paid sick leave") between the effective dates identified herein. Said emergency paid sick leave may only be used for the following reasons:

1. The employee has been advised by a health care provider to isolate or self-quarantine because of COVID-19.

2. The employee needs to isolate or self-quarantine per the procedures in Section 3 of the District's COVID Preparedness Plan.

3. The employee is caring for a family member who has been advised by a health care provider to isolate or quarantine because of COVID-19. For the purposes of this temporary policy, a family member is defined as any of the following: child, spouse, domestic partner, sibling, parent, mother-in-law, father-in-law, grandchild, grandparent or stepparent (collectively defined as "eligible family member").

4. For the employee to have a COVID-19 vaccine or booster shot administered.

5. The employee's ability to perform his/her regular work duties is affected by side effects of the COVID-19 vaccine or booster shot.

Any emergency paid sick leave that has not been used by the end of the effective dates identified herein will be forfeited. If an employee runs out of emergency paid sick leave and needs additional time off due to a COVID-19 absence, the employee may use regular accrued sick leave, vacation time or personal leave as allowed by the District's Employee Policy Manual.

In order to receive emergency paid sick leave, the following notification procedure must be followed:

1. For employees who have been advised to isolate or quarantine, the employee must call on the first day of isolation or quarantine in accordance with the rules outlined below. For employees who are experiencing side effects from being vaccinated, the

employee must call on every day in accordance with the rules outlined below and proof of vaccination should be provided.

2. The employee must call his/her immediate supervisor and notify him/her that the employee will not be reporting to work. The employee must specify whether the absence is due to their own personal illness/quarantine or if it is due to the illness/quarantine of an eligible family member. Employees unable to reach their supervisor must notify any other supervisor. If none of these individuals are available, the employee must notify the General Manager. If the General Manager is not available, the employee must leave a message with the District office personnel (not with the answering service or in voicemail) and the employee will receive a call back from the appropriate individual. When under a government issued Stay at Home Order, the District office will be open to calls Monday through Friday between 8:00 a.m. and 2:00 p.m.

3. The employee must call in within one (1) hour after the employee's scheduled starting time.

4. If an employee calls in and leaves a message with a fellow employee or with the answering service and does not follow the call-in procedure outlined above, the employee will not receive emergency paid sick leave for the absence.

5. When an employee who has been instructed to isolate or quarantine calls to provide notification of his/her absence, the employee must indicate the expected duration of the leave as determined by the health care provider. If the expected duration of the leave changes during the course of the leave, the employee needs to notify his/her supervisor immediately. The employee will not be held to the expected return date. This is solely to assist the employee's supervisor with scheduling staffing for the expected duration of the employee's leave. The employee may only return to work once the Back to Work Clearance provisions provided herein are met.

6. When the employee calls to provide notification of his/her absence, the employee's supervisor may ask questions as needed to ascertain whether other District employees were potentially exposed to COVID-19 thereby requiring the District to take additional measures to prevent the spread to other employees. The District's Safety Coordinator will conduct a phone interview to determine potential exposures. Please note that COVID-19 related absences are still covered by HIPAA.

Back to Work Clearance

Any employee returning to work after isolation/quarantine due to COVID-19 must follow the procedures detailed in the District's COVID-19 Preparedness Plan that apply to their reason for isolation/quarantine:

Section 3.3 – Employees Who Have Symptoms
Section 3.4 – Employees Who Have Tested Positive for COVID-19

Section 3.5 – Employees Who Have Been Exposed to COVID-19 Positive Individuals

Any employee returning to work after more than three (3) consecutive days of utilizing emergency paid sick leave to recover from side effects of the COVID-19 vaccine must furnish to his/her supervisor a back to work release from a duly licensed physician.

If for any case above a back to work release is provided, it may be from a tele-health provider.

Return to Work Practices

Any employee returning to work after a COVID-19 related absence shall:

1. Adhere to all the procedures provided in the District's COVID-19 Preparedness Plan.

2. Self-monitor for symptoms and seek evaluation from a health care provider if symptoms occur or recur.

ATTACHMENT B – QUESTIONS TO ASK RESIDENTS NEEDING INSPECTION

Initial Call Taken By*:*			Date:	
Resident Name:				
Property Address:				
Best Contact Phone Number:				
REQUIRED QUESTIONS	Upon Scheduling		Day of Inspection	
Date Questions Asked				
Questions asked by *(DGSD employee initials)*:				
	YES	NO	YES	NO
Have you or anyone in your household been diagnosed with COVID-19 in the past 10 days?				
Have you or anyone is your household experienced any of the following symptoms today or in the last 10 days? *(read each symptom and check appropriate response)*				
Fever or Chills				
Cough				
Shortness of breath or difficulty breathing				
Fatigue				
Muscle or body aches				
Headache				
New loss of taste or smell				
Sore throat				
Congestion or runny nose				
Nausea or Vomiting				
Diarrhea				
Have you been exposed to anyone who has tested positive for COVID-19 in the past 10 days?				