VILLAGE OF POPLAR GROVE

"A Great Place to Call Home"

VILLAGE BOARD OF TRUSTEES

Wednesday, September 21, 2022 - 7:00 PM

200 N. Hill Street, Poplar Grove, IL 61065

AGENDA

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF PHONE PARTICIPATION (Roll Call)

APPROVAL OF AGENDA (Voice Vote)

APPROVAL OF MINUTES (Voice Vote)

1. Motion to approve minutes from August 17, 2022 committee meeting, public hearing meeting and village board meeting

PUBLIC COMMENT *Public Comment is encouraged. The Village Board will receive comments from the public, pursuant to State Statutes. Comments will be limited to five minutes on topics relating to the Village of Poplar Grove. Be further advised that matters brought up at this time may be referred to the appropriate committee or individual for further discussion or consideration.*

DEPARTMENT REPORTS

2. Clerk, Karri Anderberg
3. Treasurer, Carina Boyd
4. Public Works, David Howe
5. Wastewater, Test
6. Engineer, McMahon
7. Code and Permit, B&F
8. Attorney, Sosnowski Szeto
9. President Report, Don Sattler - Update on OSLAD Grant

NEW BUSINESS

10. Discuss/Approve closure of a part of State Street for the Poplar Grove Community Market on September 25th
11. Discuss/approve **Resolution 2022-35** a resolution of the Village of Poplar Grove, Illinois to authorize the Village President, The Village Clerk and the Village Public Works Director to approve applications for block parties/community events
12. Discuss/approve **Resolution 2022-36** a resolution of the Village of Poplar Grove to approve its phosphorus discharge feasibility study
13. Motion to discuss/approve check disbursement for payments scheduled to be paid prior to September 31, 2022, in the amount of $253,511.51 in AP checks, $10,132.68 in insurance expense checks, and $8,944.84 EFTS for a total of $272,589.03.

GOOD OF THE VILLAGE

Planning and Zoning September 28, 2022 6:00pm
Board of Trustees October 12, 2022 7:00pm
Board of Trustees October 19, 2022 7:00pm
Planning and Zoning October 26, 2022 6:00pm
Trick or Treating October 31, 2022 4:00pm-7:00pm

ADJOURNMENT (Voice Vote)

KJA 09/19/2022

VILLAGE OF POPLAR GROVE

"A Great Place to Call Home"

COMMITTEE OF THE WHOLE

Wednesday, August 17, 2022 - 6:00 PM

200 N. Hill Street, Poplar Grove, IL 61065

MINUTES

CALL TO ORDER
Meeting called to order at 6:00pm by President Sattler

ROLL CALL

PRESENT
Admin Chairman Ron Quimby
Finance Chairman Eric Miller
Trustee Jeff Goings arrived at 6:41pm
Trustee Ed Wethington
Trustee Dan Cheek
Trustee Betsy Straw
Clerk Karri Anderberg
Attorney Roxanne Sosnowski
Treasurer Carina Boyd
Building Official Seth Summers

APPROVAL OF PHONE PARTICIPATION (Roll Call)

APPROVAL OF AGENDA (Voice Vote)
Motion made by Finance Chairman Miller, Seconded by Admin Chairman Quimby. Motion passed by voice vote.

PUBLIC COMMENT *Public Comment is encouraged. The Village Board will receive comments from the public, pursuant to State Statutes. Comments will be limited to five minutes on topics relating to the Village of Poplar Grove. Be further advised that matters brought up at this time may be referred to the appropriate committee or individual for further discussion or consideration.*
no comment

OLD BUSINESS - ADMINISTRATION

1. Discussion and possible recommendation to the village board approve **Resolution 2022-28** a resolution of the Village of Poplar Grove, Illinois approving and publishing policy of when building permits are not required for existing buildings
   Motion made by Trustee Wethington, Seconded by Finance Chairman Miller.
   Seth Sommers introduced him self and went over the two different documents. He stated some things he would change
   Each trustee and Village President spoke on what they want to see in the document. Trustees are all concerned that President Sattler's version was pulled from the City of Chicago and the Village is not home ruled. President Sattler stated that "if it works for Chicago it will work for us"
   Clerk Anderberg suggested she reach out to some of her clerk connects to see if there are any seminar documents for non home rule committee.
   Building Official Sommers and Clerk Anderberg will do some more research and then come back to the Village Board. Trustees would like to see a workshop scheduled on a separate day so they can go over all documents.

ADJOURNMENT (Voice Vote)

KJA 08/15/2022
Motion made by Finance Chairman Miller, Seconded by Trustee Cheek. Motion passed by voice vote
Meeting adjourned at 7:08pm

VILLAGE OF POPLAR GROVE

"A Great Place to Call Home"

Minutes – PUBLIC HEARING

Wednesday, August 17, 2022 - 7:00 PM

200 N. Hill Street, Poplar Grove, IL 61065

MINUTES

ROLL CALL

Meeting called to order at 7:12pm by President Sattler

PRESENT

Admin Chairman Ron Quimby
Finance Chairman Eric Miller
Trustee Jeff Goings arrived
Trustee Ed Wethington
Trustee Dan Cheek
Trustee Betsy Straw
Clerk Karri Anderberg
Attorney Roxanne Sosnowski
Treasurer Carina Boyd
Building Official Seth Summers

APPROVAL OF AGENDA

Motion made by Trustee Wethington, Seconded by Finance Chairman Miller. Motion passed by voice vote

CONVENE PUBLIC HEARING

Public Hearing for Village of Poplar Grove Special Service Area number 2 regarding 13150 IL Route 76 (Oak Lawn Mobile Home Park)

Motion made by Admin Chairman Quimby, Seconded by Trustee Wethington.

Public Hearing opened at 7:13pm

Attorney Roxanne Sosnowski gave a overview on the public hearing

PUBLIC COMMENT

no public comment

CLOSE PUBLIC HEARING

Motion made by Finance Chairman Miller, Seconded by Trustee Goings. Motion passed by voice vote

Meeting closed at 7:16 pm

ADJOURNMENT

Motion made by Trustee Wethington, Seconded by Finance Chairman Miller. Motion passed by voice vote

Meeting adjourned at 7:16pm

VILLAGE OF POPLAR GROVE

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VILLAGE BOARD OF TRUSTEES

Wednesday, August 17, 2022 - 7:00 PM

200 N. Hill Street, Poplar Grove, IL 61065

MINUTES

CALL TO ORDER
Meeting called to order at 7:17pm by President Sattler

ROLL CALL
PRESENT
Admin Chairman Ron Quimby
Finance Chairman Eric Miller
Trustee Jeff Goings arrived
Trustee Ed Wethington
Trustee Dan Cheek
Trustee Betsy Straw
Clerk Karri Anderberg
Attorney Roxanne Sosnowski
Treasurer Carina Boyd

PLEDGE OF ALLEGIANCE

APPROVAL OF PHONE PARTICIPATION (Roll Call)

APPROVAL OF AGENDA (Voice Vote)
Motion made by Finance Chairman Miller, Seconded by Trustee Cheek. Motion passed by voice vote.

Motion made by Trustee Goings, Seconded by Finance Chairman Miller to add item 16 to read discuss main street drainage Motion passed by voice vote
Motion made by Finance Chairman Miller, Seconded by Admin Chairman Quimby Motion to read as follows discuss/approve check disbursement for payments scheduled to be paid prior to August 30, 2022, in the amount of $362,153.54 in AP checks, $15,241.08 in insurance expense checks, and $8,944.84 EFTS for a total of $377.394.62. Motion passed by voice vote

APPROVAL OF MINUTES (Voice Vote)

1. Motion to approve minutes from July 20, 2022 board meeting
   Motion made by Trustee Goings, Seconded by Trustee Cheek. Motion passed by voice vote. Trustee Wethington abstained

PUBLIC COMMENT *Public Comment is encouraged. The Village Board will receive comments from the public, pursuant to State Statutes. Comments will be limited to five minutes on topics relating to the Village of Poplar Grove. Be further advised that matters brought up at this time may be referred to the appropriate committee or individual for further discussion or consideration.*

DEPARTMENT REPORTS

2. Wastewater, TEST Inc
   no questions
3. Public Works, David Howe
   no questions
4. Code and Permits, B&F
   Building Official Sommers gave a verbal report
5. Treasurer, Carina Boyd
6. Clerk, Karri Anderberg
7. Engineer, McMahon
   Engineer Dopkins gave an update on phosphorus discharge
8. Attorney, Sosnowski Szeto
   Attorney Sosnowski gave an update on the airport

NEW BUSINESS

9. Discuss/approve sewer credit in the amount of $519.89 for Dean Svarc
   Motion made by Finance Chairman Miller, Seconded by Trustee Cheek.
   Voting Yea: Finance Chairman Miller, Admin Chairman Quimby, Trustee Goings, Trustee Wethington, Trustee Cheek, Trustee Straw
   Clerk Anderberg updated to board on the file
10. Discuss/approve waving of disconnection fee of $110.00 for 113 Edson
    Motion made by Trustee Goings, Seconded by Admin Chairman Quimby.

    Voting Nay: Finance Chairman Miller, Admin Chairman Quimby, Trustee Goings, Trustee Wethington, Trustee Cheek, Trustee Straw
    Clerk Anderberg gave the back ground on the home.
11. Discussion on Phosphorous Discharge Optimization Plan for south waste water treatment plant
    Motion made by Finance Chairman Miller, Seconded by Trustee Cheek.
    Engineer Dopkins gave his report on the issue. Dopkins stated that the EPA is now requiring for the levels to be below .05.

12. Discuss/approve **Resolution 2022-32** a resolution of the Village of Poplar Grove to amend a profession service agreement with McMahon Associates, Inc for design, bid and construction engineering services for the Public works building site
13. Discuss/Approve Intergovernmental Agreement with the Boone County Sheriff for E-Citation Court Fees
    Motion made by Finance Chairman Miller, Seconded by Trustee Wethington.
    Voting Yea: Finance Chairman Miller, Admin Chairman Quimby, Trustee Goings, Trustee Wethington, Trustee Cheek, Trustee Straw
    Motion made by Finance Chairman Miller, Seconded by Trustee Wethington to read the following Intergovernmental Agreement with the Boone County for E-Citation Court Fees
    Voting Yea: Finance Chairman Miller, Admin Chairman Quimby, Trustee Goings, Trustee Wethington, Trustee Cheek, Trustee Straw

14. Discuss/Approve proposal from Staff Management, Inc. for sexual harassment/harassment training for Village Trustees and Village President
    Motion made by Trustee Goings, Seconded by Trustee Cheek.
    Voting Yea: Finance Chairman Miller, Admin Chairman Quimby, Trustee Goings, Trustee Wethington, Trustee Cheek, Trustee Straw
    Attorney Sosnowski explained that this was at the request of the board and any board member or staff can attend the training.
15. Motion to discuss/approve check disbursement for payments scheduled to be paid prior to August 30, 2022, in the amount of $165,928.96 in AP checks, $15,241.08 in insurance expense checks, and $8,944.84 EFTS for a total of $190,114.88.
    Motion made by Finance Chairman Miller, Seconded by Admin Chairman Quimby.
    Voting Yea: Finance Chairman Miller, Admin Chairman Quimby, Trustee Goings, Trustee Wethington, Trustee Cheek, Trustee Straw

16. Main Street Drainage

    Motion made by Finance Chairman Miller, Seconded by Trustee Wethington.
    Trustee Goings would like to discuss Main Street Drainage around 330 and 326 Main Street. PWD Howe the weeds are an issue and he will put it on the list. Trustee Goings also explained that trees from the bike path have fallen in the area. PWD will follow up with the conservation district to see if they can get the tree removed.

GOOD OF THE VILLAGE

Planning and Zoning Meeting - August 24, 2022 6PM
Village Hall Closed September 5, 2022
Recycling Event September 9th, 10th, 11th
Board of Trustees Meeting - September 14, 2022 7pm
Board of Trustees Meeting- September 21, 2022 7pm

ADJOURNMENT (Voice Vote)

KJA 08/15/2022
Motion made by Admin Chairman Quimby, Seconded by Finance Chairman Miller. Motion passed by voice vote.
meeting adjourned at 8:22pm

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www.villageofpoplargrove.com

August/September 2022

Clerk Monthly Report

General

Can't believe that we are saying this, but we had our first meeting for the tree lighting. We plan on changing it up a little bit and we have already confirmed the North Boone HS choir team.

FOIA

We had 2 FOIA for the month of August

1. Robin- Connie Description of requested public records: Issued building permits for both commercial and residential with a value of 100,000.00 and up. This request would like all information pertaining to these such as contractor name and addresses, property number, owner of said property, subdivision name and lot number if residential, residential demo permits. I would prefer this report by email. I am disclosing that this request is for commercial purposes.
2. 337 Thron ridge court – would like to a copy of all inspections and permits for the property

PERMITS

For the month of August We had 30 residential permits.

CODE

We had 5 code violations and 8 stop work order. 3 code violations will be going to admin hearing in October. We are working with Public Works on mowing violations and getting them cut.

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AUGUST 2022 TREASURER'S REPORT

Monthly Reports:

Attached you will find August's financial reports.

Monthly Activities:

- All monthly financial tasks were completed.
- Attached is a list of all payments issued in August.
- Invoices scheduled to be paid in the month of September: $253,511.51 in AP checks, $10,132.68 in Insurance Expense checks, and $8,944.84 in EFTS. Grand Total: $272,589.03.
- Due to our 4/30/22 fiscal year end, no financial statements are available for August.

Ongoing Activities

- Our fiscal year ended 04/30/2022. The audit was wrapped up and it is ready for board approval in September.

Carina

09/16/2022 CHECK REGISTER

CHECK DATE FROM 08/01/2022 - 08/31/2022

Check Date	Bank	Check	App Vendor	Vendor Name	Amount
Bank OPER COMMINGLED OPERATING ACCOUNT					
08/01/2022	OPER	27492	PR BCBS OF IL	BLUE CROSS BLUE SHIELD OF ILLINOIS	14,287.34
08/01/2022	OPER	27493	PR DENTAL/VISION	HUMANA INSURANCE COMPANY	873.74
08/01/2022	OPER	27494	PR NCPERS	NCPERS	80.00
08/09/2022	OPER	27496	AP 0009	A-FIRE EXTINGUISHER SALES & SERVICE	707.00
08/09/2022	OPER	27497	AP 0596	A.C. MCCARTNEY	951.74
08/09/2022	OPER	27498	AP 0371	ABBY PEST ELIMINATION LLC	270.00
08/09/2022	OPER	27499	AP 0006	ADT COMMERCIAL LLC	185.22
08/09/2022	OPER	27500	AP 0338	AMAZON.COM	505.49
08/09/2022	OPER	27501	AP 0485	AREA MECHANICAL, INC.	280.00
08/09/2022	OPER	27502	AP 0356	B&F CONSTRUCTION CODE SERVICE, INC.	8,967.27
08/09/2022	OPER	27503	AP MISC	BILLY J. EVANS	43.77
08/09/2022	OPER	27504	AP 0361	BLAIN'S FARM & FLEET	1,318.72
08/09/2022	OPER	27505	AP 0051	BOBCAT OF ROCKFORD	394.20
08/09/2022	OPER	27506	AP 0055	BOONE COUNTY HIGHWAY DEPARTMENT	1,037.60
08/09/2022	OPER	27507	AP 0277	BS&A SOFTWARE	1,671.00
08/09/2022	OPER	27508	AP 0078	CARD SERVICE CENTER	2,780.25
08/09/2022	OPER	27509	AP 0098	CINTAS CORPORATION #355	231.68
08/09/2022	OPER	27510	AP 0594	CIVICPLUS	790.00
08/09/2022	OPER	27511	AP 0074	COLLINS SANITARY LLC	2,100.00
08/09/2022	OPER	27512	AP 0278	COMED	11,948.52
08/09/2022	OPER	27513	AP 0385	COMPASS MINERALS	1,592.01
08/09/2022	OPER	27514	AP 0073	CONSERV FS INC	180.17
08/09/2022	OPER	27515	AP 0347	CORE & MAIN LP	5,560.81
08/09/2022	OPER	27516	AP MISC	DAVID & COLETTE O'DONNELL	160.37
08/09/2022	OPER	27517	AP 0097	FOX VALLEY INTERNET, INC.	54.90
08/09/2022	OPER	27518	AP 0096	FRONTIER	855.83
08/09/2022	OPER	27519	AP 0424	GO TO COMMUNICATIONS INC	312.18
08/09/2022	OPER	27520	AP 0106	GRAINGER	37.59
08/09/2022	OPER	27521	AP 0109	HAWKINS, INC.	4,344.65
08/09/2022	OPER	27522	AP 0364	HOME DEPOT CREDIT SERVICES	1,913.89
08/09/2022	OPER	27523	AP 0303	JASTER, KATIE	72.00
08/09/2022	OPER	27524	AP 0532	MARVS TOWING & REPAIR, INC.	45.25
08/09/2022	OPER	27525	AP 0159	MCMAHON ASSOCIATES, INC.	4,498.60
08/09/2022	OPER	27526	AP 0163	MEDIACOM	269.89
08/09/2022	OPER	27527	AP 0165	MENARDS	971.29
08/09/2022	OPER	27528	AP 0310	MOBOTREX, INC.	2,615.00
08/09/2022	OPER	27529	AP 0173	MONROE TRUCK EQUIPMENT, INC.	66.56
08/09/2022	OPER	27530	AP 0329	MR. GOODWATER	58.00
08/09/2022	OPER	27531	AP 0196	N-TRAK GROUP, LLC	51.81
08/09/2022	OPER	27532	AP 0053	NAPA AUTO PARTS	984.94
08/09/2022	OPER	27533	AP 0186	NICOR GAS	1,311.52
08/09/2022	OPER	27534	AP 0318	O'REILLY AUTO PARTS	168.12
08/09/2022	OPER	27535	AP 0489	P.C. TECH 2 U	300.00
08/09/2022	OPER	27536	AP 0211	PITNEY BOWES INC.	118.99
08/09/2022	OPER	27537	AP 0225	R.J. DANIELS FUEL & TIRE	36.95
08/09/2022	OPER	27538	AP 0521	RGB JANITORIAL	900.00
08/09/2022	OPER	27539	AP 0220	ROCKFORD BUSINESS SYSTEMS, INC	127.01
08/09/2022	OPER	27540	AP 0232	RUSH POWER SYSTEMS, LLC.	302.50
08/09/2022	OPER	27541	AP 0217	SOLUTIONS BANK	59.54
08/09/2022	OPER	27542	AP 0319	SOSNOWSKI SZETO, LLP	10,201.00
08/09/2022	OPER	27543	AP 0355	TEST INC.	18,192.98

09/16/2022 CHECK REGISTER

CHECK DATE FROM 08/01/2022 - 08/31/2022

Check Date	Bank	Check	App Vendor	Vendor Name	Amount
Bank OPER COMMINGLED OPERATING ACCOUNT					
08/09/2022	OPER	27544	AP 0259	TWIN TOWERS INC.	40.00
08/09/2022	OPER	27545	AP 0261	U.S. CELLULAR	666.28
08/09/2022	OPER	27546	AP 0333	UNITED SANITATION SERVICES, INC.	300.00
08/09/2022	OPER	27547	AP 0597	VERIZON	563.28
08/09/2022	OPER	27548	AP 0429	WEX BANK - MARATHON FLEET CARD	2,266.57
08/09/2022	OPER	27549	AP 0268	WILLIAM CHARLES CONSTRUCTION, LLC	364.50
08/09/2022	OPER	27550	AP 0595	ZACHERY KNIGHTEN	157.01
08/09/2022	OPER	27555	AP 0334	ANDERBERG, KARRI	59.52
08/09/2022	OPER	27556	AP 0469	MARTENSON, KYLE	66.46
08/12/2022	OPER	Various	PR Payroll	PAYROLL	12,180.53
08/12/2022	OPER	EFT499(E)	PR IRS	INTERNAL REVENUE SERVICE	3,406.03
08/12/2022	OPER	EFT500(E)	PR STATE OF IL	STATE OF ILLINOIS	681.18
08/17/2022	OPER	27551	AP 0055	BOONE COUNTY HIGHWAY DEPARTMENT	42,500.00
08/17/2022	OPER	27552	AP 0068	COMPLETE INTEGRATION & SERVICES LLC	9,500.00
08/17/2022	OPER	27553	AP 0144	LAUTERBACH & AMEN, LLP	13,930.00
08/17/2022	OPER	27554	AP 0160	MCGILVRA ELECTRIC INC	4,968.53
08/17/2022	OPER	27557	AP 0526	CURRAN CONTRACTING	186,704.74
08/17/2022	OPER	27558	AP 0527	GEOCON PROFESSIONAL SERVICES, LLC.	575.00
08/20/2022	OPER	106(E)	AP 0491	BB COMMUNITY LEASING SERVICES INC.	2,252.11
08/20/2022	OPER	107(E)	AP 0491	BB COMMUNITY LEASING SERVICES INC.	4,691.70
08/20/2022	OPER	108(E)	AP 0217	SOLUTIONS BANK	2,001.03
08/26/2022	OPER	Various	PR Payroll	PAYROLL	11,762.96
08/26/2022	OPER	EFT501(E)	PR IRS	INTERNAL REVENUE SERVICE	3,348.97
08/26/2022	OPER	EFT502(E)	PR STATE OF IL	STATE OF ILLINOIS	668.00
08/26/2022	OPER	EFT503(E)	PR IMRF	IMRF	3,302.98
08/26/2022	OPER	27560	PR UNION DUES	I.U.O.E. LOCAL 150	103.82
Total of 97 Checks:					412,849.09
Less 0 Void Checks:					0.00
Total of 97 Disbursements:					412,849.09

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Public Works Report, August 2022

- Poured replacement sidewalk squares at 2 properties that were previously removed during sewer lateral repair.
- Flush Burled Wood sanitary system.
- Excavated and repaired a sanitary service on Ray St as well as Park St.
- After receiving complaints regarding flags at Lions (size and lighting) and Memorial (damage), we replaced all 3 flags we own with a size larger, and changed the lighting to the pole at Lions. We have surprisingly received quite a few compliments on the new flags.
- Sabel and McGilvera finished up the new electrical panel at the Headworks building at NWWTP, and Jake backfilled the open trench.
- Continued with new build inspections.
- Continued with weekly mowing, including mowing roads, drainage ways, and empty lots the last week of August.
- At various points throughout the month, the guys were able to catch up on some routine equipment maintenance.
- We were able to paint the school crosswalks and school zone areas, as well as the crosswalks on the three roads intersecting the bike path. However, due to the inability to get white road paint, we were not able to do the crosswalk at Edson or at Brittany.
- Stenstrom started and completed drainage repair between Park St and Sherman St.
- On 8/24, I received approval from Don and Carina to have our Kubota MX5200 (the smaller of our two Kubota tractors) repaired. While mowing Lions Park, the machine shut down. After replacing the battery, we determined that it could possibly be a fried ECU. Bobcat of Rockford confirmed this. The replacement ECU was $2,732.82 and shipping at $35, with Labor coming it at $630. This ended up totaling $3,397.82.
- Zach obtained his CLP (CDL permit) and is on track to take his driving test by the end of September. Jake is looking at taking his CLP test at the end of September.
- Continued the interview process for a fourth team member, hoping to have narrowed down candidates and make a selection by the end of September.

- Craig Wilcox was out for the annual fire inspection at the beginning of the month and, with the exception of a new exit sign at the shop and a battery in a plant exit sign, everything came back without any issues.
- Annual preventative maintenance (PM1) was completed the last week of August on all our lift station and large portable generators. Rush Power Systems did the work.
- After receiving direction to look into playground equipment, I reached out to Doug Oberbroeckling at Cunningham Recreation. We have previously used this company for both West Grove and Sherman playgrounds. He and I had some back and forth, and came up with a few playset options for the village if Mansfield Park were to proceed. These are items that we will have more detail on in the coming weeks.
- Met with Don Howe from Pearson Plumbing regarding replacing a section of pipe at Well 5 + 6. Tentatively have this replacement on schedule for the end of September.
- Was able to renew standing agreements with Pearson Plumbing, BK Concrete, Stenstrom Group, and Sabel Mechanical this month.
- Met with Glen from Lions Club regarding adding bleachers to diamond 3 at Lions Park, as well as pouring concrete pads for these and the existing bleachers at diamond 4. Hoping to get these pads poured sometime in the beginning of October.
- Have had multiple conversations with Kristi Richardson regarding the Poplar Grove Community Market. Public Works will make sure that the park is mowed, weeded, and cleaned up the Friday before the market.
- I have asked to attach an agenda item regarding the closure of Main St during the market.

TEST Inc.
2323 Fourth Street
P.O. Box 483
Peru, Illinois 61354
815-224-1650
800-659-4659
FAX 815-224-1688
www.testinc.com

September 7, 2022

Client: Village of Poplar Grove
Attn: Don Sattler, Village President
200 Hill Street
P.O. Box 01
Poplar Grove, IL 61065

Plant Type: Wastewater Treatment Plants: North: Class II Sequential batch reactors (SBR).
South: Class I Sequential batch reactors (SBR).
Water Treatment Plants: Well Supply with Chemical Addition in all 3 locations

For the water system you will find attached the daily inspection and monitoring reports for each of the water plants and the distribution system testing record. For the wastewater side we have included the monthly DMR for both wastewater plants.

Outlined below are the processes and actions taken during August 2022 in Poplar Grove to improve the facilities equipment beyond required and routine maintenance, testing, inspection and reporting. At times we will also list upcoming needed improvements that may need attention by the Village.

Lift Stations:

- We have Sable coming out to look at some issues with the main lift station that we can't figure out.
- All PM's have been done on all the generators at the lift station.
- Cleaned grease and rags off floats and transducers.
- Have a call in to Collins to come and do the normal fall cleaning of lift stations.

North WWTP:

- All standard monthly checks/maintenance/cleaning and producers were completed.
- PM was done on the generator by rush power.
- Decanted digesters
- The new screen has been working great and we are getting a lot more rags out of the influent than before. We are having to empty the rag bucket every day.
- Tested all emergency wash stations and portable generators.
- Cleaned EQ tanks.
- Cleaned UV channel.

South WWTP:

- All standard monthly checks/maintenance/cleaning and producers were completed.
- Changed broken airline on SBR1.
- PM was done on generator.
- Cleaned sand filter room.
- Fixed issues with chem recirc pump.
- Weed wacked plant fence line.
- Tested all emergency wash stations.
- Decanted digesters.

Water System:

- Cleaned well houses.
- Lead and copper samples results for south system have been sent out.

- Replaced chemical pump tubing at Well 3.
- Replaced chemical pump line at Well 4.
- All required EPA testing has been done.
- Cleaned well houses.

All operations and plant inspections have been performed by me or under my direct supervision. As always, if you have any questions concerning the above, please do not hesitate to contact me.

Submitted by,
Total Environmental Service Technologies, Inc.
Ion Stear
Certified Operator/Manager

DMR Copy of Record

Permit

Permit #:	IL0023451	Permittee:	POPLAR GROVE, VILLAGE OF	Facility:	POPLAR GROVE - NORTH WWTP, VILLAGE OF
Major:	No	Permittee Address:	PO BOX 1 POPLAR GROVE, IL 61065	Facility Location:	205 EDSON RD POPLAR GROVE, IL 61065
Permitted Feature:	001 External Outfall	Discharge:	001-0 STP OUTFALL		

Report Dates & Status

Monitoring Period:	From 07/01/22 to 07/31/22	DMR Due Date:	08/25/22	Status:	NetDMR Validated

Considerations for Form Completion

BOW ID: W0070150007; DMF LOAD LIMITS DISPLAYED.MONITORING LOCATION "1" IS FORMONTHLY AVERAGE AND DAILY MAXIMUM.MONITORING LOCATION "8" IS FORWEEKLY AVERAGE.

Principal Executive Officer

First Name:	Ion	Title:	Certified Operator	Telephone:	815-224-1650
Last Name:	Stear				

No Data Indicator (NODI)

Form NODI: –

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Quantity or Loading Value 1	Quantity or Loading Qualifier 2	Quantity or Loading Value 2	Quantity or Loading Units	Quality or Concentration Qualifier 1	Quality or Concentration Value 1	Quality or Concentration Qualifier 2	Quality or Concentration Value 2	Quality or Concentration Qualifier 3	Quality or Concentration Value 3	Quality or Concentration Units	# of Ex.	Frequency of Analysis	Sample Type
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	–	Sample								=	8.19	=	8.13	19 - mg/L		02/DA - 2 Days Every Week	GR - GRAB
					Permit Req.								>=	6.25 MN WK AV	>=	5.0 DAILY MN	19 - mg/L	0	02/DA - 2 Days Every Week	GR - GRAB
					Value NODI															
00400	pH	1 - Effluent Gross	0	–	Sample						=	8.02			=	8.61	12 - SU		02/DA - 2 Days Every Week	GR - GRAB
					Permit Req.						>=	6.0 MINIMUM			<=	9.0 MAXIMUM	12 - SU	0	02/DA - 2 Days Every Week	GR - GRAB
					Value NODI															
X 00530	Solids, total suspended	1 - Effluent Gross	0	–	Sample	=	32.795	=	120.471	26 - lb/d			=	12.25	=	45.0	19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Permit Req.	<=	125.0 MO AVG	<=	250.0 DAILY MX	26 - lb/d			<=	12.0 MO AVG	<=	24.0 DAILY MX	19 - mg/L	2	02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	–	Sample	=	0.744	=	1.606	26 - lb/d			=	0.278	=	0.6	19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Permit Req.	<=	16.0 MO AVG	<=	31.0 DAILY MX	26 - lb/d			<=	1.5 MO AVG	<=	3.0 DAILY MX	19 - mg/L	0	02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	–	Sample	=	0.321	=	0.523	03 - MGD									99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								0	99/99 - Continuous	
					Value NODI															
50060	Chlorine, total residual	1 - Effluent Gross	0	–	Sample										=	0.0	19 - mg/L		01/30 - Monthly	GR - GRAB
					Permit Req.										<=	0.05 DAILY MX	19 - mg/L	0	01/30 - Monthly	GR - GRAB
					Value NODI															
74055	Coliform, fecal general	1 - Effluent Gross	0	–	Sample										T					
					Permit Req.											Req Mon DAILY MX	13 - #/100mL		01/30 - Monthly	GR - GRAB
					Value NODI															
80082	BOD, carbonaceous [5 day, 20 C]	1 - Effluent Gross	0	–	Sample	=	12.716	=	1.4	26 - lb/d			=	4.75	=	13.0	19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Permit Req.	<=	104.0 MO AVG	<=	209.0 DAILY MX	26 - lb/d			<=	10.0 MO AVG	<=	20.0 DAILY MX	19 - mg/L	0	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

Parameter Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes

Comments

TSS went over permit limit due to a decanter failing to close and allowing some solids to get into the effluent tank. Decanter has since been fixed.

Attachments

No attachments.

Report Last Saved By

POPLAR GROVE, VILLAGE OF

User:	ebumgarner
Name:	Elaine Bumgarner
E-Mail:	ebumgarner@testinc.com
Date/Time:	2022-08-17 11:12 (Time Zone: -05:00)
Report Last Signed By	
User:	IONSTEAR
Name:	Ion Stear
E-Mail:	istear@testinc.com
Date/Time:	2022-08-22 14:36 (Time Zone: -05:00)

DMR Copy of Record

Permit

Permit #:	**IL0023451**	Permittee:	POPLAR GROVE, VILLAGE OF	Facility:	POPLAR GROVE - NORTH WWTP, VILLAGE OF
Major:	No	Permittee Address:	PO BOX 1 POPLAR GROVE, IL 61065	Facility Location:	205 EDSON RD POPLAR GROVE, IL 61065
Permitted Feature:	INF Influent Structure	Discharge:	**INF-L** INFLUENT MONITORING		

Report Dates & Status

Monitoring Period:	**From 07/01/22 to 07/31/22**	DMR Due Date:	**08/25/22**	Status:	**NetDMR Validated**

Considerations for Form Completion

BOW ID: W0070150007

Principal Executive Officer

First Name:	Ion	Title:	Certified Operator	Telephone:	815-224-1650
Last Name:	Stear				

No Data Indicator (NODI)

Form NODI: –

Parameter Code	Parameter Name	Monitoring Location	Source #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00310	**BOD, 5-day, 20 deg. C**	G - Raw Sewage Influent	0	–	Sample						=	126.625					19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Permit Req.							Req Mon MO AVG					19 - mg/L	0	02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
00530	**Solids, total suspended**	G - Raw Sewage Influent	0	–	Sample						=	242.75					19 - mg/L		02/DA - 2 Days Every Week	CP - COMPOS
					Permit Req.							Req Mon MO AVG					19 - mg/L	0	02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
50050	**Flow, in conduit or thru treatment plant**	G - Raw Sewage Influent	0	–	Sample	=	0.203	=	0.341	03 - MGD									99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								0	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

POPLAR GROVE, VILLAGE OF

User:	ebumgarner
Name:	Elaine Bumgarner
E-Mail:	ebumgarner@testinc.com
Date/Time:	2022-08-17 10:28 (Time Zone: -05:00)

Report Last Signed By

User:	IONSTEAR
Name:	Ion Stear
E-Mail:	istear@testinc.com
Date/Time:	2022-08-22 14:36 (Time Zone: -05:00)

DMR Copy of Record

Permit

Permit #:	IL0071447	Permittee:	POPLAR GROVE, VILLAGE OF	Facility:	POPLAR GROVE SOUTH STP, VILLAGE OF
Major:	Yes	Permittee Address:	200 S HILL ST POPLAR GROVE, IL 61065	Facility Location:	12211 STATE ROUTE 76 POPLAR GROVE, IL 61065
Permitted Feature:	001 External Outfall	Discharge:	**001-S** SEMI ANNUAL SAMPLING @ 001		

Report Dates & Status

Monitoring Period:	**From 02/01/22 to 07/31/22**	DMR Due Date:	**08/25/22**	Status:	**NetDMR Validated**

Considerations for Form Completion

BOW ID: W0070150006

Principal Executive Officer

First Name:	Ion	Title:	Certified Operator	Telephone:	815-224-1650
Last Name:	Stear				

No Data Indicator (NODI)

Form NODI: --

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Quantity or Loading Value 1	Quantity or Loading Qualifier 2	Quantity or Loading Value 2	Quantity or Loading Units	Quality or Concentration Qualifier 1	Quality or Concentration Value 1	Quality or Concentration Qualifier 2	Quality or Concentration Value 2	Quality or Concentration Qualifier 3	Quality or Concentration Value 3	Quality or Concentration Units	# of Ex.	Frequency of Analysis	Sample Type
00556	**Oil & Grease**	1 - Effluent Gross	0	--	Sample						<	5.0				19 - mg/L		09/99 - See Permit	GR - GRAB
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	GR - GRAB
					Value NODI														
00720	**Cyanide, total [as CN]**	1 - Effluent Gross	0	--	Sample						=	0.0				28 - ug/L		09/99 - See Permit	GR - GRAB
					Permit Req.							Req Mon DAILY MX				28 - ug/L	0	09/99 - See Permit	GR - GRAB
					Value NODI														
00722	**Cyanide, free [amenable to chlorination]**	1 - Effluent Gross	0	--	Sample						=	0.0				28 - ug/L		09/99 - See Permit	GR - GRAB
					Permit Req.							Req Mon DAILY MX				28 - ug/L	0	09/99 - See Permit	GR - GRAB
					Value NODI														
00951	**Fluoride, total [as F]**	1 - Effluent Gross	0	--	Sample						=	0.438				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01002	**Arsenic, total [as As]**	1 - Effluent Gross	0	--	Sample						<	0.000979				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01007	**Barium, total [as Ba]**	1 - Effluent Gross	0	--	Sample						=	0.033				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01027	**Cadmium, total [as Cd]**	1 - Effluent Gross	0	--	Sample						<	0.001				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01032	**Chromium, hexavalent [as Cr]**	1 - Effluent Gross	0	--	Sample						<	0.005				19 - mg/L		09/99 - See Permit	GR - GRAB
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	GR - GRAB
					Value NODI														
01034	**Chromium, total [as Cr]**	1 - Effluent Gross	0	--	Sample						<	0.00152				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01042	**Copper, total [as Cu]**	1 - Effluent Gross	0	--	Sample						=	0.00653				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01045	**Iron, total [as Fe]**	1 - Effluent Gross	0	--	Sample						=	0.0831				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01046	**Iron, dissolved [as Fe]**	1 - Effluent Gross	0	--	Sample						=	0.00608				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														
01051	**Lead, total [as Pb]**	1 - Effluent Gross	0	--	Sample						<	0.0091				19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.							Req Mon DAILY MX				19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI														

01055	**Manganese, total [as Mn]**	1 - Effluent Gross	0	--	Sample	=	0.0219	19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.		Req Mon DAILY MX	19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI						
01067	**Nickel, total [as Ni]**	1 - Effluent Gross	0	--	Sample	=	0.00319	19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.		Req Mon DAILY MX	19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI						
01077	**Silver, total [as Ag]**	1 - Effluent Gross	0	--	Sample	<	0.00168	19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.		Req Mon DAILY MX	19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI						
01092	**Zinc, total [as Zn]**	1 - Effluent Gross	0	--	Sample	=	0.0243	19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.		Req Mon DAILY MX	19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI						
01147	**Selenium, total [as Se]**	1 - Effluent Gross	0	--	Sample	<	0.00216	19 - mg/L		09/99 - See Permit	24 - COMP24
					Permit Req.		Req Mon DAILY MX	19 - mg/L	0	09/99 - See Permit	24 - COMP24
					Value NODI						
32730	**Phenolics, total recoverable**	1 - Effluent Gross	0	--	Sample	=	0.006	19 - mg/L		09/99 - See Permit	GR - GRAB
					Permit Req.		Req Mon DAILY MX	19 - mg/L	0	09/99 - See Permit	GR - GRAB
					Value NODI						
71900	**Mercury, total [as Hg]**	1 - Effluent Gross	0	--	Sample	=	0.0	3M - ng/L		09/99 - See Permit	GR - GRAB
					Permit Req.		Req Mon DAILY MX	3M - ng/L	0	09/99 - See Permit	GR - GRAB
					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

POPLAR GROVE, VILLAGE OF

User:	ebumgarner
Name:	Elaine Bumgarner
E-Mail:	ebumgarner@testinc.com
Date/Time:	2022-08-08 14:26 (Time Zone: -05:00)

Report Last Signed By

User:	IONSTEAR
Name:	Ion Stear
E-Mail:	istear@testinc.com
Date/Time:	2022-08-22 14:36 (Time Zone: -05:00)

DMR Copy of Record

Permit

Permit #:	**IL0071447**	Permittee:	POPLAR GROVE, VILLAGE OF	Facility:	POPLAR GROVE SOUTH STP, VILLAGE OF
Major:	Yes	Permittee Address:	200 S HILL ST POPLAR GROVE, IL 61065	Facility Location:	12211 STATE ROUTE 76 POPLAR GROVE, IL 61065
Permitted Feature:	INF Influent Structure	Discharge:	**INF-L** INFLUENT MONITORING		

Report Dates & Status

Monitoring Period:	**From 07/01/22 to 07/31/22**	DMR Due Date:	**08/25/22**	Status:	**NetDMR Validated**

Considerations for Form Completion

BOW ID: W0070150006

Principal Executive Officer

First Name:	Ion	Title:	Certified Operator	Telephone:	815-224-1650
Last Name:	Stear				

No Data Indicator (NODI)

Form NODI: --

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00310	**BOD, 5-day, 20 deg. C**	G - Raw Sewage Influent	0	--	Sample						=	73.5					19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.							Req Mon MO AVG					19 - mg/L	0	03/DW - 3 Days Every Week	CP - COMPOS
					Value NODI															
00530	**Solids, total suspended**	G - Raw Sewage Influent	0	--	Sample						=	101.167					19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.							Req Mon MO AVG					19 - mg/L	0	03/DW - 3 Days Every Week	CP - COMPOS
					Value NODI															
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	--	Sample						=	3.523	=	4.56			19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon DAILY MX			19 - mg/L	0	03/DW - 3 Days Every Week	CP - COMPOS
					Value NODI															
50050	**Flow, in conduit or thru treatment plant**	G - Raw Sewage Influent	0	--	Sample	=	0.189	=	0.567	03 - MGD									99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								0	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

POPLAR GROVE, VILLAGE OF

User:	ebumgarner
Name:	Elaine Bumgarner
E-Mail:	ebumgarner@testinc.com
Date/Time:	2022-08-17 10:41 (Time Zone: -05:00)

Report Last Signed By

User:	IONSTEAR
Name:	Ion Stear
E-Mail:	istear@testinc.com
Date/Time:	2022-08-22 14:36 (Time Zone: -05:00)

DMR Copy of Record

Permit

Permit #:	**IL0071447**	Permittee:	POPLAR GROVE, VILLAGE OF	Facility:	POPLAR GROVE SOUTH STP, VILLAGE OF
Major:	Yes	Permittee Address:	200 S HILL ST POPLAR GROVE, IL 61065	Facility Location:	12211 STATE ROUTE 76 POPLAR GROVE, IL 61065
Permitted Feature:	001 External Outfall	Discharge:	**001-0** STP OUTFALL		

Report Dates & Status

Monitoring Period:	**From 07/01/22 to 07/31/22**	DMR Due Date:	**08/25/22**	Status:	**NetDMR Validated**

Considerations for Form Completion

BOW ID: W0070150006; DMF LOAD LIMITS DISPLAYED.

Principal Executive Officer

First Name:	Ion	Title:	Certified Operator	Telephone:	815-224-1650
Last Name:	Stear				

No Data Indicator (NODI)

Form NODI: –

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Quantity or Loading Value 1	Quantity or Loading Qualifier 2	Quantity or Loading Value 2	Quantity or Loading Units	Quality or Concentration Qualifier 1	Quality or Concentration Value 1	Quality or Concentration Qualifier 2	Quality or Concentration Value 2	Quality or Concentration Qualifier 3	Quality or Concentration Value 3	Quality or Concentration Units	# of Ex.	Frequency of Analysis	Sample Type
00300	**Oxygen, dissolved [DO]**	1 - Effluent Gross	0	–	Sample								=	7.823	=	7.19	19 - mg/L		03/DW - 3 Days Every Week	GR - GRAB
					Permit Req.								>=	6.25 MN WK AV	>=	5.0 DAILY MN	19 - mg/L	0	03/DW - 3 Days Every Week	GR - GRAB
					Value NODI															
00400	**pH**	1 - Effluent Gross	0	–	Sample						=	7.06			=	8.73	12 - SU		03/DW - 3 Days Every Week	GR - GRAB
					Permit Req.						>=	6.0 MINIMUM			<=	9.0 MAXIMUM	12 - SU	0	03/DW - 3 Days Every Week	GR - GRAB
					Value NODI															
00530	**Solids, total suspended**	1 - Effluent Gross	0	–	Sample	=	10.275	=	23.116	26 - lb/d			=	4.0	=	9.0	19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.	<=	250.0 MO AVG	<=	500.0 DAILY MX	26 - lb/d			<=	12.0 MO AVG	<=	24.0 DAILY MX	19 - mg/L	0	03/DW - 3 Days Every Week	CP - COMPOS
					Value NODI															
00600	**Nitrogen, total [as N]**	1 - Effluent Gross	0	–	Sample								=	27.38	=	32.8	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Permit Req.									Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
00610	**Nitrogen, ammonia total [as N]**	1 - Effluent Gross	1	–	Sample	=	0.324	=	0.825	26 - lb/d			=	0.126	=	0.321	19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.	<=	31.0 MO AVG	<=	113.0 DAILY MX	26 - lb/d			<=	1.5 MO AVG	<=	5.4 DAILY MX	19 - mg/L	0	03/DW - 3 Days Every Week	CP - COMPOS
					Value NODI															
00610	**Nitrogen, ammonia total [as N]**	8 - Other Treatment, Process Complete	1	–	Sample			=	0.509	26 - lb/d					=	0.198	19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.			<=	79.0 WKLY AVG	26 - lb/d					<=	3.8 WKLY AVG	19 - mg/L	0	03/DW - 3 Days Every Week	CP - COMPOS
					Value NODI															
00665	**Phosphorus, total [as P]**	1 - Effluent Gross	0	–	Sample	=	0.66			26 - lb/d			=	0.257			19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.	<=	21.0 MO AVG			26 - lb/d			<=	1.0 MO AVG			19 - mg/L	0	03/DW - 3 Days Every Week	CP - COMPOS
					Value NODI															
50050	**Flow, in conduit or thru treatment plant**	1 - Effluent Gross	0	–	Sample	=	0.308	=	0.83	03 - MGD									99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								0	99/99 - Continuous	
					Value NODI															
50060	**Chlorine, total residual**	1 - Effluent Gross	0	–	Sample										=	0.0	19 - mg/L		CL/OC - Chlorination/Occurances	GR - GRAB
					Permit Req.										<=	0.05 DAILY MX	19 - mg/L	0	CL/OC - Chlorination/Occurances	GR - GRAB
					Value NODI															
74055	**Coliform, fecal general**	1 - Effluent Gross	0	–	Sample										<	10.0	13 - #/100mL		03/DW - 3 Days Every Week	GR - GRAB
					Permit Req.										<=	400.0 DAILY MX	13 - #/100mL	0	03/DW - 3 Days Every Week	GR - GRAB
					Value NODI															
80082	**BOD, carbonaceous [5 day, 20 C]**	1 - Effluent Gross	0	–	Sample	=	3.64	=	5.137	26 - lb/d			=	1.417	=	2.0	19 - mg/L		03/DW - 3 Days Every Week	CP - COMPOS
					Permit Req.	<=	209.0 MO AVG	<=	417.0 DAILY MX	26 - lb/d			<=	10.0 MO AVG	<=	20.0 DAILY MX	19 - mg/L	0	03/DW - 3 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	
POPLAR GROVE, VILLAGE OF	
User:	ebumgarner
Name:	Elaine Bumgarner
E-Mail:	ebumgarner@testinc.com
Date/Time:	2022-08-17 10:41 (Time Zone: -05:00)
Report Last Signed By	
User:	IONSTEAR
Name:	Ion Stear
E-Mail:	istear@testinc.com
Date/Time:	2022-08-22 14:36 (Time Zone: -05:00)

VILLAGE OF POPLAR GROVE - WEST **IL0070350**
FOR THE MONTH OF July 2022 **MONTHLY OPERATING REPORT**
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

		Flow Meter		Hour Meter Well 4		Chlorine Feed			Phosphate Feed			Flouride Feed		Operator
Date	Time	Reading	Pumpage	Reading	Hours	Scale	lbs Used	Free	Scale	lbs Used	PO4 mg/L	Scale	lbs Used	Initials
30-Jun	07:15	348396		7781.68		141.00			72			367.30		KL
1-Jul	08:10	348487	89	7783.78	2.04	140.00	1.0	1.72	69	8.00	1.37	364.80	2.40	KL
2-Jul	08:05	348576	97	7785.82	2.27	139.00	1.0	0.46	61	7.00	1.47	362.40	2.80	KL
3-Jul	07:55	348673	98	7788.09	2.24	138.00	1.0	0.89	54	6.00	1.16	359.60	2.80	KL
4-Jul	07:05	348771	92	7790.33	2.13	137.00	1.0	0.67	50*100	7.00	1.99	356.80	3.10	KL
5-Jul	08:15	348863	43	7792.46	1.01	136.00	0.0	0.39	93	1.00	1.78	353.70	1.20	JS
6-Jul	07:35	348906	66	7793.47	1.51	136.00	3.0	0.51	92	3.00	1.48	352.50	1.70	JS
7-Jul	07:15	348972	67	7794.98	1.52	133.00	0.0	0.22	89	6.00	1.76	350.80	2.30	KL
8-Jul	08:10	349039	72	7796.5	1.68	133*160	1.0	0.36	83	4.00	1.23	348.5*488.7	1.00	JS
9-Jul	08:50	349111	88	7798.18	1.53	159.00	1.0	1.22	79	5.00	2.00	437.70	2.00	JS
10-Jul	08:35	349199	61	7799.71	1.82	158.50	0.5	0.96	74	5.00	1.12	435.70	2.90	JS
11-Jul	08:00	349260	62	7801.53	1.45	158.00	1.0	1.13	69	5.00	1.27	432.80	1.70	JS
12-Jul	07:20	349322	71	7802.98	1.65	157.00	0.0	0.65	64*110	3.00	1.11	431.10	2.10	JS
13-Jul	07:55	349393	79	7804.63	1.92	157.00	1.0	0.69	107	7.00	1.19	429.00	2.40	JS
14-Jul	08:35	349472	69	7806.55	1.49	156.00	0.0	0.65	100	1.00	1.34	426.60	2.20	JS
15-Jul	09:30	349541	44	7808.04	1.02	156.00	1.0	0.47	99	2.00	1.55	424.40	1.50	KL
16-Jul	07:05	349585	66	7809.06	1.52	155.00	0.0	0.91	97	6.00	1.37	422.90	2.00	KL
17-Jul	07:45	349651	67	7810.58	1.52	155.00	2.0	0.78	91	4.00	2.12	420.90	2.00	KL
18-Jul	07:55	349718	73	7812.1	1.66	153.00	0.0	0.52	87	5.00	1.31	418.90	2.10	JS
19-Jul	09:10	349791	72	7813.76	1.66	153.00	0.0	1.44	82	5.00	0.92	416.80	2.30	JS
20-Jul	08:25	349863	72	7815.42	1.69	153.00	2.5	1.01	77	4.00	1.04	414.50	1.90	JS
21-Jul	08:30	349935	68	7817.11	1.56	150.50	1.5	2.13	73	5.00	2.00	412.60	2.10	JS
22-Jul	08:48	350003	68	7818.67	1.56	149.00	1.0	1.67	68	4.00	2.12	410.50	2.30	JS
23-Jul	08:45	350071	69	7820.23	1.58	148.00	2.0	1.84	64	5.00	2.02	408.20	2.10	JS
24-Jul	08:55	350140	67	7821.81	1.53	146.00	1.0	2.19	59	5.00	1.99	406.10	1.50	JS
25-Jul	07:30	350207	45	7823.34	1.11	145.00	2.0	1.55	54*100	3.00	1.30	404.60	1.70	JS
26-Jul	07:35	350252	65	7824.45	1.43	143.00	1.0	1.56	97	5.00	1.31	402.90	1.90	JS
27-Jul	06:40	350317	68	7825.88	1.54	142.00	2.0	1.59	92	4.00	1.34	401.00	2.00	KL
28-Jul	08:50	350385	70	7827.42	1.6	140.00	2.0	2.11	88	5.00	1.11	399.00	1.80	JS
29-Jul	08:15	350455	65	7829.02	1.49	138.00	1.0	1.97	83	3.00	2.07	397.20	1.90	JS
30-Jul	06:50	350520	68	7830.51	1.49	137.00	2.0	2.18	80	1.00	2.12	395.30	2.10	KL
31-Jul	08:00	350588	89	7832	2.13	135.00	3.0	1.86	79	6.00	1.83	393.20	2.90	KL
1-Aug	08:10	350677		7834.13		132.00			73			390.3		JS
TOT			2101					36.30			47.79			
AVE			70					1.17			1.54			
MAX			98					2.19			2.12			
MIN			43					0.22			0.92			

SIGNATURE: Ion Stear
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VILLAGE OF POPLAR GROVE - SOUTH
FOR THE MONTH OF July 2022
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

IL0070300
MONTHLY OPERATING REPORT

		Flow Meter		Hour Meter Well 5		Hour Meter Well 6		Chlorine Feed			Phosphate Feed			Flouride Feed		Operator
Date	Time	Reading	Pumpage	Reading	Hours	Reading	Hours	Scale	lbs Used	Free	Scale	lbs Used	PO4 mg/L	Scale	lbs Used	Initials
30-Jun	08:00	559779		3721.8		4560.20		107.00			92			381.40		KL
1-Jul	07:30	559951	150	3724.5	2.4	4560.20	0	105.00	3.0	1.65	84	6.00	0.87	377.60	3.20	KL
2-Jul	07:40	560101	171	3726.9	2.7	4560.20	0	102.00	3.0	1.19	78	8.00	1.32	374.40	3.40	KL
3-Jul	08:20	560272	165	3729.6	2.7	4560.20	0	99.00	2.0	1.03	70	10.00	1.31	371.00	3.60	KL
4-Jul	07:18	560437	123	3732.3	1.8	4560.20	0	97.00	3.0	1.20	60	6.00		367.40	2.40	KL
5-Jul	09:10	560560	109	3734.1	1.8	4560.20	0	94.00	0.0	0.69	54	6.00	1.13	365.00	2.40	JS
6-Jul	09:05	560669	88	3735.9	1.4	4560.20	0	94.00	1.0	0.63	48*100	2.00	0.43	362.60	2.00	JS
7-Jul	08:30	560757	106	3737.3	1.7	4560.20	0	93.00	2.0	1.17	98	6.00	0.72	360.60	2.20	KL
8-Jul	07:08	560863	103	3739	1.6	4560.20	0	91*160	0.5	1.18	92	7.00	1.12	358.4*455.14	1.54	JS
9-Jul	09:20	560966	105	3740.6	1.7	4560.20	0	159.50	1.5	1.12	85	5.00	1.00	453.60	2.40	JS
10-Jul	09:05	561071	149	3742.3	2.3	4560.20	0	158.00	3.0	1.67	80	8.00	0.86	451.20	3.00	JS
11-Jul	09:00	561220	95	3744.6	1.5	4560.20	0	155.00	2.0	1.96	72	6.00	1.05	448.20	2.20	JS
12-Jul	08:25	561315	139	3746.1	2.2	4560.20	0	153.00	1.0	1.45	66	7.00	1.08	446.00	3.00	JS
13-Jul	08:40	561454	112	3748.3	1.8	4560.20	0	152.00	0.0	1.48	59	7.00	0.54	443.00	2.20	JS
14-Jul	07:00	561566	132	3750.1	2	4560.20	0	152.00	5.0	1.30	52	4.00	0.98	440.80	3.00	JS
15-Jul	08:45	561698	69	3752.1	1.1	4560.20	0	147.00	1.0	1.48	48*100	2.00	1.12	437.80	1.20	KL
16-Jul	07:25	561767	104	3753.2	1.7	4560.20	0	146.00	0.0	1.19	98	8.00	1.96	436.60	2.40	KL
17-Jul	08:00	561871	128	3754.9	2	4560.20	0	146.00	2.0	1.44	90	6.00	1.48	434.20	3.00	KL
18-Jul	09:05	561999	114	3756.9	1.8	4560.20	0	144.00	2.0	1.25	84	5.00	1.06	431.20	2.20	JS
19-Jul	07:20	562113	111	3758.7	2.1	4560.20	0	142.00	2.0	1.52	79	8.00	1.05	429.00	2.60	JS
20-Jul	09:15	562224	132	3760.8	1.7	4560.20	0	140.00	1.0	1.31	71	6.00	0.89	426.40	2.60	JS
21-Jul	07:00	562356	125	3762.5	2	4560.20	0	139.00	1.5	1.22	65*100	6.00	1.15	423.80	2.60	JS
22-Jul	07:05	562481	104	3764.5	1.6	4560.20	0	137.50	2.5	1.48	94	6.00	1.54	421.20	1.60	JS
23-Jul	08:15	562585	83	3766.1	1.3	4560.20	0	135.00	2.0	1.17	88	4.00	1.09	419.60	2.40	JS
24-Jul	09:20	562668	125	3767.4	2	4560.20	0	133.00	1.0	1.11	84	8.00	1.11	417.20	2.60	JS
25-Jul	08:45	562793	86	3769.4	1.4	4560.20	0	132.00	1.0	0.99	76	4.00	0.95	414.60	1.60	JS
26-Jul	08:25	562879	108	3770.8	1.7	4560.20	0	131.00	2.0	1.21	72	4.00	1.16	413.00	2.40	JS
27-Jul	07:15	562987	126	3772.5	1.9	4560.20	0	129.00	2.0	1.54	68	9.00	1.26	410.60	2.60	KL
28-Jul	07:10	563113	105	3774.4	1.7	4560.20	0	127.00	2.0	1.52	59	6.00	0.98	408.00	2.20	JS
29-Jul	07:10	563218	123	3776.1	1.9	4560.20	0	125.00	1.0	0.79	53	5.00	1.00	405.80	2.60	JS
30-Jul	09:00	563341	96	3778	1.5	4560.20	0	124.00	2.0	1.68	48*100	2.00	1.37	403.20	2.20	KL
31-Jul	08:30	563437	136	3779.5	2.2	4560.20	0	122.00	2.0	1.42	98	9.00	1.27	401.00	3.00	KL
1-Aug	09:10	563573		3781.7		4560.20		120.00			89			398.00		JS
TOT			3486				0			40.04			32.85			
AVE			116				0			1.29			1.10			
MAX			171				0			1.96			1.96			
MIN			69				0			0.63			0.43			

SIGNATURE: Jon Stear
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VILLAGE OF POPLAR GROVE - NORTH
FOR THE MONTH OF July 2022
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

IL0070150
MONTHLY OPERATING REPORT

		Flow Meter		Hour Meter Well 2		Hour Meter Well 3		Chlorine Feed			Phosphate Feed			Flouride Feed		Operator
Date	Time	Reading	Pumpage	Reading	Hours	Reading	Hours	Scale	lbs Used	Free	Scale	lbs Used	PO4 mg/L	Scale	lbs Used	Initials
30-Jun	07:00	331103754.5		10062.1		27695.20		107.00			68			24.00		KL
1-Jul	09:00	331330859.7	148178.2	10062.1	0	27706.60	7.40	103.00	2.0	1.20	59	9.00	1.45	23.00	0	KL
2-Jul	07:00	331479037.9	212092	10062.1	0	27714.00	10.60	101.00	2.0	1.27	50	9.00	1.03	23.00	1	KL
3-Jul	07:45	331691129.9	201925.4	10062.1	0	27724.60	10.10	99.00	2.0	1.10	41*100	2.00	1.17	22.00	1	KL
4-Jul	06:55	331893055.3	143393	10062.1	0	27734.70	7.10	97.00	1.0	1.46	98	2.00	1.35	21.00	0.25	KL
5-Jul	07:45	332036448.3	151202.8	10062.1	0	27741.80	7.60	96.00	2.0	1.11	96	0.00	1.36	20.75	0.75	JS
6-Jul	07:15	332187651.1	129422.8	10062.1	0	27749.40	6.40	94.00	1.0	0.98	96	4.00	0.26	20.00	0	JS
7-Jul	06:15	332317073.9	136710.8	10062.1	0	27755.80	6.90	93.00	1.0	1.25	92	2.00	0.69	20.00	1	KL
8-Jul	08:50	332453784.7	131996.7	10062.1	0	27762.70	6.50	92*160	0.0	0.97	90	5.00	0.47	19*51	0.5	JS
9-Jul	08:30	332585781.4	185528.3	10062.1	0	27769.20	9.20	160.00	2.0	1.37	85	4.00	0.99	50.50	0.5	JS
10-Jul	08:20	332771309.7	151532.1	10062.1	0	27778.40	7.60	158.00	1.0	0.84	81	6.00	0.62	50.00	0.75	JS
11-Jul	07:30	332922841.8	166787	10062.1	0	27786.00	8.30	157.00	3.0	1.24	75	5.00	0.49	49.25	0.75	JS
12-Jul	07:00	333089628.8	144070.8	10062.1	0	27794.30	7.20	154.00	0.0	1.32	70*114	5.00	0.83	48.50	0.5	JS
13-Jul	07:25	333233699.6	183375.2	10062.1	0	27801.50	9.10	154.00	4.0	2.07	109	7.00	0.69	48.00	1	KL
14-Jul	09:10	333417074.8	135453.3	10062.1	0	27810.60	6.80	150.00	2.0	0.52	102	4.00	1.09	47.00	1	JS
15-Jul	09:15	333552528.1	119675.2	10062.1	0	27817.40	6.00	148.00	1.0	2.10	98	6.00	0.83	46.00	0	KL
16-Jul	06:55	333672203.3	121239.6	10062.1	0	27823.40	6.30	147.00	2.0	2.05	92	3.00	0.93	46.00	1	KL
17-Jul	07:35	333793442.9	186515.3	10062.1	0	27829.70	9.00	145.00	3.0	1.71	89	6.00	0.79	45.00	1	KL
18-Jul	07:25	333979958.2	170258.6	10062.1	0	27838.70	8.50	142.00	3.0	1.61	83	6.00	1.31	44.00	0.5	JS
19-Jul	08:50	334150216.8	149578.2	10062.1	0	27847.20	7.40	139.00	2.0	1.74	77	4.00	1.07	43.50	0.5	JS
20-Jul	07:55	334299795	155653.2	10062.1	0	27854.60	7.70	137.00	1.0	1.19	73	6.00	1.04	43.00	1	JS
21-Jul	09:05	334455448.2	164815.3	10062.1	0	27862.30	8.30	136.00	3.0	1.43	67	5.00	0.80	42.00	1	JS
22-Jul	07:00	334620263.5	142911.6	10062.1	0	27870.60	7.10	133.00	1.0	1.29	62	5.00	1.04	41.00	1	KL
23-Jul	09:05	334763175.1	154000.7	10062.1	0	27877.70	7.70	132.00	2.0	1.37	57	6.00	1.20	40.00	0.25	JS
24-Jul	08:35	334917175.8	146475.9	10062.1	0	27885.40	7.30	130.00	2.0	1.05	51	5.00	0.86	39.75	0.75	JS
25-Jul	07:15	335063651.7	121266.3	10062.1	0	27892.70	6.10	128.00	1.5	1.09	46*100	2.00	0.67	39.00	1	JS
26-Jul	07:05	335184918	159762.1	10062.1	0	27898.80	7.90	126.50	2.5	1.02	98	6.00	1.48	38.00	0.5	JS
27-Jul	06:30	335344680.1	159798.8	10062.1	0	27906.70	8.00	124.00	2.0	1.14	92	5.00	0.78	37.50	0.5	KL
28-Jul	09:15	335504478.9	156769.6	10062.1	0	27914.70	7.90	122.00	2.0	1.20	87	6.00	0.45	37.00	0.75	JS
29-Jul	08:40	335661248.5	127942.1	10062.1	0	27922.60	6.30	120.00	2.0	1.06	81	3.00	0.84	36.25	1	JS
30-Jul	06:35	335789190.6	155136.9	10062.1	0	27928.90	7.80	118.00	2.0	1.11	78	7.00	0.94	35.25	0.25	KL
31-Jul	07:00	335944327.5	199451.5	10062.1	0	27936.70	10.00	116.00	2.0	1.82	71	8.00	1.07	35.00	1	KL
1-Aug	07:00	336143779		10062.1		27946.7		114.0			63			34		JS
TOT			4613468				230			40.68			28.59			
AVE			153782				8			1.31			0.92			
MAX			212092				11			2.10			1.48			
MIN			119675				6			0.52			0.26			

SIGNATURE: _____ Jon Stear
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VILLAGE OF POPLAR GROVE **DAILY DISTRIBUTION MONITORING REPORT**
FOR THE MONTH OF July 2022
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

	North System (Wells 2 & 3)				West System (Well 4)				South System (Wells 5 & 6)					Flouride Analysis				
Date	Site #	Free Cl_2	Total Cl_2	PO_4	Site #	Free Cl_2	Total Cl_2	PO_4	Site #	Free Cl_2	Total Cl_2	PO_4	Operator Initials	1.0 mg.L Standard	Well #2	Well #3	Well #4	Well#5-6
1	Tower	1.2		1.45	Garage	0.38		1.84	Tower	1.13		1.15	KL			0.68	0.43	0.29
2																0.37	0.40	0.28
3																0.36	0.38	0.27
4	Tower	1.46		1.35	Tower	0.59		1.86	Tower	1.2		1.27	KL			0.36	0.29	0.29
5	Elm	0.53		1.61	Gas Station	0.22		1.56	Tower	0.78		1.18	JS			0.56	0.26	0.27
6	Tower	0.98		0.26	Oak lawn	0.48		1.15	Tower	0.75		1.18	JS			0.44	0.29	0.25
7	Tower	1.25		0.69	Tower	0.36		1.7	Tower	0.9		1.15	KL			0.38	0.96	0.58
8	Village	0.37		1.86	Garage	0.24		1.62	Tower	0.73		1.2	JS			0.46	0.77	0.63
9																0.61	1.10	0.66
10																0.90	0.67	0.43
11	Elm	0.86		1	Gas Station	0.25		1.34	Tower	1.02		1.28	JS			0.95	0.72	0.59
12	Tower	0.8		1.32	Tower	0.62		1.18	Tower	1.12		1.28	JS			0.94	0.75	0.61
13	Tower	2.07		0.69	Oak Lawn	0.45		1.35	Tower	1.09		1.32	JS			0.35	0.81	0.72
14	Village	0.14		1.8	Garage	0.2		1.52	Tower	1.1		1.36	JS			0.94	0.78	0.72
15	Tower	2.1		0.83	Tower	0.47		1.55	Tower	0.93		1.3	KL			1.10	0.81	0.70
16																1.20	1.20	2.00
17																1.20	1.00	0.62
18	Elm	0.99		1.18	Gas Station	0.29		1.4	Tower	0.97		1.37	JS			1.20	0.83	0.76
19	Tower	1.74		1	Tower	1.68		0.98	Tower	0.95		1.45	JS			1.30	0.79	0.80
20	Tower	1.19		1.04	Tower	1.05		1.27	Tower	0.94		1.35	JS			1.00	0.83	0.64
21	Tower	1.43		0.81	Garage	0.54		1.67	Tower	0.86		1.48	JS			1.10	1.70	0.60
22	Tower	1.29		1.04	Oak Lawn	0.67		0.51	Tower	0.75		1.36	JS			0.90	0.70	0.60
23																0.97	0.98	0.65
24																1.00	1.30	0.79
25	Elm	0.66		1.15	Oak Lawn	0.99		1.02	Tower	0.81		1.34	JS			1.00	0.67	0.61
26	Tower	1.02		1.48	Gas Station	0.47		1.38	Tower	0.69		1.21	JS			1.30	0.70	0.58
27	Tower	1.14		0.78	Garage	0.94		1.84	Tower	0.78		1.42	KL			0.63	1.10	0.78
28	Village	0.31		1.61	Oak L. Wel	0.44		0.74	Tower	0.81		1.48	JS			0.78	0.79	0.72
29	Tower	1.06		0.84	Tower	1.8		1.8	Tower	0.66		1.35	JS			1.00	1.40	0.74
30																1.20	1.40	0.74
31																0.80	1.10	0.68

Signature: Jon Stear
PHONE: 815-224-1650

McMAHON
ENGINEERS ARCHITECTS

To: **The Village President and Board of Trustees**

From: **Chris Dopkins, P.E., Village Engineer**

Re: **Engineering Report – August 2022 Activity**

Date: **September 18, 2022**

Please allow this memorandum to provide a brief summary of major activity over the past month that involves the engineering department:

- **Public Works Building:** Waiting for corn to be removed so that site survey can commence (corn was out and site was surveyed late last week).
- **South WWTP - Phosphorus Planning:** We presented findings to the Board in July. As of the date of this memorandum we have not fielded questions or concerns from Staff, Operations or Trustees. A resolution formally approving the plan will be presented for Board consideration at the September 21st Board meeting.
- **Drainage Checks:** Our office performed drainage reviews of lots in Burled Wood, Concord Crossings and Olson Woods subdivisions.
- **Sherman Oaks Drainage Improvements:** Construction of the improvements occurred in mid-August. Project is substantially complete and is functioning well.
- **Park Street Sanitary Sewer Improvements:** We met on site with NICOR representatives and Stenstrom. Field work should be complete before the end of September.
- **Oak Lawn Mobile Home Park:** The Park has connected to the Village's public water system. We will follow up with the Park in late September to ensure that the well has been properly abandoned.
- **NWWTP Permit Application:** The permit renewal application was submitted to IEPA.
- **2022 Pavement Maintenance Program:** Contractor completed work in early August. We are working with the contractor to finalize quantities and processing of the final pay application.
- **2023 CIP Planning:** DPW Howe and myself have already begun to initiate planning efforts for the 2023 Road Improvements. We think there is opportunity to partner with the County on the State Street project which will be beneficial to all parties.

I Rosalia Moscato approve of the closure on Main Street in Poplar Grove, IL. between State Street and Summit Street on Sunday, September 25, 2022 from 8:00 am to 4:00 pm.

Rosalia Moscato
Signature

7-17-22
Date

I Kim Krawczyk approve of the closure on Main Street in Poplar Grove, IL. between State Street and Summit Street on Sunday, September 25, 2022 from 8:00 am to 4:00 pm.

Kim Krawczyk
Signature

7-12-22
Date

JUDY FIENE
630-209-0678

Poplar Grove

I Zulma Rodriguez approve of the closure on Main Street in Poplar Grove, IL. between State Street and Summit Street on Sunday, September 25, 2022 from 8:00 am to 4:00 pm.

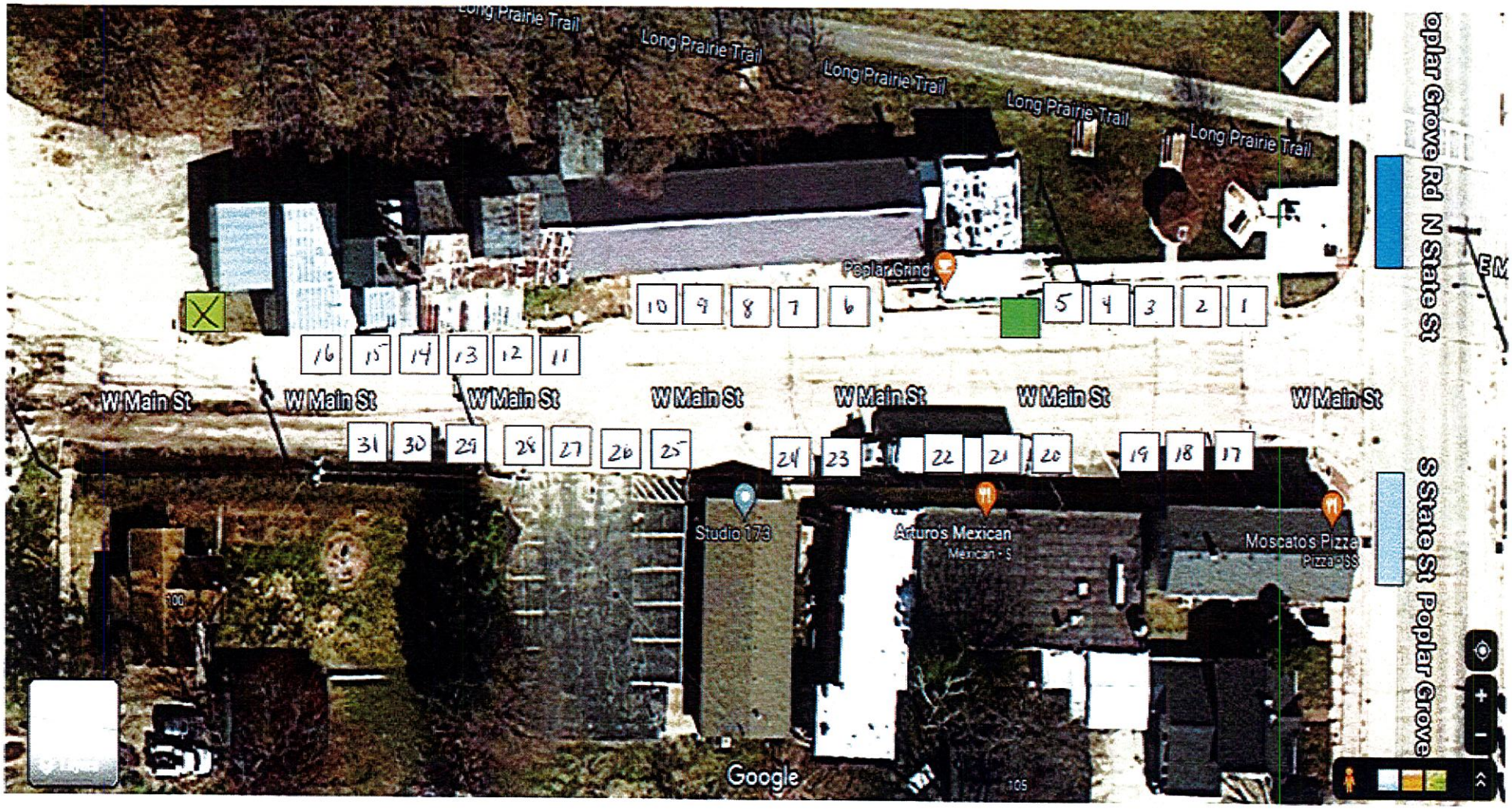
Zulma Rodriguez
Signature

7/12/2022
Date

I Angela Reinert (Studio 173) approve of the closure on Main Street in Poplar Grove, IL. between State Street and Summit Street on Sunday, September 25, 2022 from 8:00 am to 4:00 pm.

Angela Reinert
Signature

8-30-2022
Date


Long Prairie Trail
Long Prairie Trail
Long Prairie Trail
Long Prairie Trail
Long Prairie Trail
Poplar Grove Rd N State St
Poplar Grind
10 9 8 7 6
5 4 3 2 1
16 15 14 13 12 11
W Main St
W Main St
W Main St
W Main St
W Main St
W Main St
W Main St
31 30 29 28 27 26 25
24 23 22 21 20 19 18 17
Studio 173
Arturo's Mexican
Mexican · $
Moscato's Pizza
Pizza · $$
S State St Poplar Grove
Google

RESOLUTION NUMBER: _2022-35_____

A RESOLUTION OF THE VILLAGE OF POPLAR GROVE, ILLINOIS TO AUTHORIZE THE VILLAGE PRESIDENT, THE VILLAGE CLERK AND THE VILLAGE PUBLIC WORKS DIRECTOR TO APPROVE APPLICATIONS FOR BLOCK PARTIES/COMMUNITY EVENTS

WHEREAS, the Village of Poplar Grove, Illinois ("Village") regularly receives requests for block parties and community events which on occasion require a street closure; and

WHEREAS, the Village realizes that Village staff largely makes the determination whether such applications comply with the Village code of ordinances and makes arrangements for any street closures; and

WHEREAS, the Village realizes that bringing such applications for block parties/community events before the Village Board for approval is unnecessary; and

WHEREAS, the required signatures by the Village President, the Village Clerk and the Village Public Works Director can be affixed to the application for block parties/community events at their convenience.

NOW THEREFORE, BE IT RESOLVED by the Village Board of Trustees of the Village of Poplar Grove, Illinois as follows:

1. The above recitals are incorporated herein and made a part hereof.

2. Applications for block parties and/or community events in the Village of Poplar Grove shall be reviewed for conformance by the Village Clerk and the Public Works Director.

3. Following review of the application, if the application for block party is approved by the Village Clerk, the Village Public Works Director, and the Village President, the Village Clerk and the Village Public Works Director are thereby authorized to approve the application for block party without further action of the Village Board. This authorization shall include closure of any public street or public way that might be required for the Block Party/Community Event.

PASSED UPON MOTION BY _____

SECONDED BY _____

BY ROLL CALL VOTE THIS _____DAY OF _____, 2022

AS FOLLOWS:

VOTING "AYE": _____

_____

VOTING "NAY": _____

_____

ABSENT, ABSTAIN, OTHER _____

_____

APPROVED _____, 2022

_____
VILLAGE PRESIDENT

ATTEST:

_____
VILLAGE CLERK

McMAHON
ENGINEERS ARCHITECTS

To: **The Village President and Board of Trustees**

From: **Chris Dopkins, P.E. Village Engineer**

Re: **Phosphorous Discharge Optimization Plan – South WWTP**

Date: **September 18, 2022**

Please allow this to follow up the discussions of the August 17th Board meeting. As noted in our August 14th memorandum (copy of the memorandum and study are attached), we have allowed a month to pass so that Staff and Elected Officers have the opportunity to review the study and vet any questions or concerns. We have not received questions/concerns as of the date of this memorandum and therefore I have attached a resolution that formally approves the study for your consideration. After passage, we will send the study to IEPA for its review and comment.

I look forward to discussing this item with the Board and in the meantime please do not hesitate to contact me at 636-9590 with any questions. Thank you.

RESOLUTION 22-_36__

A RESOLUTION OF THE VILLAGE OF POPLAR GROVE TO APPROVE ITS PHOSPHORUS DISCHARGE FEASIBILITY STUDY

WHEREAS, the Village of Poplar Grove, Illinois ("Village") owns and operates a Wastewater Treatment Facility ("WTF:) that has a treatment capacity of 1,000,000 million gallons per day ("MGD"); and

WHEREAS, IEPA requires all WTFs with treatment capacities of 1,000,000 MGD or more to prepare and submit plans to remove phosphorus; and

WHEREAS, the Village has prepared and reviewed an engineering report entitled "Wastewater Treatment Facility Phosphorus Discharge Feasibliity Study"; and

WHEREAS, the Village has determined that it is in the best interest of the Village and its citizens to formally adopt said report as set forth herein.

NOW THEREFORE BE IT RESOLVED by the President and Board of Trustees of the Village of Poplar Grove, Boone County, Illinois, that:

1. The above recitals are incorporated herein and made part hereof.

2. The Village formally approves the engineering report entitled "Wastewater Treatment Facility Phosphorus Discharge Feasibliity Study" and authorizes the Village Engineer to submit the study to IEPA for agency review and approval.

PASSED UPON MOTION BY _____

SECONDED BY _____

BY ROLL CALL VOTE THIS _____ DAY OF _____, 2022

AS FOLLOWS:

VOTING "AYE": _____

_____

VOTING "NAY": _____

_____

ABSENT, ABSTAIN, OTHER _____

APPROVED_____, 2022.

_____
VILLAGE PRESIDENT

ATTEST:

VILLAGE CLERK:_____

McMAHON
ENGINEERS ARCHITECTS

To: **The Village President and Board of Trustees**

From: **Chris Dopkins, P.E. Village Engineer**

Re: **Phosphorous Discharge Optimization Plan – South WWTP**

Date: **August 14, 2022**

As we have discussed, there has been concerted effort by the Federal EPA to reduce nutrients (Nitrogen, Potassium and Phosphorus) from being discharged into the environment. This is largely in response to Gulf Hypoxia and observed algae growth within rivers, lakes and streams in the Mississippi River Basin. As you will recall, during a routine review of the permit for the SWWTP, Test, Inc. noted that the permit contains two special conditions which are outlined below.

SPECIAL CONDITION 18. The Permittee shall develop and submit to the Agency a Phosphorus Discharge Optimization Plan within twenty-four months of the effective date of this permit. The plan shall include a schedule for the implementation of these optimization measures. Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year beginning 12 months from effective date of the permit. 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 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:

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

B. WWTF effluent reduction measures.
   1. Reduce phosphorus discharges by optimizing existing treatment processes.
      a. Adjust the solids retention time for either nitrification, denitrification, or biological phosphorus removal.
      b. Adjust aeration rates to reduce dissolved oxygen and promote simultaneous nitrification-denitrification.
      c. Add baffles to existing units to improve microorganism conditions by creating divided anaerobic, anoxic, and aerobic zones.
      d. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
      e. Minimize impact on recycle streams by improving aeration within holding tanks.
      f. Reconfigure flow through existing basins to enhance biological nutrient removal.

SPECIAL CONDITION 19. The Permittee shall, within twenty-four months of the effective date of this permit, prepare and submit to the Agency a feasibility study that identifies the method, timeframe, and costs of reducing phosphorus levels in its discharge to a level consistently meeting a potential future effluent limit of 0.5 mg/L and 0.1 mg/L. The study shall evaluate the construction and O & M costs of the application of these limits on a monthly, seasonal and annual average basis.

After review, the Village authorized staff to proceed with the optimization plan and feasibility study in December of last year. These studies are in essence a miniature version of a facility plan where just about any feasible technology that can be used to limit the discharge of phosphorus is evaluated. I have attached a draft of the plan for review, and I will make a short presentation of the findings at the August 17th meeting. Well then allow 30 days for Trustee and Staff review, and hopefully the Village will formally adopt the study in September where it will then be sent to IEPA for Agency review and comment.

I look forward to discussing this item with the Board and in the meantime please do not hesitate to contact me at 636-9590 with any questions. Thank you.

Engineering Report

Wastewater Treatment Facility
Phosphorus Discharge Feasibility Study

Prepared for The

VILLAGE OF POPLAR GROVE
BOONE COUNTY | ILLINIOS

VILLAGE OF POPLAR GROVE Illinois
A Great Place to Call Home

JULY 2022

McM. No. P0013 07-21-00148.02

McMAHON ENGINEERS ARCHITECTS
McMAHON ASSOCIATES, INC.
1700 HUTCHINS RD | MACHESNEY PARK, IL 61115
PH 815.636.9590 FX 815.636.9591 MCMGRP.COM

Engineering Report

Wastewater Treatment Facility

Phosphorus Discharge Feasibility Study

Prepared for The

VILLAGE OF POPLAR GROVE
BOONE COUNTY | ILLINIOS

Prepared By

McMAHON ASSOCIATES, INC.
MACHESNEY PARK, ILLINOIS

JULY 2022
McM. No. P0013 07-21-00148.02

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Phosphorus Discharge Feasibility Study

Prepared for The

VILLAGE OF POPLAR GROVE
BOONE COUNTY | ILLINIOS

Prepared By

McMAHON ASSOCIATES, INC.
MACHESNEY PARK, ILLINOIS

JULY 2022
McM. No. P0013 07-21-00148.02

I. INTRODUCTION

The Village of Poplar Grove owns and operates two (2) wastewater treatment facilities, the North and South Plants. The Village of Poplar Grove South Wastewater Treatment Plant (SWWTP) discharges treated effluent to Beaver Creek, a tributary to Meander Creek, under its National Pollution Discharge Elimination System (NPDES) Permit No. IL0071447.

The current NPDES Permit, which was issued on September 26, 2019 (effective October 1, 2019), contains an effluent limit for total phosphorus of 1.0 mg/L (monthly average), which will be followed by potential future effluent limits of 0.5 mg/L and 0.1 mg/L (monthly average).

The current NPDES Permit contains a Compliance Schedule, which requires submittal of a Feasibility Study by October 1, 2021, that identifies the method, timeframe, and costs of reducing phosphorus levels in its discharge to a level consistently meeting potential future effluent limits of 0.5 mg/L and 0.1 mg/L.

II. WASTEWATER TREATMENT FACILITY DESCRIPTION

A Process Flow Schematic of the Village of Poplar Grove South Wastewater Treatment Plant (SWWTP) is shown on Figure 1.

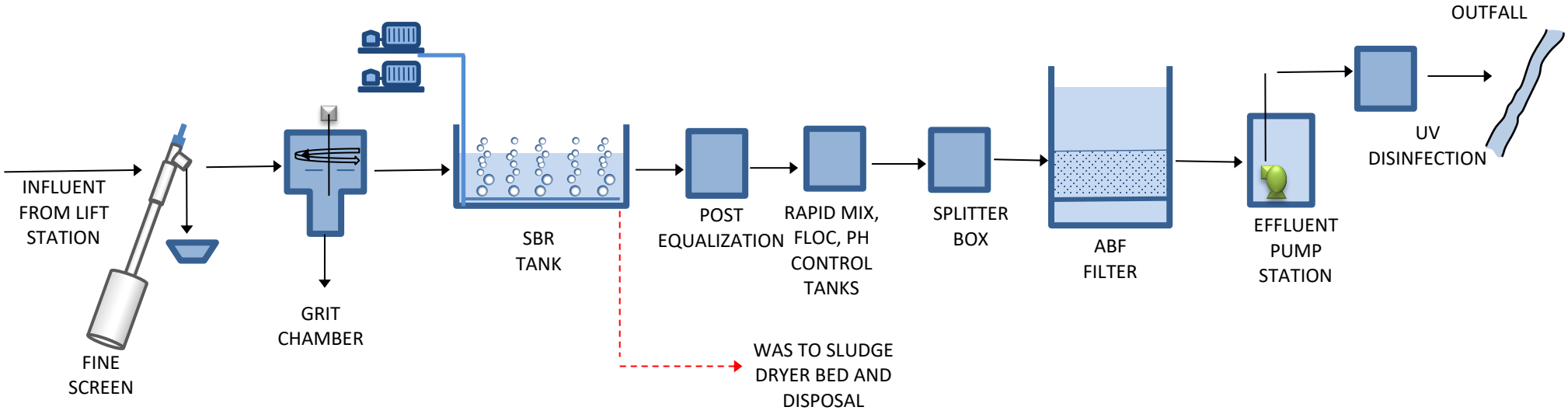
The Village of Poplar Grove SWWTP includes the following major unit processes:

- Influent Pumping

- Screening and Grit Removal
- Sequencing Batch Reactors (SBR)
- Post Equalization
- ABF Sand Filter
- UV Disinfection
- Aerobic Digestion
- Sludge Dryer Bed

The influent design criteria for the SWWTP are summarized below:

- Average Flow, mgd 1.0
- Maximum Flow, mgd 2.5
- Average BOD, ppd Unknown – Poplar Grove Unable to Provide Data
- Average TSS, ppd Unknown – Poplar Grove Unable to Provide Data
- Average TP, ppd Unknown – Poplar Grove Unable to Provide Data



McMAHON ENGINEERS ARCHITECTS

Figure 1
SOUTH WATERWATER TREATMENT PLANT
PROCESS FLOW SCHEMATIC
VILLAGE OF POPLAR GROVE, IL
McM. No. P0013 07-21-00148.02

III. WASTWATER TREATMENT FACILITY INFLUENT FLOWS AND LOADINGS

Influent flows and loadings from January 2019 through December 2021 are summarized in Table 1, below. For the 3-year period, the average influent flow was 0.214 mgd, which is 21% of the original WWTP average design flow capacity of 1.0 mgd. The average TSS, BOD and TP loadings from January 2019 through December 2021 is 409 lbs./day, 173 lbs./day and 9 lbs./day, respectively.

Table 1
Summary of WWTP Influent Flows and Loadings
2019 through 2021

VILLAGE OF POPLAR GROVE
Wastewater Treatment Facility – Discharge Feasibility Study

Parameters	2019	2020	2021	Average	Maximum
Flow, mgd					
Average	0.313	0.200	0.128	0.214	--
Max Month	0.448	0.317	0.211	--	0.448
Max Day	0.961	0.830	0.634	--	0.961
BOD_5, lbs./day					
Average	245	131	144	173	--
Max Month	345	167	188	--	345
Max Day	1,220	633	668	--	1,220
TP, lbs./day					
Average	13*	8	6	9	--
Max Month	16*	20	10	--	20
Max Day	20*	119	52	--	119
TSS, lbs./day					
Average	741	295	191	409	--
Max Month	1,394	540	319	--	1,394
Max Day	7,887	1,432	1,446	--	7,887

*Includes November through December 2019 data only.

IV. WASTEWATER TREATMENT FACILITY PERFORMANCE

Effluent flows and loadings from January 2019 through December 2021 are summarized in Table 2, below. The monthly effluent flows and loadings and discharge concentrations are summarized in Appendix I, Table I-1, attached.

The SWWTP has been able to maintain an average effluent phosphorus concentration of 0.43 mg/L from January 2019 through to December 2021. The SWWTP has been able to consistently meet a monthly average effluent concentration below 0.5 mg/L in 2019, 2020, and 2021, with the exception

of November 2020 through February 2021. The chemical pump was not functioning during this period, not allowing chemical to be delivered to the system, as needed.

Table 2
Wastewater Treatment Facility Performance – Effluent Discharge
2019 through 2021

VILLAGE OF POPLAR GROVE
Wastewater Treatment Facility – Discharge Feasibility Study

Parameters	2019	2020	2021	Average	Maximum
Flow, mgd					
Average	0.321	0.262	0.235	0.273	--
Max Month	0.439	0.357	0.359	--	0.439
Max Day	1.221	0.928	2.045	--	2.045
BOD_5, mg/L					
Average	1.50	3.43	3.07	2.67	--
Max Month	2.88	5.00	18.00	--	18.00
Max Day	6.00	5.00	18.00	--	18.00
TP, mg/L					
Average	0.25	0.55	0.48	0.43	--
Max Month	0.42	1.52	1.29	--	1.52
Max Day	1.03	2.22	2.83	--	2.83
TSS, mg/L					
Average	2.60	5.25	4.04	3.96	--
Max Month	4.69	7.07	5.83	--	7.07
Max Day	22.00	15.00	12.00	--	22.00
NH_3-N, mg/L					
Average	0.29	0.47	0.16	0.31	--
Max Month	1.44	2.45	0.39	--	2.45
Max Day	6.64	9.89	1.89	--	9.89
TKN, mg/L					
Average	0.72	1.79	0.92	1.14	--
Max Month	1.79	7.56	1.21	--	7.56
Max Day	1.79	12.20	1.33	--	12.20

V. PHOSPHORUS LOADINGS

Concentrations of phosphorus in raw municipal wastewater typically range from 4 to 15 mg/L. The usual forms of phosphorus in wastewater include Orthophosphate, Polyphosphate, and organic phosphorus, where organic phosphorus typically ranges from 25% to 33% of the total raw wastewater phosphorus and the remainder is inorganic, or a combination of Ortho and Polyphosphate.

Industrial wastes can either add, or in cases of a few phosphorus deficient discharges, dilute the total phosphorus in wastewater. Industrial wastes typically high in phosphorus include those generated from fertilizer production, meat processing, packing, milk processing, and food process wastes. It appears that there are no major industrial users contributing to the phosphorus load at the South WWTP. At this time, the phosphorus load seen in the influent SWWTP is primarily from domestic contributions only. The Village is using an orthophosphate product for water distribution system corrosion protection and is maintaining a constant dose around 0.8 to 1 mg/L.

VI. WWTP FEASIBILITY STUDY TO ACHIEVE 0.5 MG/L P

In addition to achieving biological phosphorus removal in the SBR tanks, the Village currently feeds alum to further achieve an average effluent phosphorus concentration of less than 0.5 mg/L. Approximately 27 gallons/month of alum is being dosed at the SWWTP. The current annual O&M expense for chemical addition is estimated at $37,000/year ($3,083/month).

We recommend the following additional items to enhance phosphorus removal in the SBR tanks:

- Installation of online monitoring analyzers for effluent ortho-phosphate to control the amount of alum being fed into the system.
- Modification of chemical feed location to ensure chemical is being fed to the SBR tanks at the end of the react phase.
- Conducting a complete bench scale testing of various chemical coagulants such as aluminum based and iron-based salt solution, to help determine achievable optimization P levels in the SWWTF, and to identify which coagulant provides the most efficient P removal in terms of dosing requirements and associated chemical costs.

VII. WWTP FEASIBIILTY STUDY TO ACHIEVE 0.1 MG/L P

It is very likely that the Village can reduce their effluent phosphorus discharge through optimization of their biological and chemical feed systems; however, it is unlikely that the chemical feed alone would allow the WWTP to consistently meet an effluent phosphorus limit of 0.1 mg/L. Tertiary treatment upgrades would likely be required to ensure the WWTP can consistently meet a future stringent NPDES permit effluent phosphorus limit. Therefore, the Village needs to further evaluate feasible treatment alternatives to meet a future phosphorus limit of 0.1 mg/L.

The following alternatives were evaluated for their ability to meet a future effluent phosphorus limit of 0.1 mg/L:

- Tertiary Treatment
  - Cloth Media Disk Filters
  - Continuously Backwashed Up-flow Sand filters

A. Preliminary Opinions of Cost Considerations

Preliminary Opinions of Capital and Operational Costs were developed for each treatment alternative for comparison purposes. Opinion of Capital Costs include equipment costs and construction/installation costs.

Opinion of annual costs include the costs necessary to operate the proposed tertiary treatment facilities. These costs include operation and maintenance (O&M), labor equipment parts, repairs and supply costs, chemical power, and fuel costs. The O&M costs are based upon the design criteria for each alternative and the personnel required for operating and maintaining these facilities.

It is important to note that improving solely the tertiary treatment process would be considered a small project in the way that there are not significant amounts of material involved. Small units tend to drive up unit prices, which makes it difficult to provide an accurate opinion of cost. The unit prices used in the cost estimates are what are considered conservative at the time of completing this report. Additionally, the market prices and availability are currently unstable, which adds to the difficulty of estimating project costs in advance.

The costs utilized in the analysis include the following:

- Electrical Cost $0.08 per kW hour
- Alum $3.69 per gallon
- Supplies and Parts 1% of equipment costs
- Replacement Fund 5% of equipment costs

Equipment vendor quotations were used for equipment capital costs. Mechanical, pipe and valve installation are estimated at 20% of the total equipment capital cost. Equipment installation is estimated at 40% of the total equipment capital cost. Electrical and controls are estimated at 10% of the total capital cost. General conditions are estimated at 10% of the subtotal cost. Contingency and engineering are estimated at 30% of the sum of the subtotal and general conditions cost.

B. Design Criteria

The following design criteria were used for sizing and evaluating the tertiary treatment options:

- Average Design Flow 1 mgd
- Max Flow 2.5 mgd
- Final Effluent TSS 4 mg/L
- Secondary Effluent Total Phosphorus with Chemical Addition 0.4 mg/L
- Final Effluent Total Phosphorus limit (Month Avg.) 0.1 mg/L

C. Cloth Media Disc Filter

A Cloth Media Disk Filtration System (e.g., Aqua Aerobic Systems (AASI), AquaDisc Cloth Media Filter) is a tertiary treatment process that utilizes a cloth filter media installed on multiple rotating disks. A schematic of the AASI Cloth Media Disk Filter is shown in Figure 2, below.

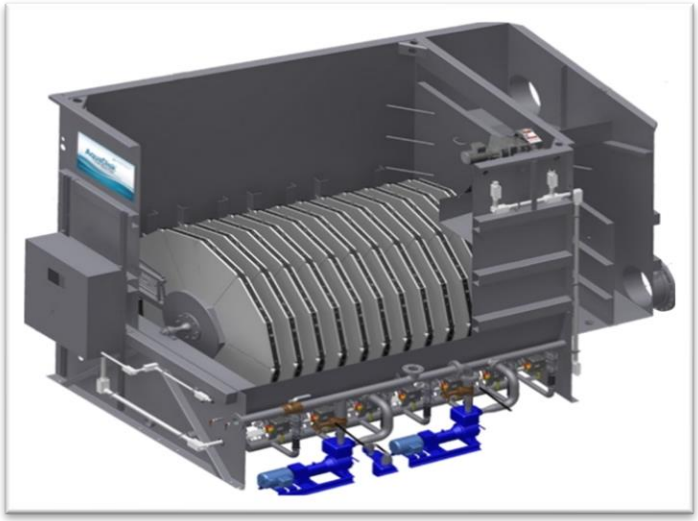


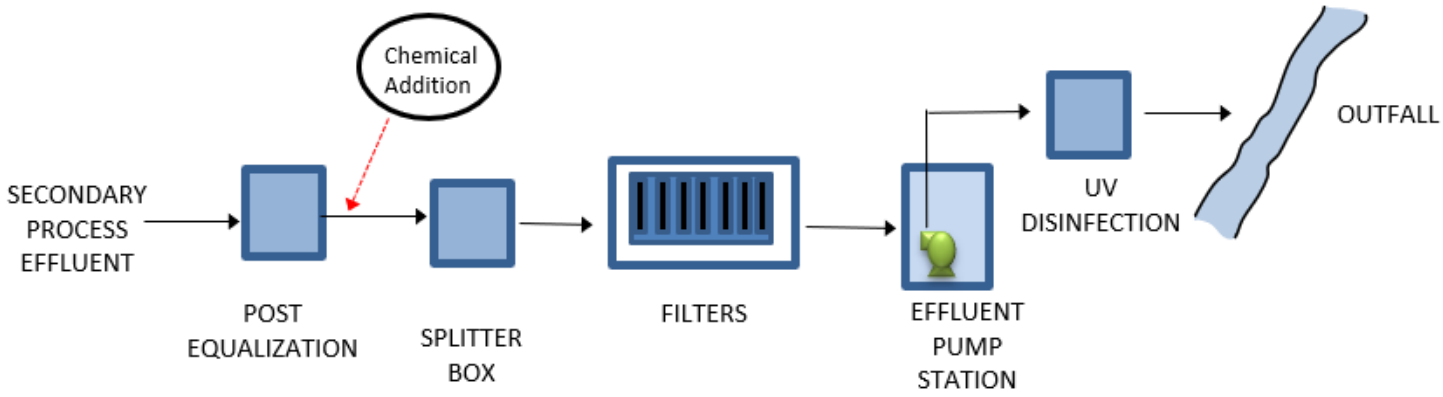
Figure 2: Aqua-Aerobic Systems AquaDisc Cloth Media Filter.

The disks can be installed in prefabricated steel or cast in place concrete tanks. During operation, chemically conditioned secondary effluent enters the filtration tank and passes through the cloth media filter, which provides a physical barrier for removing suspended solids. The filtered solids collect on the outer surface of the cloth media, forming a mat as filtrate flows through the disks. Heavier secondary effluent solids also settle to the bottom of the tank.

Flow through the disks is restricted as solids accumulate on the cloth media, causing the level in the tank to rise. At a predetermined setpoint level, a backwash cycle is initiated. During a backwash sequence, the disks rotate slowly by a chain gear drive. Backwash shoes in contact with the cloth media remove the filtered solids by vacuum pressure provided by a backwash pump. Settled solids on the bottom of the tank are removed on an intermittent basis by the backwash pump. The captured solids are returned to secondary treatment or solids handling.

Multi-point chemical addition for precipitation of phosphorus would be required to meet stringent effluent TP limits. A coagulant such as Ferric Chloride or Aluminum Sulfate (Alum), would be added to the SBR at the end of the react phase.

In this alternative, SBR effluent would flow to the post equalization basins then to the rapid mix, coagulant, and flocculation tanks were additional chemical coagulation and polymer would be dosed. Flow would then go through the disk filters and would discharge to the downstream process. A process flow schematic is shown in Figure 3, below.



McMAHON ENGINEERS ARCHITECTS

Figure 3
WATERWATER TREATMENT FACILITY
PROCESS FLOW SCHEMATIC - CLOTH MEDIA DISK FILTER
VILLAGE OF POPLAR GROVE, IL
McM. No. P0013 07-21-00148.02

Aqua-Aerobic Systems (AASI) was contacted to evaluate the feasibility of installing the cloth media filter system at the Village of Poplar Grove SWWTP. To treat an average flow of 1.0 mgd and a maximum flow of 2.5 mgd, two (2) eight-disk AquaDisc Cloth Media Filters are recommended. Each filter disk has an area of 53.8 ft^2, with a total filtration area of 860.8 ft^2. The system has been designed with an average hydraulic loading rate of 0.81 gpm/ft^2, a maximum hydraulic loading rate of 2.02 gpm/ft^2, and a solid loading rate of 0.72 lbs. TSS/day/ft^2. The solid's loading rate is based on a maximum flow rate of 2.5 mgd and a maximum TSS of 22 mg/L.

The recommendation is based upon the provision to maintain a satisfactory hydraulic surface loading rate with one (1) unit out of service. The resultant hydraulic loading rate at the maximum design flow with one unit out of service is 4.0 gpm/ft^2.

In addition to the cloth media disc filters, rapid mix, coagulation, and flocculation tanks will be required for dosing of chemical coagulant and polymer. The existing tanks onsite can be used for chemical conditioning.

AASI provided a budgetary equipment cost for two (2) eight-disk AquaDisc Cloth Media Filters of $890,000 in prefabricated stainless-steel tanks. The cloth media filters can also be provided in cast in place concrete tanks at a budgetary equipment cost of $750,000. Ten percent was added to proposal costs to account for potential inflation between time of developing the cost estimate and when construction would be able to start.

This alternative will not require a new building to house the new cloth media filter equipment but can be installed directly in the ABF filter concrete tanks. Additional costs include piping, and all associated general mechanical and electrical work.

The Opinion of Probable Capital Costs are estimated at **$2,651,000**. The Opinion of Probable Annual Operation & Maintenance (O&M) Costs for power consumption, chemical, replacement, parts/supplies, and labor are **$105,000**. Refer to Table 3 for a breakdown of the Opinion of Probable Capital Costs.

[The remainder of this page was left blank intentionally.]

Table 3

Opinion of Probable Costs

Cloth Media Disk Filter System Alternative

Construction and Equipment Costs	
Demolition and Disposal	$83,000
Disk Filter Equipment *(in prefabricated stainless-steel tanks)*	$979,000
Mechanical, Pipe & Valve Installation	$196,000
Equipment Installation	$392,000
Electrical & Controls	$204,000
Subtotal	**$1,853,000**
General Conditions	$189,000
Engineering & Contingency	$612,000
Total Capital Cost	**$2,651,000**

Annual Operation and Maintenance Costs	
Labor	$9,000
Power	$5,000
Chemical	$37,000
Replacement	$45,000
Parts & Supplies	$9,000
Total Annual O & M	**$105,000**

D. Continuously Backwashed Up-Flow Sand Filters

Chemically enhanced, continuously backwash up-flow sand filtration is commonly used to meet restrictive effluent phosphorus limitations. A schematic of the process is shown in Figure 4, below.

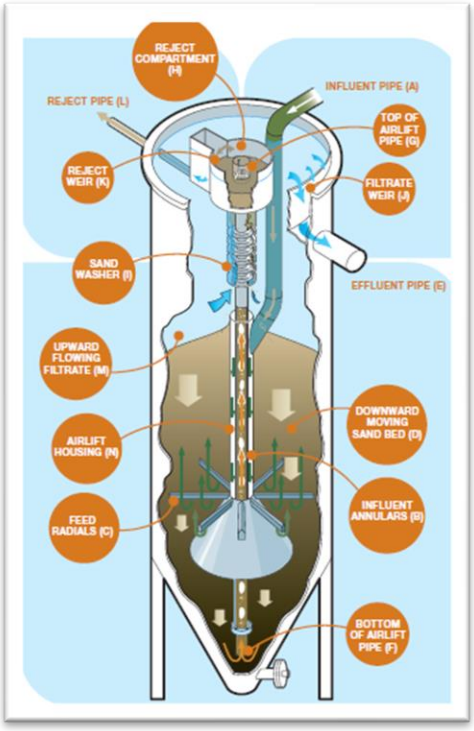


Figure 4: Continuously Backwashed Up-Flow Sand Filter.

In a continuously backwashed up-flow sand filter, the wastewater and sand travel in opposite directions. Chemically conditioned secondary effluent enters the top of the filter and flows downward through an annual section in the filter into the bottom of the sand bed through a series of slotted lateral feed radials. The radials are evenly distributed throughout the tank for an even distribution of the filter influent. Suspended solids are captured by the downward moving sand as the influent flows upward through the bed, existing at the top of the filter over a weir.

The sand bed is drawn downwards into the center of the filter and into the airlift pipe, where the sand is scoured to dislodge any attached solid particles. The sand slurry is pushed to the top of the airlift and into a reject compartment, where the heavier sand falls into the sand washer and the lighter solids are carried over the reject weir and out the reject pipe. A small amount of the polished effluent moves upwards through the sand washer carrying out the remaining reject solids as the cleaned sand is deposited back on the top of the sand bed.

Filters can be installed in series to achieve ultra-low effluent phosphorus concentrations less than 0.1 mg/L.

A process flow schematic is shown in Figure 5, below. Multi-point chemical addition for precipitation of phosphorus would be required to meet stringent effluent phosphorus limits. A coagulant such as Ferric Chloride or Aluminum Sulfate (Alum), would be added to the SBR at the end of the react phase.

SBR effluent will flow to the post equalization basin and pumped to the filters. Flow would then go through the filters and would discharge to the downstream process. Reject water and floor drains would be piped back to the head of the plant. An advantage of piping reject water back to the head of the plant is that any non-reacted chemical will react with soluble phosphorus in the raw wastewater, slightly reducing the chemical feed requirements. Upstream of the filters.

Nexom was contacted to evaluate the feasibility of installing their BluePro® filter technology at Popular Grove WWTP. To treat an average flow of 1.0 mgd and a maximum flow 2.5 mgd, eight (8) CF64-60 BluePro® filters were recommended, with a total filtration area of 512 ft^2. The system has been designed with an average hydraulic loading rate of 1.35 gpm/ft^2, a maximum hydraulic loading rate of 3.9 gpm/ft^2, and a solid loading rate of 1.3 lbs. $TSS/day/ft^2$. The solid's loading rate is based on a maximum flow rate of 2.5 mgd and a maximum TSS of 22 mg/L. The recommendation is based upon the provision to maintain a satisfactory hydraulic surface loading rate with one (1) unit out of service.

Nexom provided a budgetary equipment cost for eight (8) CF64-60 BluePro® filters for $1,197,000 in prefabricated steel. The up-flow sand filters can also be provided in cast in place concrete tanks at a budgetary equipment cost of $827,000. The equipment costs include costs associated with the chemical feed system.

This alternative will require a new 40 ft. x 25 ft. building to house the BluePro® filter technology equipment. Additional costs include piping, site restoration, a road to provide access to the building, and all associated general mechanical and electrical work.

The Opinion of Probable Capital Costs are estimated at **$5,437,000**. The Opinion of Probable Annual Operation & Maintenance (O&M) Costs for power consumption, chemical, replacement, parts/supplies, and labor are **$113,966**. A breakdown of the opinion of probable costs is provided in Table 4.

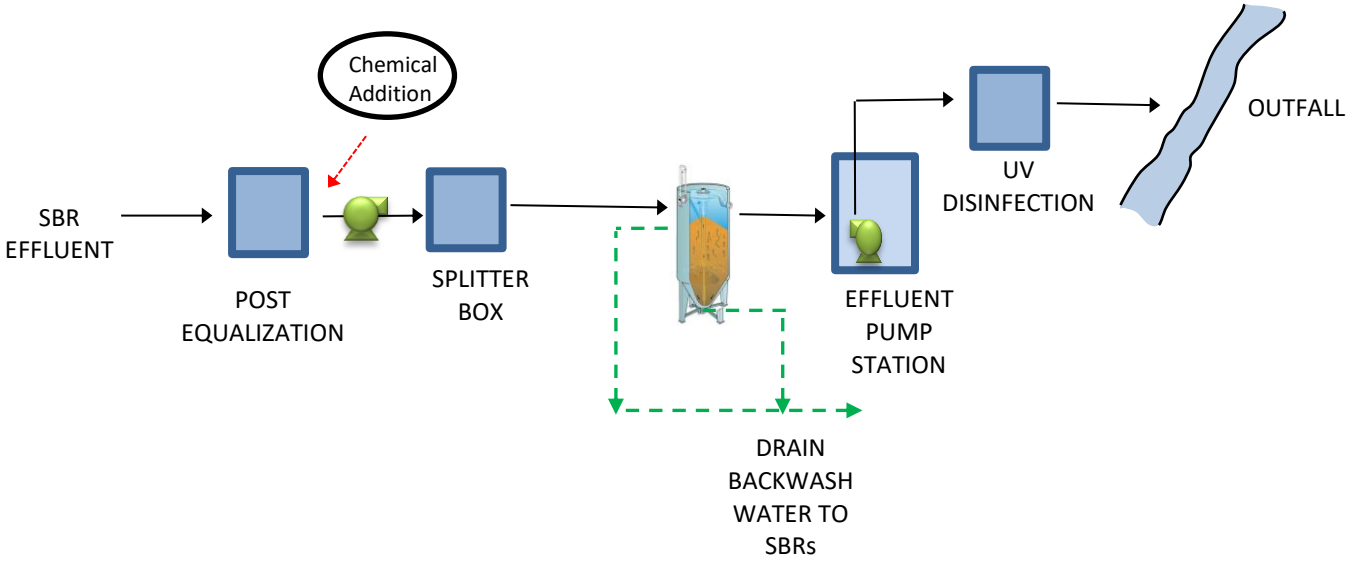


Figure 5
WATERWATER TREATMENT FACILITY
PROCESS FLOW SCHEMATIC CONTINUOUSLY BACKWASHED UP-FLOW SAND FILTER
VILLAGE OF POPLAR GROVE, IL
McM. No. P0013 07-21-00148.02

Table 4

Opinion of Probable Costs

Continuously Backwashed Up-Flow Sand Filter System Alternative

Construction and Equipment	**Cost**
Site Work	$44,000
Demolition and Disposal	$50,000
New Filter Building	$440,000
Submersible Pump Station	$275,000
Filter Feed Pumps	$110,000
Sand Filter Equipment *(in prefabricated stainless-steel tanks)*	$1,317,000
Mechanical, Pipe & Valve Installation	$448,000
Equipment Installation	$895,000
Electrical & Controls	$224,000
Subtotal	**$3,803,000**
General Conditions	$380,000
Engineering & Contingency	$1,254,000
Total Capital Cost	**$5,437,000**

Annual Operation and Maintenance Costs	
Labor	$11,970
Power	$18,626
Chemical	$5,550
Replacement	$64,850
Parts & Supplies	$12,970
Total Annual O & M	**$113,966**

VIII. OVERALL SUMMARY & SELECTED ALTERNATIVE

The current NPDES Permit, which was issued on September 26, 2019 (effective October 1, 2019), contains an effluent limit for total phosphorus of 1.0 mg/L (monthly average), which maybe follow by future effluent limits of 0.5 mg/L and 0.1 mg/L (monthly average).

The SWWTP has been able to maintain an average effluent phosphorus concentration of 0.43 mg/L from January 2019 through to December 2021. The SWWTP has been able to consistently meet a monthly average effluent concentration below 0.5 mg/L in the last three years, with the exception of the four-month period between November 2020 through February 2021. Tertiary treatment upgrades would be required to ensure the WWTP could consistently meet an NPDES permit effluent phosphorus limit of 0.1 mg/L.

The following treatment compliance alternatives were evaluated for meeting the new effluent Total P limitations:

- Tertiary Filtration
  - Cloth Media Disk Filter
  - Continuously Backwashed Up-flow Sand Filters

A Preliminary Opinion of Probable Cost was completed for the two (2) treatment alternatives. The following design criteria were used for sizing and evaluating each tertiary treatment alternative:

- Average Design Flow 1 mgd
- Max Flow 2.5 mgd
- Final Effluent TSS 4 mg/L
- Secondary Effluent Total Phosphorus with Chemical Addition 0.4 mg/L
- Final Effluent Total Phosphorus limit (Month Avg.) 0.1 mg/L

The two (2) treatment alternatives for meeting the 0.1 mg/L Total P limit are summaries below in Table 5.

Table 5

Summary of Treatment Alternative Costs

	AquaDisk®	BluePro®
Total Capital Cost	$2,651,000	$5,437,000
Total Annual O & M	$185,000	$113,966

The Cloth Media Filters appear to be the most cost-effective treatment alternative for meeting future effluent phosphorus limits, assuming the existing filters can be retrofitted with the disk filter equipment eliminating the need for a new filter building. It is recommended that the Village undertake Facility Planning on the SWWTP for a comprehensive and in-depth evaluation of implementing tertiary treatment improvements. A completed Facility Plan will be required by the

Illinois Environmental Protection Agency before improvements can take place. Additionally, when the Village is required to move forward with tertiary treatment, it is recommended that the alternatives be pilot tested to verify system performance and chemical use.

***** The Opinion of Probable Cost was prepared for use by the Owner in planning for future costs of the project. In providing Opinions Of Probable Cost, the Owner understands the Design Professional has no control over costs or the price of labor, equipment, or materials, or over Construction Professionals' method of pricing, and that the Opinions Of Probable Cost provided herewith are made on the basis of the Design Professional's qualifications and experience. It is not intended to reflect actual costs and is subject to change with the normal rise and fall of the local area's economy. This Opinion must be revised after every change made to the project or after every 30-day lapse in time from the original submittal by the Design Professional.

APPENDIX I
Monthly Effluent Flows and Loading
January 2019 – December 2021

Table I-1
Village of Poplar Grove
2019 Effluent Loading

Month	2019 Effluent											
	Flow		BOD		TSS		NH3-N		Total P		TKN	
	MGD		mg/L		mg/L		mg/L		mg/L		mg/L	
	Average	Max	Average	Max	Average	Max	Average	Max	Average	Max	Average	Max
Jan	0.245	0.736	1.00	1.00	2.47	14.00	0.09	0.19	0.26	0.86	0.46	0.46
Feb	0.329	0.560	2.00	5.00	1.58	3.00	0.91	4.07	0.29	1.03	0.78	0.78
Mar	0.368	0.836	1.67	3.00	3.08	7.00	0.14	0.42	0.29	0.72	0.33	0.33
Apr			2.88	6.00	3.57	7.00	0.06	0.10	0.23	0.53	0.29	0.29
May	0.439	0.813	1.50	3.00	2.46	13.00	0.07	0.16	0.14	0.20	0.76	0.76
Jun	0.326	0.546	1.00	1.00	2.67	16.00	0.21	0.58	0.42	0.94	0.87	0.87
Jul	0.327	0.637	2.00	4.00	1.29	4.00	0.27	1.94	0.33	0.67	0.46	0.46
Aug	0.221	1.221	1.00	1.00	2.46	8.00	0.09	0.21	0.20	0.43	1.79	1.79
Sep	0.340	0.983	1.00	1.00	1.67	9.00	0.07	0.12	0.28	0.73	0.82	0.82
Oct	0.351	0.829			3.00	21.00	0.10	0.44	0.17	0.26	0.95	0.95
Nov	0.352	1.068	1.00	1.00	4.69	22.00	1.44	6.64	0.24	0.59	0.77	0.77
Dec	0.234	0.423			2.25	4.00	0.06	0.12	0.17	0.20	0.32	0.32
Average	0.321	--	1.50	--	2.60	--	0.29	--	0.25	--	0.72	--
Max	0.439	1.221	2.88	6.00	4.69	22.00	1.44	6.64	0.42	1.03	1.79	1.79

Table I-1 (Continued)
Village of Poplar Grove
2020 Effluent Loading

Month	2020 Effluent											
	Flow		BOD		TSS		NH3-N		Total P		TKN	
	MGD		mg/L		mg/L		mg/L		mg/L		mg/L	
	Average	Max	Average	Max	Average	Max	Average	Max	Average	Max	Average	Max
Jan	0.254	0.398			3.83	7.00	0.05	0.08	0.26	0.80	6.36	12.20
Feb	0.201	0.384			4.09	8.00	0.05	0.08	0.21	0.40	1.33	1.33
Mar	0.294	0.312	3.50	3.33	7.07	7.60	2.09	2.65	0.43	0.43	7.56	7.56
Apr	0.330	0.928	3.75	4.00	6.17	15.00	2.45	9.89	0.47	0.83	0.56	0.56
May	0.327	0.509	4.00	4.00	4.73	7.00	0.26	1.03	0.55	1.47	0.93	0.93
Jun	0.357	0.916			5.86	9.00	0.06	0.10	0.51	2.22	0.61	0.61
Jul	0.277	0.420			5.77	9.00	0.07	0.09	0.37	0.75	0.71	0.71
Aug	0.243	0.399			5.67	15.00	0.29	2.41	0.28	0.41	0.48	0.48
Sep	0.236	0.850	2.33	5.00	5.29	11.00	0.06	0.08	0.30	0.33	0.99	0.99
Oct	0.207	0.304	2.00	2.00	5.33	10.00	0.10	0.31	0.36	0.54	0.91	0.91
Nov	0.199	0.288			5.60	12.00	0.06	0.12	1.35	1.84	0.29	0.29
Dec	0.215	0.378	5.00	5.00	3.60	7.00	0.07	0.11	1.52	2.15	0.77	0.77
Average	0.262	--	3.43	--	5.25	--	0.47	--	0.55	--	1.79	--
Max	0.357	0.928	5.00	5.00	7.07	15.00	2.45	9.89	1.52	2.22	7.56	12.20

Table I-1 (Continued)
Village of Poplar Grove
2021 Effluent Loading

Month	2021 Effluent											
	Flow		BOD		TSS		NH3-N		Total P		TKN	
	MGD		mg/L		mg/L		mg/L		mg/L		mg/L	
	Average	Max	Average	Max	Average	Max	Average	Max	Average	Max	Average	Max
Jan	0.217	0.314	2.00	2.00	5.83	9.00	0.35	1.30	1.29	1.46	1.10	1.10
Feb	0.204	0.392	1.00	1.00	5.73	9.00	0.32	1.89	1.24	1.89	1.09	1.33
Mar	0.359	0.745	3.33	5.00	5.25	10.00	0.09	0.27	0.41	1.36	1.03	1.03
Apr	0.261	0.537	18.00	18.00	3.33	9.00	0.11	0.33	0.70	2.83	1.01	1.20
May	0.225	0.429	4.00	5.00	4.13	7.00	0.08	0.27	0.21	0.26	0.52	0.52
Jun	0.211	0.498	1.00	1.00	3.75	12.00	0.08	0.15	0.24	0.29	0.66	0.91
Jul	0.221	0.379	1.10	2.00	2.75	4.00	0.10	0.19	0.21	0.25	0.93	0.93
Aug	0.285	2.045	1.54	2.00	4.90	8.00	0.39	1.80	0.25	0.44		
Sep	0.195	0.619	1.21	2.00	4.29	8.00	0.12	0.27	0.47	1.24	1.21	1.21
Oct	0.214	0.503	1.42	2.00	2.89	6.00	0.11	0.14	0.20	0.28		
Nov	0.214	0.349	1.07	2.00	3.25	7.00	0.09	0.14	0.35	1.95	0.71	0.72
Dec	0.213	0.485	1.17	2.00	2.33	5.00	0.09	0.15	0.20	0.77		
Average	0.235	--	3.07	--	4.04	--	0.16	--	0.48	--	0.92	--
Max	0.359	2.045	18.00	18.00	5.83	12.00	0.39	1.89	1.29	2.83	1.21	1.33