Table of Contents - NFWB Sept. 16, 2024 Work Session

AGENDA

Working Session of the
Niagara Falls Water Board
September 16, 2024 at 5:00 p.m.

Water Treatment Plant Conference Room
5815 Buffalo Avenue, Niagara Falls New York 14304

Meeting may be attended in person
or via videoconference – visit NFWB.org for details.

1. **Preliminary Matters**

    a. **Attendance:**

Dean (Board Member) ____

Forster (Chairman) ____

Kimble (Board Member) ____

Larkin (Board Member/Vice Chairwoman/Governance Chairwoman/ Chairwoman Exec. Staff Review Cmte.) ____

Sirianni (Board Member) ____

    b. **Comments from Chairman Forster**

        i. **2024 Budgeted Expenses - Expenditures of User Rates, Fees, and Charges Less Debt Service**

    c. **Presentations (none scheduled)**

d. **Letters and Communications**

    i. **2024-07-10 – COVID Wastewater Surveillance Update Memorandum**

e. **Prior Meeting Minutes**

    i. **Draft June 24, 2024 Meeting Minutes**

2. **Executive Director & General Counsel – Sean Costello**

3. **Operations Executive – David Conti**

4. **Outside Infrastructure Updates – David Conti**

5. **Engineering – Douglas Williamson**

6. **Personnel Items – David San Lorenzo**

    a. **July 22, 2024 Personnel Actions**

7. **Information Technology (IT) –Jonathan Joyce**

8. **Finance – Michael Smith**

    a. **Revenue vs. Budget (YTD 08-31-24)**
    b. **Water Board - Expense vs. Budget (YTD 08-31-24)**
    c. **Water Division - Expense vs. Budget (YTD 08-31-24)**
    d. **Sewer Division - Expense vs. Budget (YTD 08-31-24)**

9. **Questions Regarding June 2024 Operations and Maintenance Report**

    a. **WWTP Construction Schedule Tracker**
    b. **WWTP Project budget Status Spreadsheet**

10. **Safety – John Accardo**

11. From the Chairman

12. Resolutions

2024-09-001 - PROCUREMENT OF GRIT CYCLONE SCREW AND PARTS

a. **2024-08-08 - Koester Quotation 0003048 for Grit Screw Parts**

2024-09-002 - RECONDITIONING MOTOR FOR WWTP INTERMEDIATE PUMP NO. 2

a. **2024-09-03 - Volland Proposal 24-2110 for Reconditioning of WWTP IP No. 2 Motor**

2024-09-003 - REFURBISHMENT OF WWTP INTERMEDIATE PUMP NO. 2

a. **2024-07-26 - Siewert Proposal 72490 for Refurbishment of WWTP IP No. 2 Pump**

2024-09-004 - PROCUREMENT OF WATER METERS

a. **2024-09-09 - Ti-Sales Quotation QTE0072798 for Water Meters and Meter Components**

2024-09-005 - AUTHORIZING ENGINEERING SERVICES FOR LASALLE SSES PHASES 2 AND 3

a. **Extracted Fee Proposal Page from Arcadis's December 2022 SSES Proposal**

2024-09-006 - FINAL PAYMENT TO MOLEY INDUSTRIES FOR REBUILDING WTP HIGH LIFT PUMP NO. 2

a. **2024-06-30 - Invoice 33043 from Moley Magnetics, $103,349.77**
b. **2024-08-29 - Invoice 33662 from Moley Magnetics, $13,781.25**
c. **2024-08-30 - Invoice 33585 from Moley Magnetics, $24,318.72**

2024-09-007 - PAYMENT FOR EMERGENCY 12 INCH COMBINED SEWER REPAIR, 2200 BLOCK OF PIERCE AVENUE

a. **2024-09-12 - City Engineering Bid Tabulation for 12 Inch Combined Sewer Repair, 2200 Block of Pierce Ave**

2024-09-008 - CHANGE ORDER NO. 6 FOR WTP ROOF REPLACEMENT PROJECT

a. **2024-08-30 - WTP Roof Change Order No. 006, for Guard Post and Sludge Building Roofs**

2024-09-009 - ESA AGREEMENT WITH EPA RELATIVE TO RISK MANAGEMENT PROGRAM

a. **EPA ESA No. CAA-02-2024-1203**

2024-09-010 - REPLACEMENT OF WWTP TRANSFORMER BPD CABLES

a. **2024-08-21 - Ferguson Proposal FE00 50 00 for BPD Cable Replacement, Line 188, $24,990**

2024-09-011 - CHANGE ORDER 1 FOR 16 INCH CONCRETE WATER MAIN REPAIR AT HIGHLAND AND COLLEGE AVENUES

a. **2024-08-20 - Change Order No. 1 for 16 Inch PCCP Water Main Repair, Highland and College Avenues**

2024-09-012 - ACCEPTING HAZEN AND SAWYER PROPOSAL FOR LEAD SERVICE LATERAL ENGINEERING SERVICES

a. **2024-08-30 - Hazen and Sawyer Proposal for Lead Service Lateral Engineering Consulting Services**

2024-09-013 - ANNUAL RENEWAL OF NEW WORLD SOFTWARE LICENSES

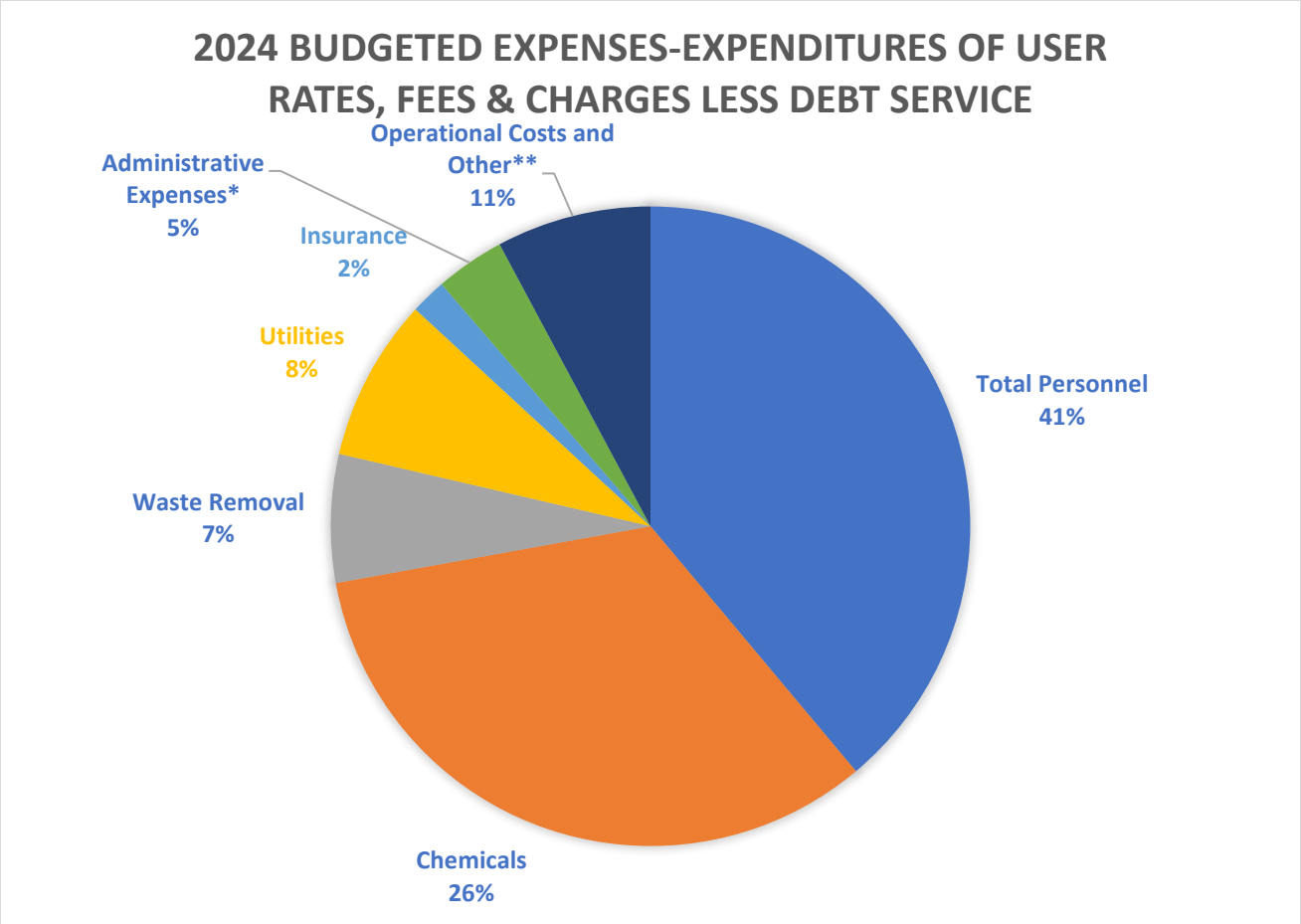
a. **2024-10-01 - Tyler Technologies Invoice for Annual New World SaaS Renewal - $120,930.99**

13. Unfinished/Old Business

14. New Business & Additional Items for Discussion

15. Executive Session (if needed)

16. Adjournment of Meeting



	2024	Percentage of Total
Total Personnel	$ 13,546,292	41%
Chemicals	$ 8,390,000	26%
Waste Removal	$ 2,200,500	7%
Utilities	$ 2,651,000	8%
Insurance	$ 630,000	2%
Administrative Expenses*	$ 1,549,650	5%
Operational Costs and Other**	$ 3,646,107	11%
Total	$ 32,613,549	100%

* Includes Office Supplies, Training, Computer Services & Software, and Professional Services

** Includes Rentals, Auto Expenses, Leases, Tools & Small Equipment, Machinery, Materials, and Undesignated Services

Wastewater Surveillance Update

DATE: September 11, 2024

TO: Niagara County Health Department, Wastewater Facilities, & Stakeholders [1]

FROM: Joe Moran, MSc [2]

RE: Niagara County Weekly Wastewater Surveillance Data Report

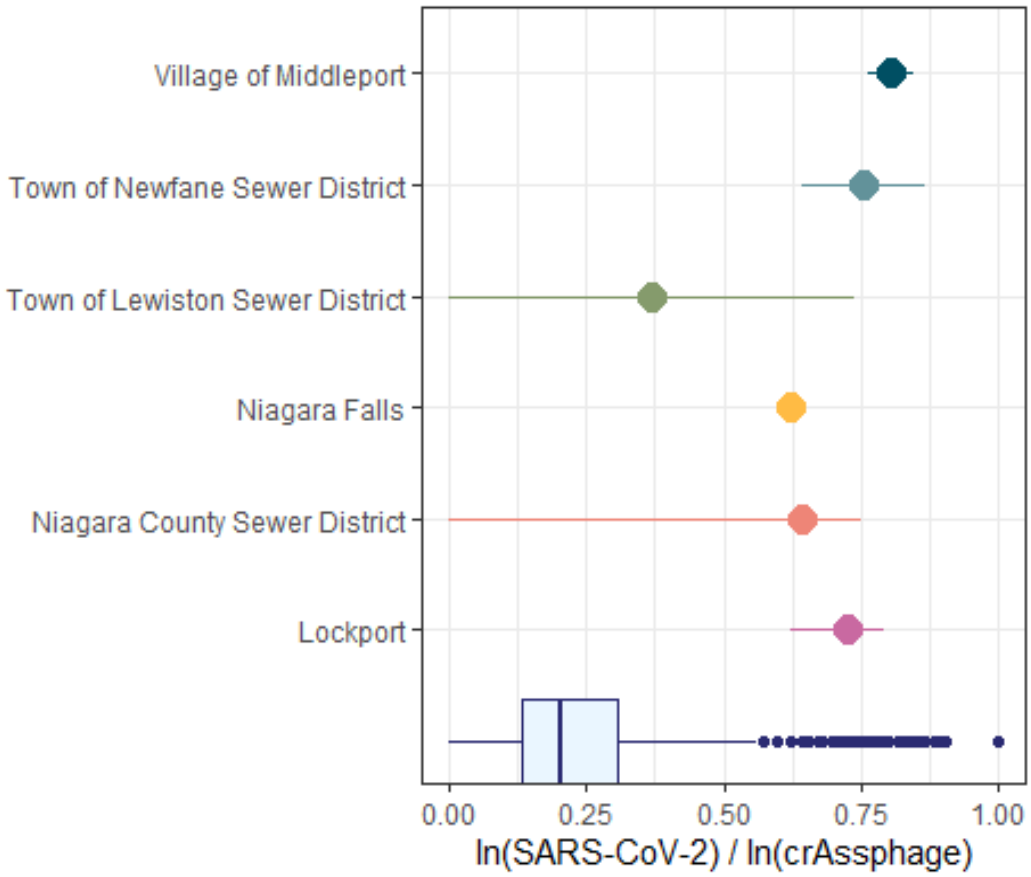
---

Dashboard | **Website**

All Samples from Niagara County From 2024-08-25 to 2024-09-04			
Collection Date	**Compared to NYS**	**Detection Level**	**Two-Week Trend**
Town of Newfane Sewer District			
September 4, 2024	higher	Quantifiable	increasing
August 27, 2024	lower	Quantifiable	increasing
Niagara County Sewer District			
September 3, 2024	higher	Quantifiable	increasing
August 29, 2024	lower	Not detected	increasing
August 26, 2024	higher	Quantifiable	increasing
August 25, 2024	lower	Quantifiable	increasing
Lockport			
September 3, 2024	higher	Quantifiable	increasing
September 2, 2024	higher	Quantifiable	increasing
August 27, 2024	lower	Quantifiable	increasing
August 26, 2024	lower	Quantifiable	increasing
Niagara Falls			
September 3, 2024	lower	Quantifiable	increasing
August 26, 2024	lower	Quantifiable	increasing
Town of Lewiston Sewer District			
September 2, 2024	lower	Not detected	decreasing
August 26, 2024	higher	Quantifiable	decreasing
Village of Middleport			
September 2, 2024	higher	Quantifiable	increasing
August 26, 2024	higher	Quantifiable	increasing

[1] Thank you for your continued participation in the New York State Wastewater Surveillance Network. We appreciate the time and service you give every week. Because of people like you, we can use wastewater data to provide an early warning to communities, forecast hospitalizations, and look at trends of SARS-CoV-2 in the sewershed population, county, region, and state.

[2] Contact me if you have any questions or concerns (845-866-7543 or joemoran@cdcfoundation.org)



Points represent the SARS-CoV-2 intensity of samples taken at the influent over the last two weeks. The box plot represents all SARS-CoV-2 values from the previous two weeks as observed from wastewater treatment facilities across New York. The box plot shows the median (solid line), first and third quartiles (box edges), minimum (lower whiskers), maximum (upper whisker), and outliers (black dots) for all NY WWTP's. The concentration of SARS-CoV-2 is normalized by population, ln(SARS-CoV-2)/ln(crAssphage), to give overall intensity.

The most recent sample from Lockport on September 03, 2024 is higher when compared to New York State values.

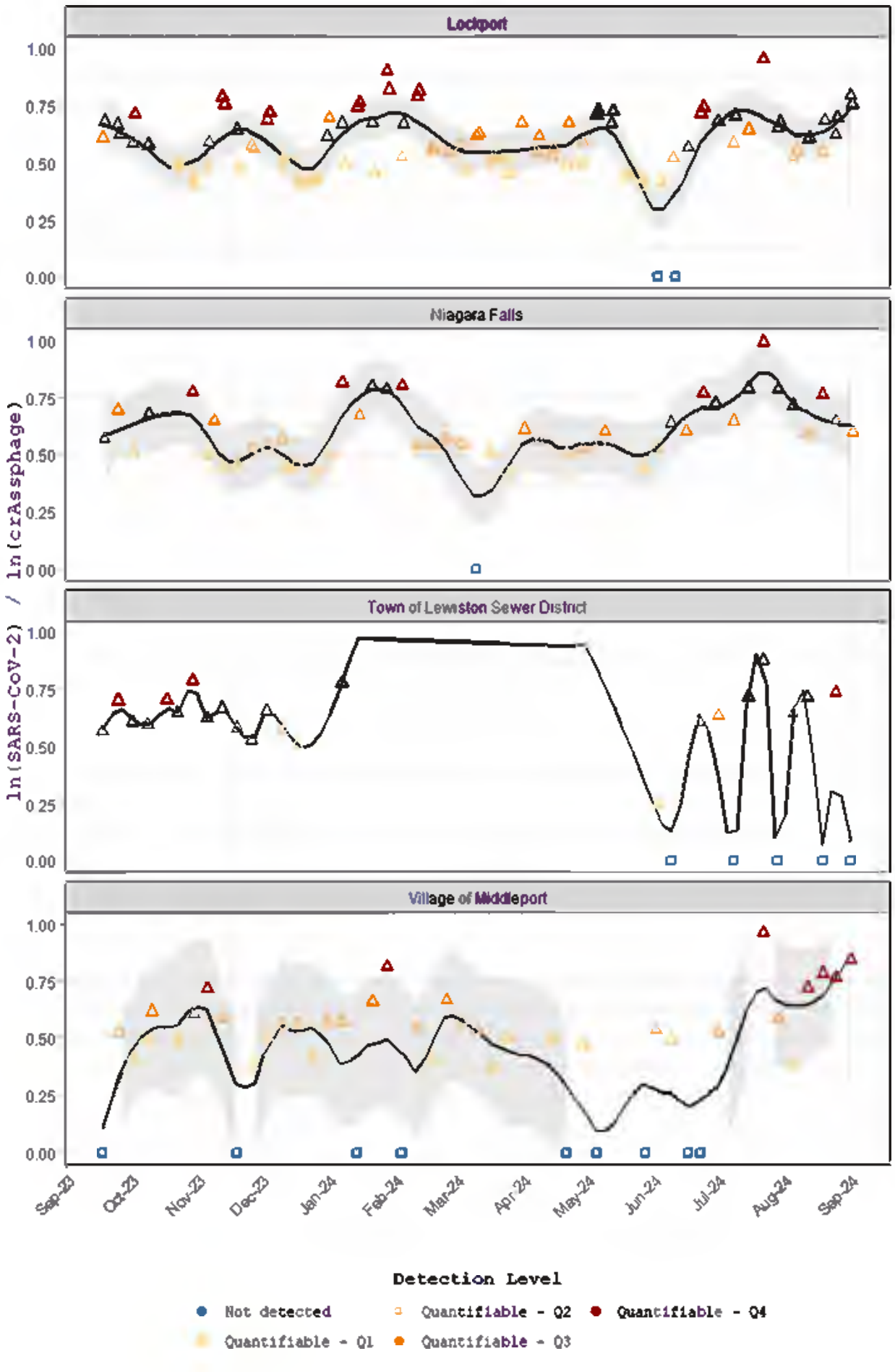
The most recent sample from Niagara County Sewer District on September 03, 2024 is higher when compared to New York State values.

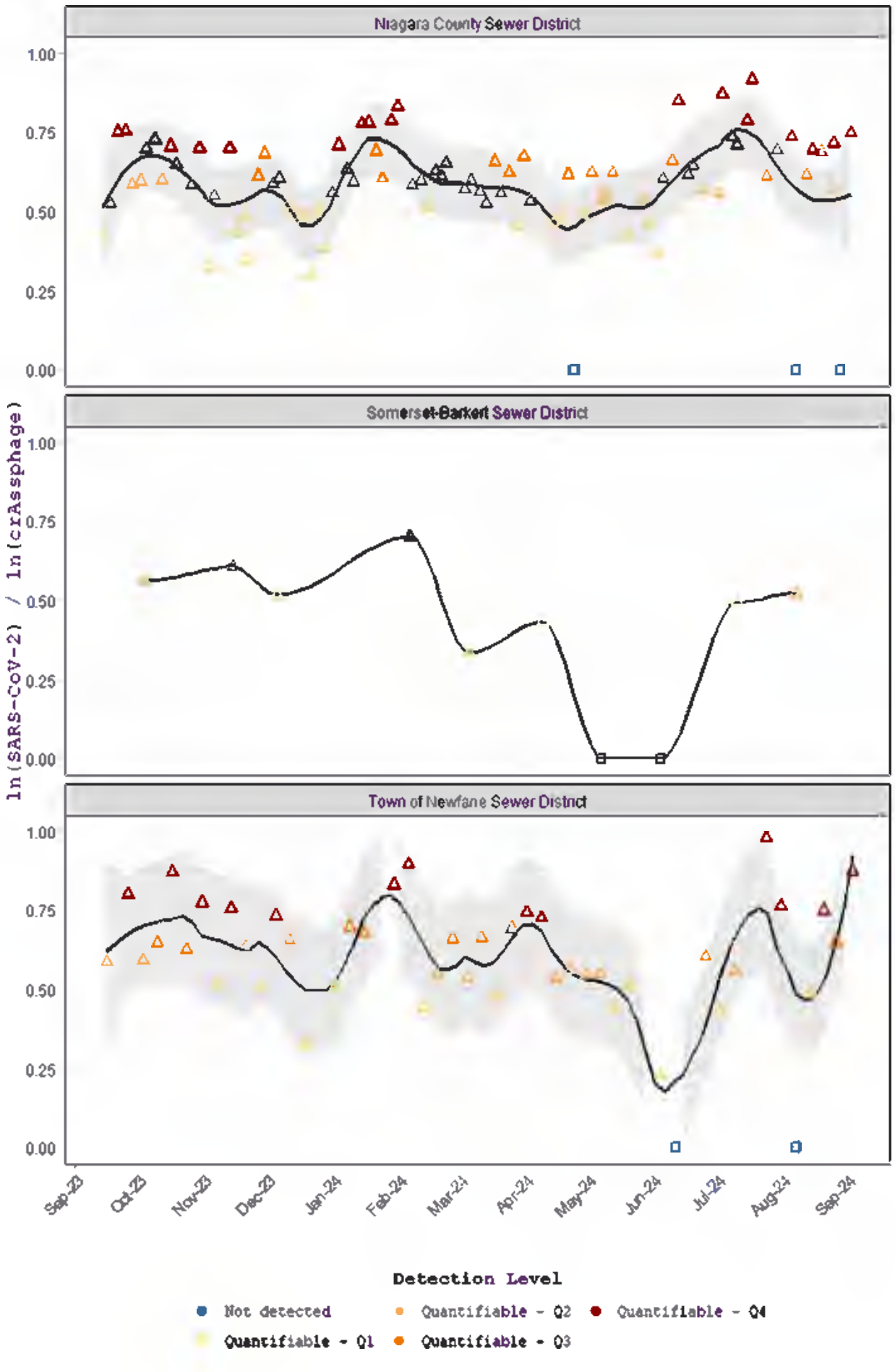
The most recent sample from Niagara Falls on September 03, 2024 is lower when compared to New York State values.

The most recent sample from Town of Lewiston Sewer District on September 02, 2024 is lower when compared to New York State values.

The most recent sample from Town of Newfane Sewer District on September 04, 2024 is higher when compared to New York State values.

The most recent sample from Village of Middleport on September 02, 2024 is higher when compared to New York State values.


Lockport
Niagara Falls
Town of Lewiston Sewer District
Village of Middleport
ln(SARS-CoV-2) / ln(crAssphage)
1.00
0.75
0.50
0.25
0.00
Sep-23
Oct-23
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24
Detection Level
Not detected
Quantifiable - Q1
Quantifiable - Q2
Quantifiable - Q3
Quantifiable - Q4


Niagara County Sewer District
Somerset-Barker Sewer District
Town of Newfane Sewer District
ln(SARS-CoV-2) / ln(crAssphage)
1.00
0.75
0.50
0.25
0.00
Sep-23
Oct-23
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24
Detection Level
Not detected
Quantifiable - Q1
Quantifiable - Q2
Quantifiable - Q3
Quantifiable - Q4

A smoothed trend line (black), uncertainty (gray), and wastewater samples (shapes) are shown. Wastewater sample points are color coded to specify the level of SARS-CoV-2 detected. The concentration of SARS-CoV-2 is normalized by population, ln(SARS-CoV-2)/ln(crAssphage), to give overall intensity. Quantifiable detentions are given quantiles to show how current values compare to historical data.

The level of SARS-CoV-2 RNA can tell us roughly how many cases can be expected in a population.

- Not detected: <10 cases per 100,000
- Detected, <LOQ: 10-50 cases per 100,000
- Quantifiable detection: >50 cases per 100,000

The most recent sample from Lockport on September 03, 2024, had a detection level of "Quantifiable" suggesting daily case incidence of more than 50 cases per 100,000 people.

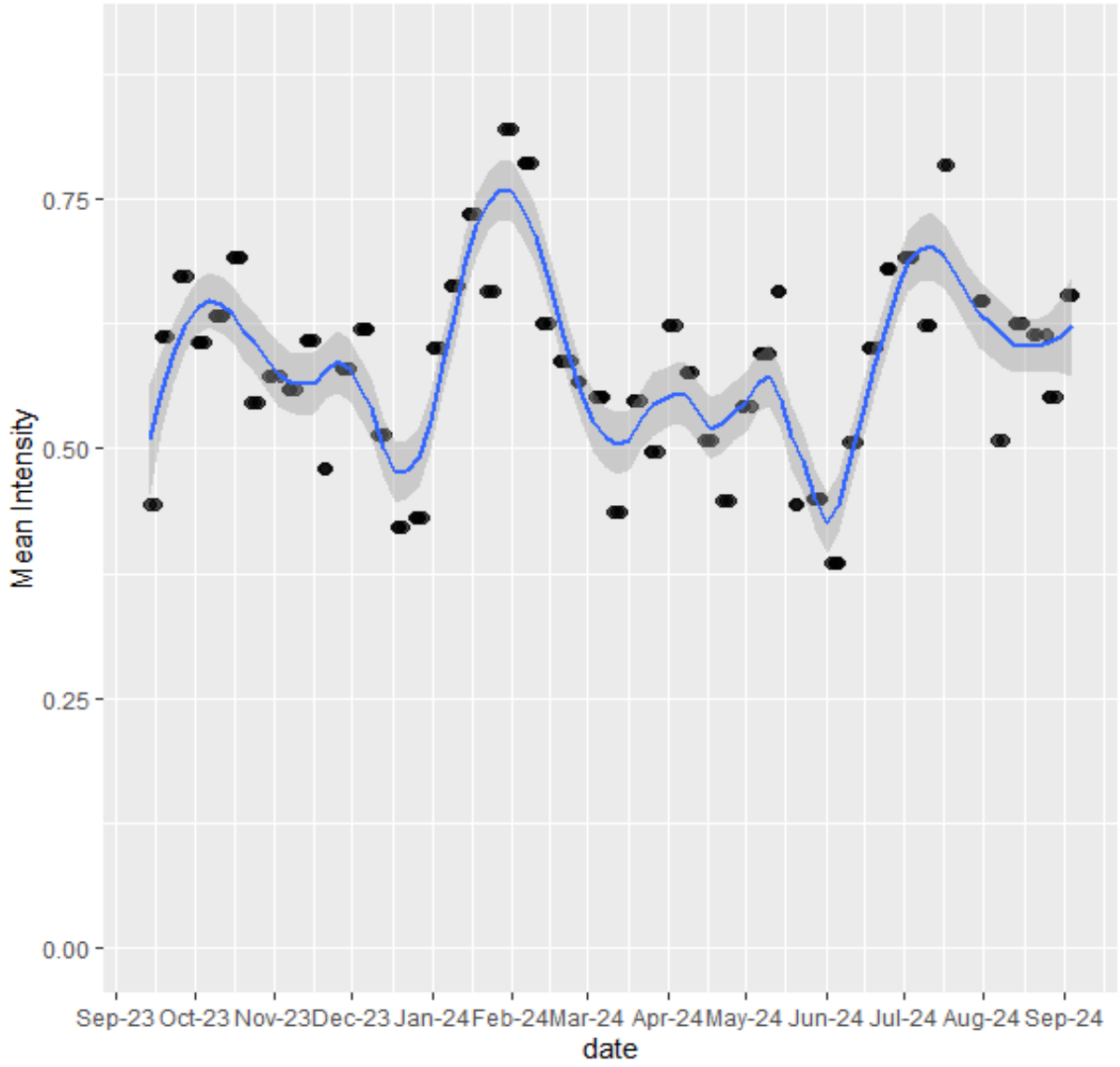
The most recent sample from Niagara County Sewer District on September 03, 2024, had a detection level of "Quantifiable" suggesting daily case incidence of more than 50 cases per 100,000 people.

The most recent sample from Niagara Falls on September 03, 2024, had a detection level of "Quantifiable" suggesting daily case incidence of more than 50 cases per 100,000 people.

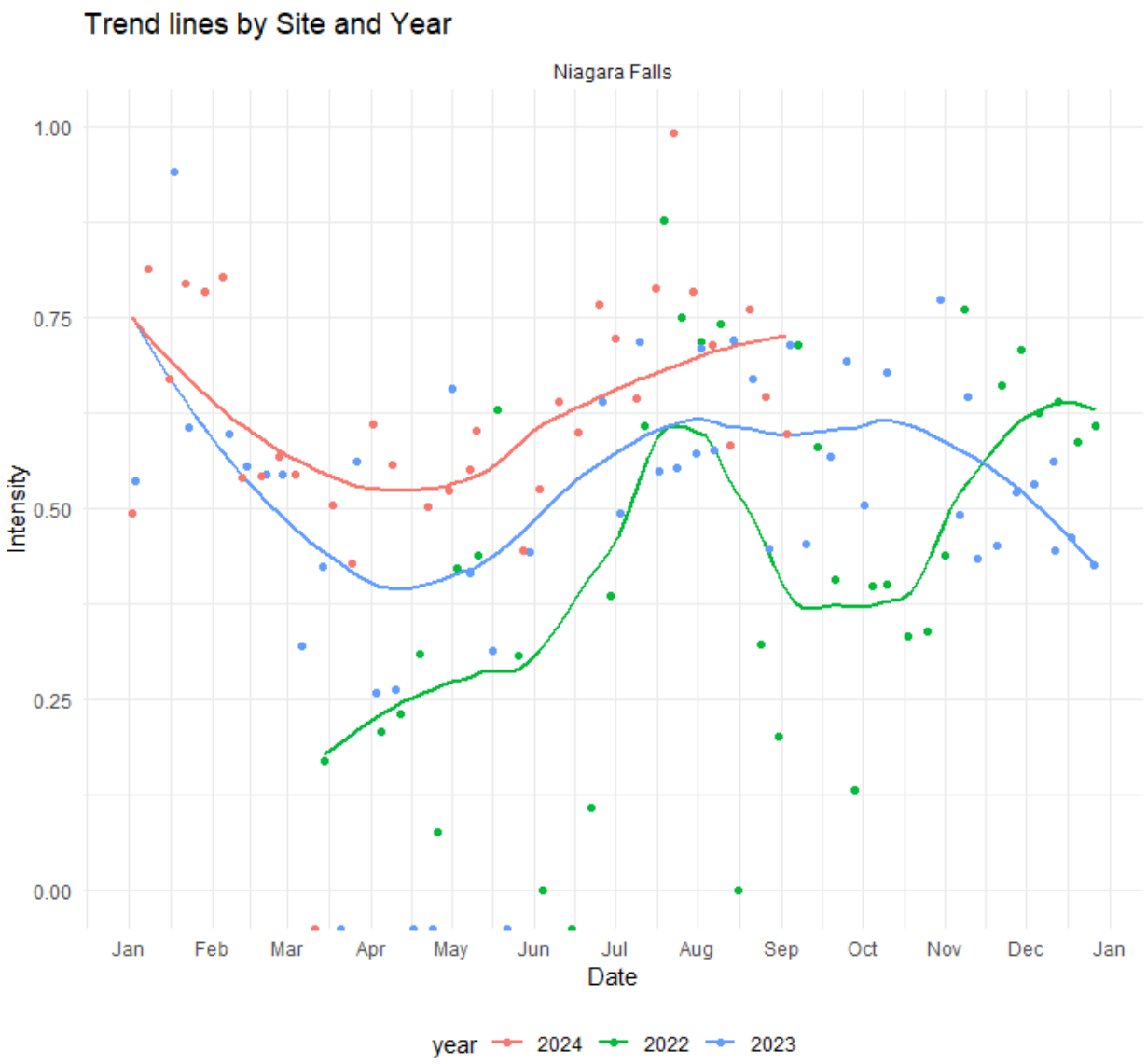
The most recent sample from Town of Lewiston Sewer District on September 02, 2024, had a detection level of "Not detected" suggesting daily case incidence of less than 10 cases per 100,000 people.

The most recent sample from Town of Newfane Sewer District on September 04, 2024, had a detection level of "Quantifiable" suggesting daily case incidence of more than 50 cases per 100,000 people.

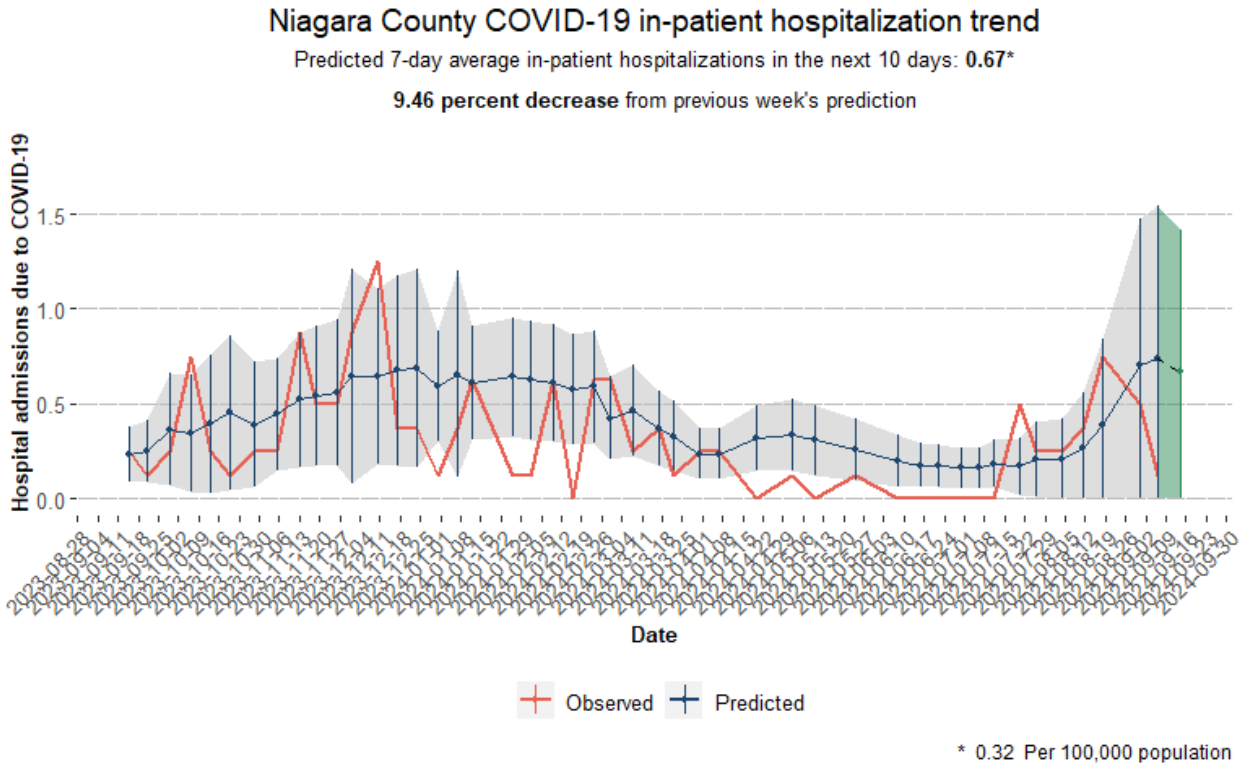
The most recent sample from Village of Middleport on September 02, 2024, had a detection level of "Quantifiable" suggesting daily case incidence of more than 50 cases per 100,000 people.



Average intensity (population weighted) for all Niagara WWTP's over the last 12 months.



This figure shows an annual comparison of SARS-CoV-2 intensity. Smoothed trend lines, uncertainty (gray bands), and wastewater samples (dots) are shown.



This figure shows predicted new in-patient hospital admissions due to COVID-19 for your county. Predictions are calculated from a generalized linear mixed model that fits wastewater data with a ten-day lag, log transformed active case numbers, along with several covariates including population over 50 years old, estimated asthma and cardiovascular disease rate for the county, and county social vulnerability from the CDC social vulnerability index.

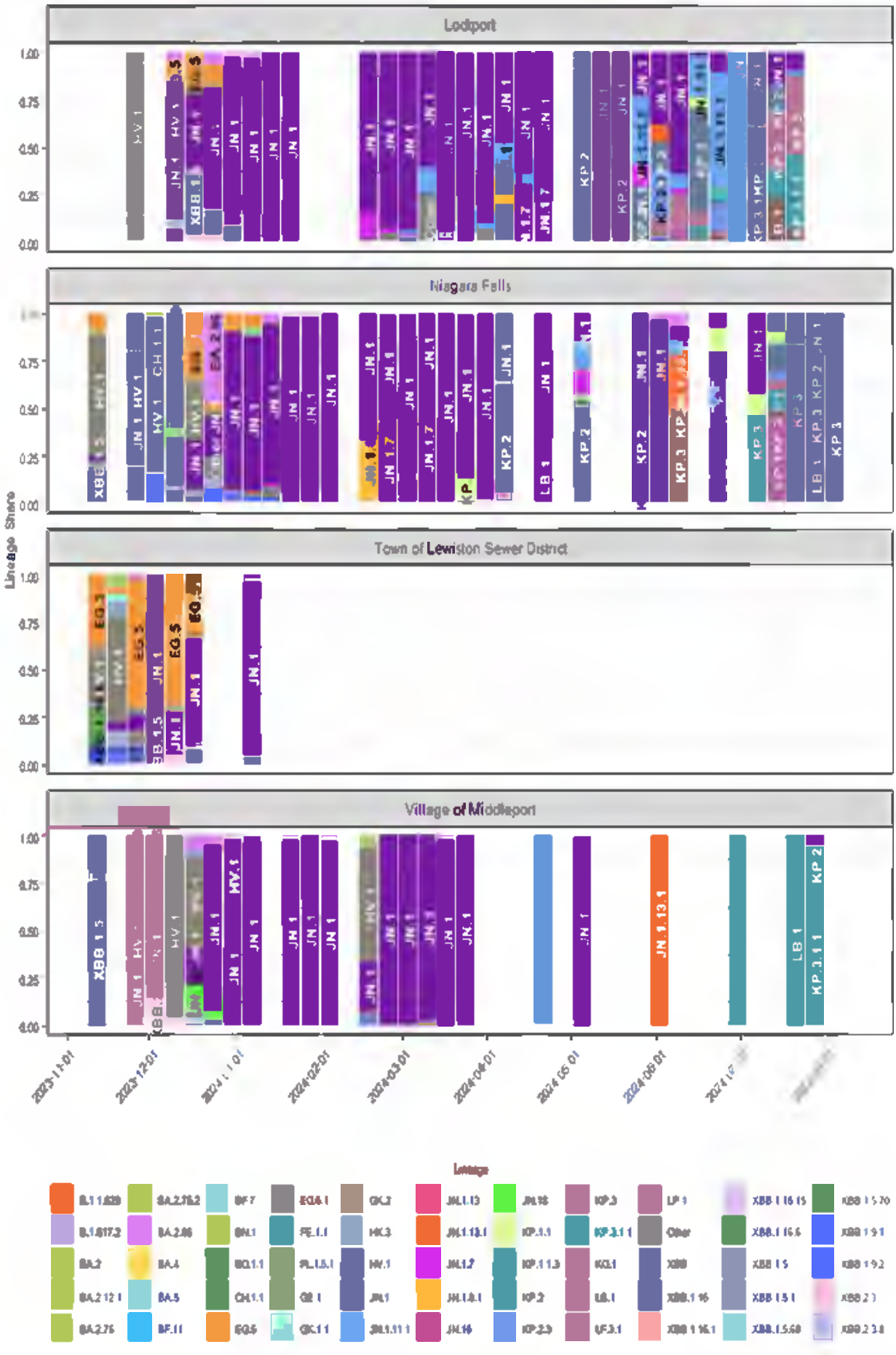
UPDATE AUGUST 4, 2023: With the end of the emergency declaration on May 11, 2023, several hospitals changed how they report case data including no longer reporting negative PCR test results. This resulted in an artificial increase in test positivity in those counties and negatively impacted our forecasting. Due to this change, we have removed test positivity and replaced it with the 7-day average of active cases. While not as reliable as test positivity was, this change has helped move the predictions closer to what we are observing. The new model also includes a regional average for SARS-CoV-2 intensity detection for the past 90 days indicative of the overall state of transmission for a region.

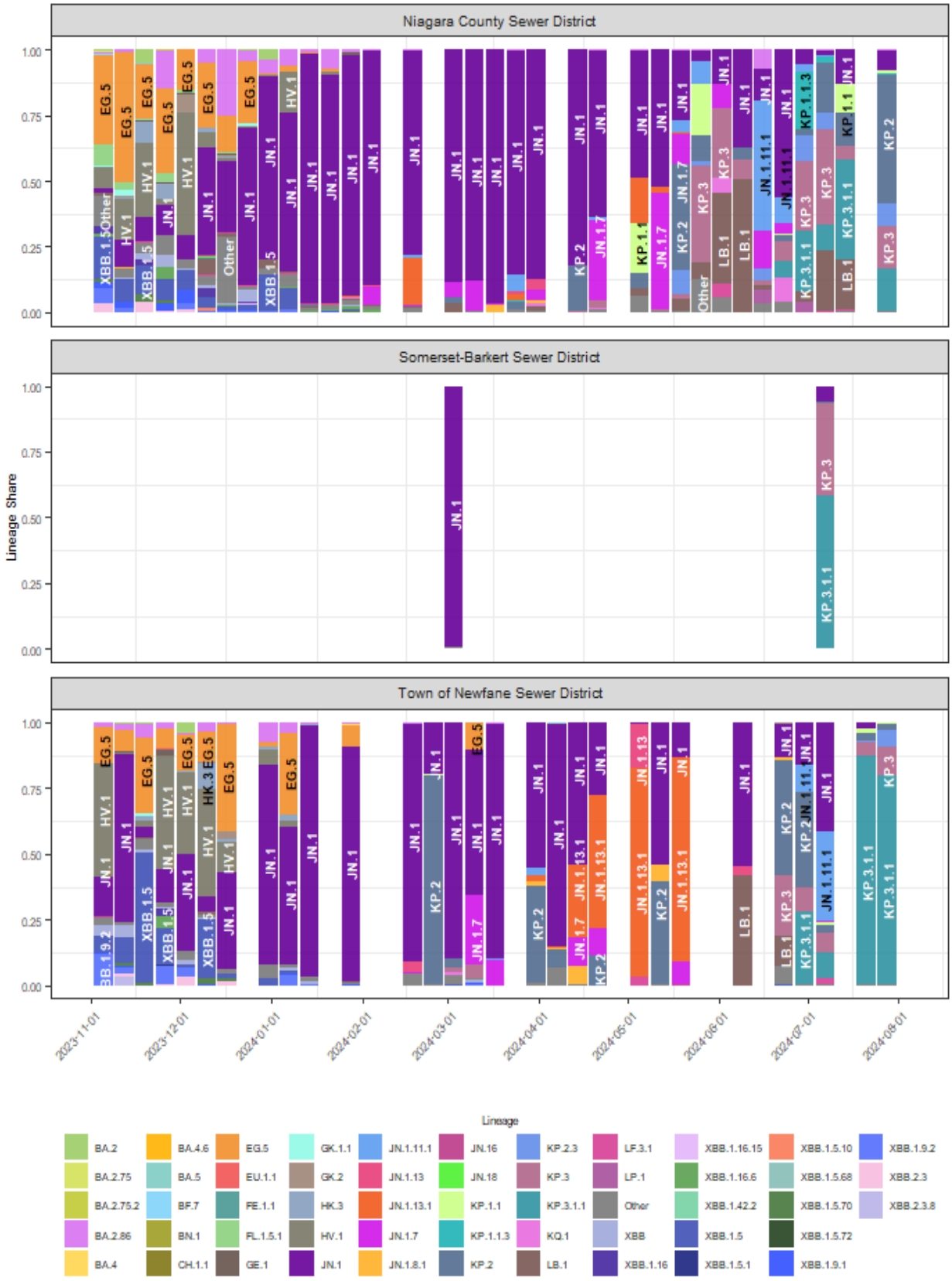
This model makes predictions with new data for future hospital admissions and provides uncertainty around the prediction in the form of the 95% confidence interval (the light grey and green band around the predictions). Past predictions are in blue with the current prediction in light green. The red line is actual hospital admissions from the Department of Health HERDS or Health Electronic Response System data These data are up-to-date for most counties. We will update these data and the models as new data are provided. Estimated new COVID-19 hospitalizations are predictions only and come with several uncertainties including whether new variants have arisen, what the current immunization state of the county is (including booster and bivalent shots or immunity from previous infection), and other factors not captured in the model such as intervention behaviors such as masking. Week to week predictions will vary in their accuracy and the width of the confidence interval around the prediction due to changes in the data.

Last 4 Weeks Niagara County Sewersheds: Variants found from weeks beginning Sun, Jul 28, 24 to Sun, Aug 04, 24		
Label	**Sewershed**	**Variants Found**
Variant of concern	Niagara County Sewer District	KP.2; KP.3.1.1
Variant of interest	Niagara County Sewer District	KP.1.1.3
Variant of concern	Niagara Falls	KP.1.1.3; KP.2.15; KP.2.3; KP.3; KP.3.1.1
Variant under monitoring	Niagara Falls	KP.2.15; LP.1
Variant of concern	Town of Newfane Sewer District	KP.2.15; KP.2.3; KP.3.1.1
Variant of concern	Village of Middleport	JN.1.16.1; KP.2; KP.2.15; KP.3.1.1; XDP
Variants found throughout state from 2024-07-28 to 2024-08-25: BA.2.86, JN.1, JN.1.11.1, JN.1.13.1, JN.1.16, JN.1.16.1, JN.1.18, JN.1.32, JN.1.4.3, JN.1.7, JN.1.8.1, KP.1.1, KP.1.1.3, KP.1.2, KP.2, KP.2.15, KP.2.3, KP.3, KP.3.1.1, KP.4.1, KQ.1, KS.1, KV.2, KW.1.1, LB.1, LF.3.1, LP.1, XDP, XDV.1		

County level variants under monitoring table in the last four and six weeks: This table shows variants being monitored by various public health organizations. Variant name, source of information, monitoring status of variant, and presence within the county and state within the last four and six weeks are shown. Each variant is shown at four and six week intervals shown in the footnotes.

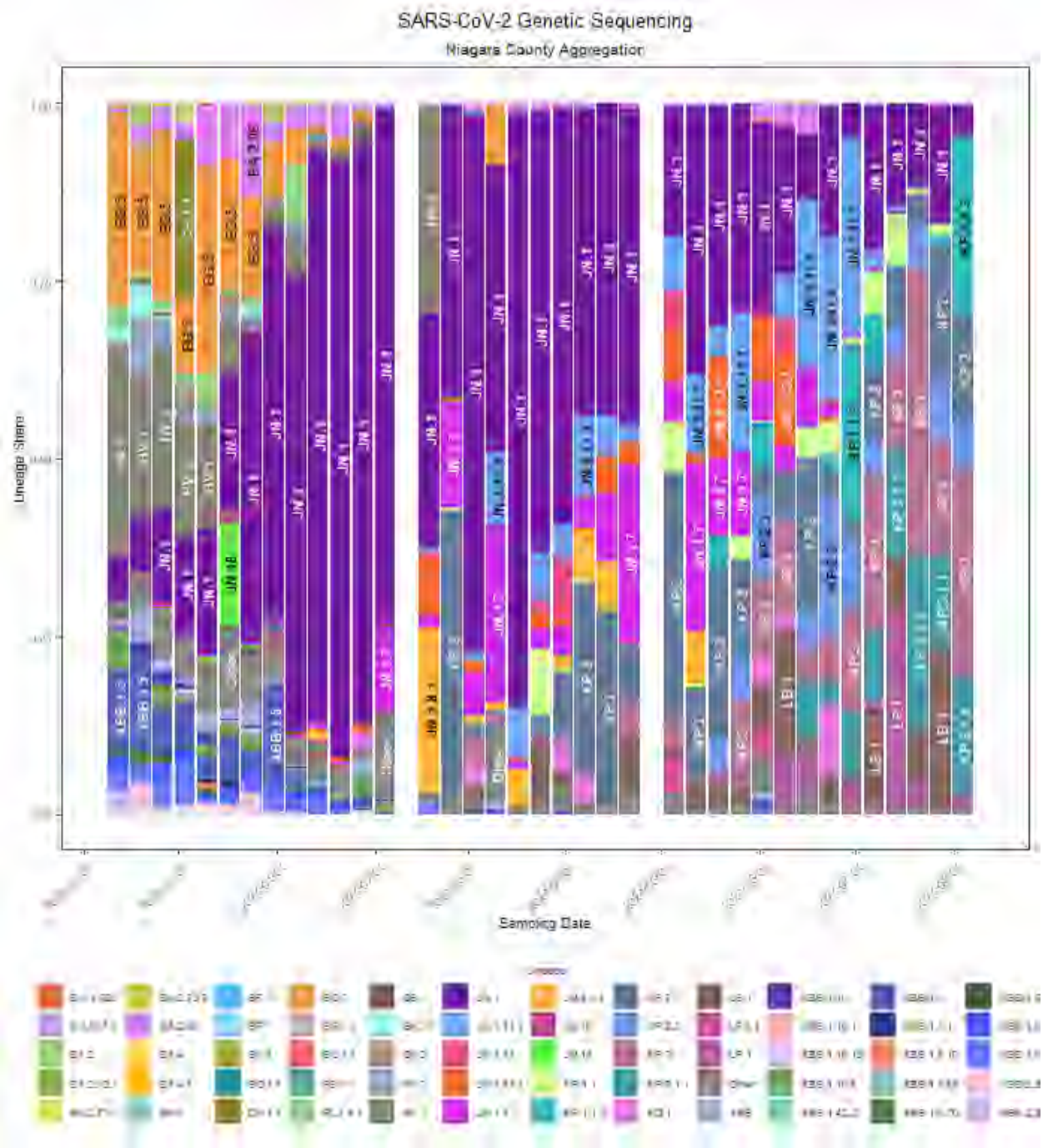
- Not detected within state or county: variant not detected at the state or county-level
- Detected at state-level: detected somewhere else in the state, but not in the county listed
- Detected within county: detected within the county showed


Lockport
Niagara Falls
Town of Lewiston Sewer District
Village of Middleport
Lineage Share
1.00
0.75
0.50
0.25
0.00
2023-11-01
2023-12-01
2024-01-01
2024-02-01
2024-03-01
2024-04-01
2024-05-01
2024-06-01
2024-07-01
Lineage



Sewershed level of SARS-CoV-2 genetic sequencing throughout time

Each bar shows the relative abundance of SARS-CoV-2 lineages during a sample collection date. Lineages with an abundance of at least 20% are labeled on the bar sections with the lineage name. The color of the bar corresponds to lineage. See the legend for more information regarding lineages.



County aggregation of SARS-CoV-2 genetic sequencing throughout time

Each bar shows the relative abundance of SARS-CoV-2 lineages per sample collection date. Lineages with an abundance of at least 20% are labeled on the bar sections with the lineage name. The color of the bar corresponds to lineage. See the legend for more information regarding lineages.

MINUTES

Business Meeting of the Niagara Falls Water Board July 22, 2024 at 5:00 p.m.

Water Treatment Plant Conference Room
5815 Buffalo Avenue, Niagara Falls New York 14304

Meeting could be attended in person or via videoconference.

1. **Preliminary Matters**

Chairman Forster called the meeting to order at 5:00 p.m.

a. **Attendance:**

Asklar (Board Member/Chairman of Finance/Member Exec. Staff Review Cmte.) ***Present via Videoconference***

Forster (Chairman) ***Present***

Kimble (Board Member) ***Present via Videoconference***

Larkin (Board Member/Vice Chairwoman/Governance Chairwoman/ Chairwoman Exec. Staff Review Cmte.) ***Present***

Sirianni ***Present***

b. **Presentations (None Scheduled)**

c. **Public Comments (All speakers must register with the meeting clerk prior to roll call and are limited to three minutes per person – total time for all speakers may not exceed one hour).**

d. **Comments from Chairman Forster**

i. **2024 Budgeted Expenses - Expenditures of User Rates, Fees, and Charges Less Debt Service**

Chairman Forster expressed gratitude to Gretchen Leffler, who was appointed to the Board by Governor Cuomo in 2013 and served until July 2024. During her time on the Board, she contributed by serving as Chair, Treasurer, and on the Executive Staff Review Committee.

e. **Letters and Communications**

i. **Correspondence from NYS Park Police Commending NFWB Staff for Response to Water Issue**
ii. **2024-07-10 – COVID Wastewater Surveillance Update Memorandum**
iii. **WWTP Order on Consent Q2 2024 Quarterly Progress Report**

f. **Prior Meeting Minutes**

i. **Draft June 24, 2024 Meeting Minutes**

Motion by Board Member Larkin and seconded by Board Member Sirianni to approve.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Abstain__

Motion carried, 4-0, with one abstention.

2. **Executive Director & General Counsel – Sean Costello**

Mr. Costello discussed a repair completed that day on an 8" water main located on Hyde Park Blvd., as well as the NFWB response to a train derailment in the morning. He noted that the NFWB will submit an application for funds for the WWTP conversion under the Water Quality Improvement Project (WQIP) program, in advance of the July 31, 2024 deadline.

3. **Operations Executive & Outside Infrastructure Updates – David Conti**

Mr. Conti stated that air monitoring at the WWTP did not indicate safety issues as a result of diesel fuel spilled in the train derailment that morning. Work to enclose and protect the Gorge Pump Station loading dock area is progressing. Mr. Conti is working with finance and the meter shop to complete a necessary software upgrade.

4. **Engineering – Douglas Williamson**

Mr. Williamson is working with Ferguson Electric on installation of replacement WWTP transformers 5 A/B, as efforts are underway to find a better solution than installing them on a pad outside of the building.

5. **Personnel Items – David San Lorenzo**

    a. **July 22, 2024 Personnel Actions**
    b. **Union Time Paid by Water Board**

Motion by Board Member Larkin and seconded by Board Member Asklar to consider the items on the Personnel Actions sheet individually.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

Motion by Board Member Larkin and seconded by Board Member Sirianni to approve item A1 (CDT Trainee).

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

Motion by Board Member Larkin and seconded by Board Member Asklar to approve item A2 (WWTP Operator Trainee).

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

Motion by Board Member Larkin and seconded by Board Member Kimble to approve item A3 (WTP Control Maintenance Mechanic).

Board Member Sirianni questioned whether the position is needed because the department is short-handed or short on qualified staff. Ms. Larkin asked if there is a lot of overtime. Mr. Conti stated there is not excess overtime, but with more staff more work could be performed in house, citing the pump work anticipated necessary. Mr. Sirianni stated that he believes the NFWB should reassess its hiring policy, especially for maintenance, to make sure that hires are qualified.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__N__

Motion carried, 4-1.

Motion by Board Member Larkin and seconded by Board Member Asklar to approve item B1 (Pay Rate for Temporary WTP Operator).

Asklar __Abstain__Forster __N__Kimble__N__Larkin__N__Sirianni__N__

Motion failed, 4-0, with one abstention.

6. **Information Technology (IT) –Jonathan Joyce**

Mr. Joyce reported that the NFWB was not impacted by last week's CrowdStrike cyber incident. Work continues to redesign the network to be more cloud-based. Door access alarm at the Gorge and 56th Street water tank is being improved. IT continues to roll out mobile device management to devices.

7. **Finance – Michael Smith**

    a. **Key Bank and Bank on Buffalo Balance Report**
    b. **Wilmington Trust Balance Report**
    c. **Treasury Account Balance Report**
    d. **Capital Payments**
    e. **Budget Amendments Report**

Mr. Smith noted that a New World patch has been deployed, it will not be certain if the issues being fixed are resolved until the next billing statement. Work continues to make sure proper NYS unemployment insurance tax payments are made. The NFWB recently received $2 million from tax transfers from 2014-2024.

8. **Safety – John Accardo**

9. **Questions Regarding June 2024 Operations and Maintenance Report**

10. **From the Chairman**

11. Resolutions

2024-07-001 – PROCUREMENT OF WTP LEAD HIGH LIFT PUMP

a. **2024-07-08 - Fluid Kinetics Quote for WTP Lead High Lift Pump**
b. **2024-06-19 - Sole Source Letter - Fluid Kinetics as Exclusive Regional Distributor of OEM Floway Pump Products**

Motion by Board Member Asklar and seconded by Board Member Larkin to approve.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

2024-07-002 – ENGINEERING SERVICES FOR WWTP FLOCCULATION TANK WALKWAYS

a. **2024-07-09 - JM Davidson Proposal for WWTP Flocculation Tank Walkway Project Engineering Services**

Motion by Board Member Kimble and seconded by Board Member Larkin to approve.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

2024-07-003 – PAYMENT FOR EMERGENCY REBUILDING OF WTP LEAD HIGH LIFT PUMP NO. 2

a. **Moley Industries Invoices totaling $43,189.16**

Motion by Board Member Larkin and seconded by Board Member Sirianni to approve.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

2024-07-004 – ACCEPTING CPL PROPOSAL FOR BEECH AVENUE WATER TANK AND WATER MAIN ENGINEERING SERVICES

a. **2024-02-19 - CPL Capital Projects RFP Proposal - Material Not Relevant to Resolution Omitted**

Motion by Board Member Kimble and seconded by Board Member Larkin to approve.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

2024-07-005 – CPL PROFESSIONAL SERVICES EXTENSION

a. **2024-06-17 - CPL Services Renewal Proposal - July 2024 through December 2025**

Motion by Board Member Larkin and seconded by Board Member Kimble to approve.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

2024-07-006 – TWO MONTH MORATORIUM ON PERSONNEL ACTIONS

Motion by Board Member Sirianni and seconded by Board Member Kimble to approve.

Board Member Sirianni explained that he would like a two-month moratorium to allow time to work to resolve issues with Civil Service and it will also hold costs down. The Board discussed residency for NFWB positions and Chairman Forster read a July 17, 2024 email from Karen Bush on the subject.

Asklar __N__Forster __N__Kimble__Y__Larkin__N__Sirianni__Y__

Motion failed, 2-3.

2024-07-007 – EXTENSION OF TEMPORARY OPERATOR TRAINEE INCENTIVE PROGRAM

a. **Draft Memorandum of Understanding**

Motion by Board Member Sirianni and seconded by Board Member Kimble to approve.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

12. Unfinished/Old Business

13. New Business & Additional Items for Discussion

Board Member Sirianni stated that he would like to walk on an agenda item in the form of a motion that it is not the Water Board's responsibility to spend funds on legal matters related to appointments to the Board. Discussion was had on whether Board Member Asklar had a conflict of interest in the vote, and after initially voting no to adding the agenda item he changed his vote to an abstention.

Motion by Board Member Sirianni to consider the new agenda item and seconded by Board Member Larkin.

Asklar __Abstain__Forster __N__Kimble__Y__Larkin__N__Sirianni__Y__

Motion failed, 2-2, with one abstention.

Board Member Sirianni questioned the resolution of a PERB charge involving payment of accruals for retiring employees, and why the attorney representing the NFWB stated the Board would not authorize settling for more than 80%.

14. Executive Session (if needed)

15. Adjournment of Meeting

Motion by Board Member Asklar and seconded by Board Member Larkin to adjourn the meeting at 6:17 p.m.

Asklar __Y__Forster __Y__Kimble__Y__Larkin__Y__Sirianni__Y__

Motion carried, 5-0.

Niagara Falls Water Board

Personnel Actions and Report

Monday, September 23, 2024

Personnel Actions Sheet & Requested of the Board.
All appointments are subject to the appointee meeting the minimum qualifications and all applicable civil service conditions.

A. PERSONNEL ACTIONS RECOMMEND TO HIRE

Line Item Number	Position	Department/Location	Pay Rate or Grade	ADDITIONAL INFORMATION
1	Operator Trainee (2)	WWTP Operations	$20.36-$22.48/hr	To fill two vacancies.
2	Operator Trainee	WTP Operations	$20.36-$22.48/hr	Anticipated vacancy if Trainee meets qualifications and is transferred to WTP CMM position.
3	Environmental Lab Director	WTP Lab	$36.26-$48.90/hr	To fill vacancy from resignation below.
4	Systems Engineer	IT Department	$31.97-$45.51/hr	To fill vacancy from resignation below.
5	Meter Technician	Meter Shop	$19.87-$25.45	To fill vacancy from termination below.

B. RECOMMENDED PROMOTION / MOVE / APPOINTMENT

Line Item Number	Name and Position	Type of labor move	Change in pay rate or grade	ADDITIONAL INFORMATION

C. PREVIOUSLY TABLED PERSONNEL ACTIONS

Line Item Number	Action and Position	Department/Location	Pay Rate or Grade	ADDITIONAL INFORMATION

D. OTHER PERSONNEL ACTIVITY FOR BOARD NOTIFICATION

Name	Position	Department/Location	Pay Rate	ADDITIONAL INFORMATION
Artez Houston	Operator Trainee	WWTP Operations	$23.95/hr	Deceased 8/24/2024
Jordan Boyd	Environmental Lab Director	WTP Lab	$44.44/hr	Resigned effective 9/13/24
Clayton Hotchkiss	Systems Engineer	IT Department	$42.55/hr	Resigned effective 8/9/24
Lecheay Renford	Meter Technician	Meter Shop	$19.87/hr	Terminated 8/29/24

E. PERSONNEL ON LONG TERM LEAVE OF ABSENCE

Name	Last Day Worked	Dept.	Return Status	Comments

Revenue Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund **FA - Water Board - Water**										
	REVENUE									
Departmental Income										
2122.001	Visual Inspections	45,000.00	.00	45,000.00	3,780.00	.00	31,242.50	13,757.50	69	29,067.50
2140.001	District 1	2,101,006.00	.00	2,101,006.00	1,503.40	.00	1,525,180.53	575,825.47	73	871,734.68
2140.002	District 2	2,546,082.00	.00	2,546,082.00	617,569.05	.00	1,794,978.24	751,103.76	70	1,239,652.84
2140.003	District 3	1,909,562.00	.00	1,909,562.00	1,128.44	.00	947,301.40	962,260.60	50	622,756.59
2140.004	Non-Resident	42,000.00	.00	42,000.00	11,408.74	.00	34,764.00	7,236.00	83	28,144.57
2140.005	Industrial	3,591,522.00	.00	3,591,522.00	1,125.00	.00	2,090,928.81	1,500,593.19	58	975,896.65
2140.006	Industrial SIU	3,189,405.00	.00	3,189,405.00	.00	.00	2,008,890.30	1,180,514.70	63	1,361,314.73
2140.008	Hydrant Usage	6,000.00	.00	6,000.00	58.24	.00	380.80	5,619.20	6	2,295.81
2140.599	Miscellaneous Departmental Incom	5,000.00	.00	5,000.00	.00	.00	1,059.39	3,940.61	21	6,857.28
2141.000	Allowance for Unpaid Trfd	(200,000.00)	.00	(200,000.00)	.00	.00	74,302.20	(274,302.20)	-37	53,274.06
2144.003	Fire Service	91,000.00	.00	91,000.00	.00	.00	.00	91,000.00	0	.00
2144.005	Service Charge	455,000.00	.00	455,000.00	32,583.20	.00	310,269.80	144,730.20	68	313,494.11
2144.006	Lab Analysis	35,000.00	.00	35,000.00	1,405.50	.00	11,156.00	23,844.00	32	17,926.57
2144.008	Missing Meter Charge	20,000.00	.00	20,000.00	3,952.37	.00	17,831.37	2,168.63	89	16,291.50
2144.009	Mtr Install/Reinstall/Reactivate	5,000.00	.00	5,000.00	200.00	.00	3,000.00	2,000.00	60	2,600.00
2144.010	Final Meter Read/Inspect	18,000.00	.00	18,000.00	1,550.00	.00	11,050.00	6,950.00	61	10,500.00
2144.012	Backflow Certification	7,500.00	.00	7,500.00	2,445.70	.00	10,396.37	(2,896.37)	139	4,835.00
2148.001	District 1	92,942.00	.00	92,942.00	(35.00)	.00	37,410.20	55,531.80	40	69,737.17
2148.002	District 2	65,340.00	.00	65,340.00	(92.81)	.00	22,981.11	42,358.89	35	42,427.39
2148.003	District 3	65,561.00	.00	65,561.00	.00	.00	61,997.36	3,563.64	95	64,783.52
2148.004	Non-Resident	1,000.00	.00	1,000.00	.00	.00	1,234.81	(234.81)	123	584.62
2148.005	Industrial	25,000.00	.00	25,000.00	.00	.00	9,107.87	15,892.13	36	20,033.96
2148.006	Industrial SIU	7,638.00	.00	7,638.00	.00	.00	37.98	7,600.02	0	.00
2148.599	Penalty - Miscellaneous	1,500.00	.00	1,500.00	.00	.00	(22.71)	1,522.71	-2	.24
	Departmental Income Totals	$14,126,058.00	$0.00	$14,126,058.00	$678,581.83	$0.00	$9,005,478.33	$5,120,579.67	64%	$5,754,208.79
Intergovernmental Charges										
2230.A	City of Niag Falls-Generl	230,102.00	.00	230,102.00	.00	.00	.00	230,102.00	0	.00
	Intergovernmental Charges Totals	$230,102.00	$0.00	$230,102.00	$0.00	$0.00	$0.00	$230,102.00	0%	$0.00
Use Of Money & Property										
2401.000	Interest Earnings	200,000.00	.00	200,000.00	.00	.00	116,356.28	83,643.72	58	196,107.86
	Use Of Money & Property Totals	$200,000.00	$0.00	$200,000.00	$0.00	$0.00	$116,356.28	$83,643.72	58%	$196,107.86
Licenses And Permits										
2550.006	Cellular Towers	210,000.00	.00	210,000.00	25,883.39	.00	118,766.79	91,233.21	57	141,248.55
2590.004	Hydrant Permits & Rentals	9,000.00	.00	9,000.00	21.00	.00	1,220.72	7,779.28	14	4,131.92
	Licenses And Permits Totals	$219,000.00	$0.00	$219,000.00	$25,904.39	$0.00	$119,987.51	$99,012.49	55%	$145,380.47
Sale Of Prop/Cmp For Loss										
2650.000	Sale Of Scrap	5,000.00	.00	5,000.00	.00	.00	.00	5,000.00	0	2,799.64
2665.000	Sale-Equipment	2,723.00	.00	2,723.00	.00	.00	.00	2,723.00	0	.00

Revenue Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund **FA - Water Board - Water**										
	REVENUE									
	Sale Of Prop/Cmp For Loss Totals	$7,723.00	$0.00	$7,723.00	$0.00	$0.00	$0.00	$7,723.00	0%	$2,799.64
Misc Local Sources										
2701.000	Refund Appro Exp Prior Yr	.00	.00	.00	.00	.00	428.89	(428.89)	+++	(13,162.74)
2770.001	NSF Check Charge	8,000.00	.00	8,000.00	910.00	.00	7,455.00	545.00	93	7,630.00
2770.599	Undesignated	8,000.00	.00	8,000.00	1,756.98	.00	3,086.87	4,913.13	39	1,483.06
	Misc Local Sources Totals	$16,000.00	$0.00	$16,000.00	$2,666.98	$0.00	$10,970.76	$5,029.24	69%	($4,049.68)
Interfund Revenues										
2801.GA	Interfd Rev WtrBd-Sewr	.00	.00	.00	.00	.00	35,770.43	(35,770.43)	+++	104,736.46
	Interfund Revenues Totals	$0.00	$0.00	$0.00	$0.00	$0.00	$35,770.43	($35,770.43)	+++	$104,736.46
	REVENUE TOTALS	$14,798,883.00	$0.00	$14,798,883.00	$707,153.20	$0.00	$9,288,563.31	$5,510,319.69	63%	$6,199,183.54
	Fund **FA - Water Board - Water** Totals	$14,798,883.00	$0.00	$14,798,883.00	$707,153.20	$0.00	$9,288,563.31	$5,510,319.69		$6,199,183.54

Revenue Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund **GA - Water Board - Sewer**										
	REVENUE									
Departmental Income										
2120.001	District 1	2,840,321.00	.00	2,840,321.00	1,956.90	.00	2,033,129.08	807,191.92	72	1,160,706.01
2120.002	District 2	3,329,002.00	.00	3,329,002.00	821,201.26	.00	2,385,942.35	943,059.65	72	1,650,762.48
2120.003	District 3	2,605,234.00	.00	2,605,234.00	1,501.29	.00	1,265,106.13	1,340,127.87	49	828,565.65
2120.005	Industrial CSIRU	4,629,652.00	.00	4,629,652.00	.00	.00	2,805,222.61	1,824,429.39	61	1,203,911.15
2120.006	Industrial SIU	12,000,000.00	.00	12,000,000.00	1,027,987.46	.00	5,657,166.73	6,342,833.27	47	6,032,950.63
2120.008	Hydrant Usage	10,000.00	.00	10,000.00	77.09	.00	504.05	9,495.95	5	3,101.67
2120.102	Town Of Niagara	688,434.00	.00	688,434.00	.00	.00	870,832.15	(182,398.15)	126	704,844.31
2122.001	Visual Inspections	.00	.00	.00	.00	.00	.00	.00	+++	(60.00)
2122.002	Dye Tests	50,000.00	.00	50,000.00	3,780.00	.00	31,142.50	18,857.50	62	28,927.50
2128.001	District 1	124,420.00	.00	124,420.00	.00	.00	49,407.97	75,012.03	40	93,378.26
2128.002	District 2	70,017.00	.00	70,017.00	.00	.00	30,652.65	39,364.35	44	55,564.16
2128.003	District 3	86,948.00	.00	86,948.00	.00	.00	83,308.74	3,639.26	96	86,167.33
2128.005	Industrial	25,000.00	.00	25,000.00	.00	.00	13,948.79	11,051.21	56	30,156.53
2128.006	Industrial SIU	20,368.00	.00	20,368.00	.00	.00	2,948.25	17,419.75	14	6,848.59
2141.000	Allowance for Unpaid Trfd	(200,000.00)	.00	(200,000.00)	.00	.00	98,008.15	(298,008.15)	-49	67,100.84
	Departmental Income Totals	$26,279,396.00	$0.00	$26,279,396.00	$1,856,504.00	$0.00	$15,327,320.15	$10,952,075.85	58%	$11,952,925.11
Use Of Money & Property										
2401.000	Interest Earnings	200,000.00	.00	200,000.00	.00	.00	116,356.28	83,643.72	58	196,107.88
	Use Of Money & Property Totals	$200,000.00	$0.00	$200,000.00	$0.00	$0.00	$116,356.28	$83,643.72	58%	$196,107.88
Licenses And Permits										
2590.006	SIU 5-Yr Permits	4,600.00	.00	4,600.00	.00	.00	250.00	4,350.00	5	500.00
	Licenses And Permits Totals	$4,600.00	$0.00	$4,600.00	$0.00	$0.00	$250.00	$4,350.00	5%	$500.00
Fines And Forfeits										
2620.000	Forfeitures Of Deposits	500.00	.00	500.00	.00	.00	.00	500.00	0	.00
	Fines And Forfeits Totals	$500.00	$0.00	$500.00	$0.00	$0.00	$0.00	$500.00	0%	$0.00
Sale Of Prop/Cmp For Loss										
2650.000	Sale Of Scrap	5,000.00	.00	5,000.00	.00	.00	6,266.02	(1,266.02)	125	807.36
	Sale Of Prop/Cmp For Loss Totals	$5,000.00	$0.00	$5,000.00	$0.00	$0.00	$6,266.02	($1,266.02)	125%	$807.36
Misc Local Sources										
2701.000	Refund Appro Exp Prior Yr	.00	.00	.00	.00	.00	(77.09)	77.09	+++	(21,788.61)
2770.599	Undesignated	25,000.00	.00	25,000.00	.00	.00	22,369.77	2,630.23	89	21,657.34
	Misc Local Sources Totals	$25,000.00	$0.00	$25,000.00	$0.00	$0.00	$22,292.68	$2,707.32	89%	($131.27)
Interfund Revenues										
2801.F	Interfd Rev Fr Water	.00	.00	.00	.00	.00	219,446.88	(219,446.88)	+++	256,732.79
	Interfund Revenues Totals	$0.00	$0.00	$0.00	$0.00	$0.00	$219,446.88	($219,446.88)	+++	$256,732.79
	REVENUE TOTALS	$26,514,496.00	$0.00	$26,514,496.00	$1,856,504.00	$0.00	$15,691,932.01	$10,822,563.99	59%	$12,406,941.87
	Fund **GA - Water Board - Sewer** Totals	$26,514,496.00	$0.00	$26,514,496.00	$1,856,504.00	$0.00	$15,691,932.01	$10,822,563.99		$12,406,941.87

Revenue Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund **VFG - Plant Fund**										
	REVENUE									
Use Of Money & Property										
2401.000	Interest Earnings	700,000.00	.00	700,000.00	.00	.00	189,830.53	510,169.47	27	672,597.76
	Use Of Money & Property Totals	$700,000.00	$0.00	$700,000.00	$0.00	$0.00	$189,830.53	$510,169.47	27%	$672,597.76
Proceeds Of Obligations										
4990.000	Grant Revenue	.00	.00	.00	.00	.00	665,902.23	(665,902.23)	+++	751,939.87
	Proceeds Of Obligations Totals	$0.00	$0.00	$0.00	$0.00	$0.00	$665,902.23	($665,902.23)	+++	$751,939.87
	REVENUE TOTALS	$700,000.00	$0.00	$700,000.00	$0.00	$0.00	$855,732.76	($155,732.76)	122%	$1,424,537.63
	Fund **VFG - Plant Fund** Totals	$700,000.00	$0.00	$700,000.00	$0.00	$0.00	$855,732.76	($155,732.76)		$1,424,537.63
	Grand Totals	$42,013,379.00	$0.00	$42,013,379.00	$2,563,657.20	$0.00	$25,836,228.08	$16,177,150.92		$20,030,663.04

Expense Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund **FGB - Water Board**										
	EXPENSE									
Contractual Expenses										
0419.599	Undesignated Supplies	6,750.00	.00	6,750.00	2,232.01	.00	5,396.63	1,353.37	80	3,938.91
0451.000	Consultants	160,000.00	.00	160,000.00	15,062.50	.00	61,641.42	98,358.58	39	58,205.00
0454.000	Attorney Services	100,000.00	.00	100,000.00	2,236.50	.00	9,632.56	90,367.44	10	17,047.34
0459.000	Auditors	24,000.00	.00	24,000.00	.00	.00	.00	24,000.00	0	27,643.75
0461.000	Postage	250.00	.00	250.00	.00	.00	.00	250.00	0	.00
0463.000	Travel & Training Expense	40,000.00	.00	40,000.00	.00	.00	673.21	39,326.79	2	.00
0466.000	Books,Mags. & Memberships	7,000.00	.00	7,000.00	.00	.00	4,967.30	2,032.70	71	5,758.54
	Contractual Expenses Totals	$338,000.00	$0.00	$338,000.00	$19,531.01	$0.00	$82,311.12	$255,688.88	24%	$112,593.54
	EXPENSE TOTALS	$338,000.00	$0.00	$338,000.00	$19,531.01	$0.00	$82,311.12	$255,688.88	24%	$112,593.54
	Fund **FGB - Water Board** Totals	$338,000.00	$0.00	$338,000.00	$19,531.01	$0.00	$82,311.12	$255,688.88		$112,593.54
	Grand Totals	$338,000.00	$0.00	$338,000.00	$19,531.01	$0.00	$82,311.12	$255,688.88		$112,593.54

Expense Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund	**FA - Water Board - Water**									
	EXPENSE									
Personnel Services										
0100.000	Employee Adjustment	.00	.00	.00	.00	.00	403.42	(403.42)	+++	1,093.32
0121.000	Weekly Comp Differential	.00	.00	.00	.00	.00	109.14	(109.14)	+++	125.87
0125.000	Insurance OPT Out	79,345.00	.00	79,345.00	.00	.00	46,397.24	32,947.76	58	60,342.66
0130.000	Temporary Payroll	116,000.00	.00	116,000.00	.00	.00	93,275.87	22,724.13	80	94,918.59
0140.000	Overtime	116,150.00	.00	116,150.00	.00	.00	41,552.85	74,597.15	36	69,853.81
0150.000	Acting Next-In-Rank Pay	.00	.00	.00	.00	.00	4,228.82	(4,228.82)	+++	198.44
0151.A	Sunday Contractual Pay	16,000.00	.00	16,000.00	.00	.00	.00	16,000.00	0	.00
0151.000	Sunday Premium Pay	.00	.00	.00	.00	.00	12,064.63	(12,064.63)	+++	10,173.56
0152.000	Shift Premium Pay	.00	.00	.00	.00	.00	1,000.00	(1,000.00)	+++	.00
0155.A	Holiday Contractual Pay	8,500.00	.00	8,500.00	.00	.00	4,566.81	3,933.19	54	3,570.53
0155.000	Holiday Pay	.00	.00	.00	.00	.00	41,282.56	(41,282.56)	+++	49,560.26
0170.000	Overtime Meals	3,015.00	.00	3,015.00	.00	.00	997.00	2,018.00	33	1,540.25
0180.000	Comp. Time Earned	.00	.00	.00	.00	.00	5,272.11	(5,272.11)	+++	7,106.91
0181.000	Vacation Pay	.00	.00	.00	.00	.00	28,717.84	(28,717.84)	+++	22,809.72
0182.000	Personal Time	.00	.00	.00	.00	.00	2,106.15	(2,106.15)	+++	1,338.77
0183.000	Compensatory Time Off	.00	.00	.00	.00	.00	65,602.89	(65,602.89)	+++	107,321.87
0184.000	Funeral Leave	.00	.00	.00	.00	.00	4,102.45	(4,102.45)	+++	4,569.68
0186.000	Call-In Time	12,350.00	.00	12,350.00	.00	.00	4,319.08	8,030.92	35	6,525.90
0189.000	Sick Leave	.00	.00	.00	.00	.00	32,623.86	(32,623.86)	+++	51,771.96
0190.000	Vacation Cash Conversion	5,765.00	.00	5,765.00	.00	.00	8,072.17	(2,307.17)	140	2,505.42
	Personnel Services Totals	$357,125.00	$0.00	$357,125.00	$0.00	$0.00	$396,694.89	($39,569.89)	111%	$495,327.52
Personnel - Position Control										
0110.000	Biweekly Payroll	2,565,429.00	.00	2,565,429.00	.00	.00	1,191,356.50	1,374,072.50	46	1,577,605.73
0153.000	Stipend	.00	.00	.00	.00	.00	.00	.00	+++	3,806.71
	Personnel - Position Control Totals	$2,565,429.00	$0.00	$2,565,429.00	$0.00	$0.00	$1,191,356.50	$1,374,072.50	46%	$1,581,412.44
Capital Outlays										
0210.000	Furniture & Furnishings	5,000.00	3,000.00	8,000.00	3,394.20	.00	4,367.61	3,632.39	55	2,082.39
0220.000	Office Equipment	3,000.00	5,000.00	8,000.00	.00	.00	4,787.61	3,212.39	60	.00
0230.000	Motor Vehicle Equipment	5,000.00	.00	5,000.00	.00	.00	1,316.65	3,683.35	26	.00
0250.000	Other Equipment	30,000.00	(10,000.00)	20,000.00	197.89	961.00	12,832.60	6,206.40	69	11,585.48
0250.007	Computer Equipment	100,000.00	.00	100,000.00	2,212.79	294.94	57,269.59	42,435.47	58	26,085.29
0250.500	Safety Equipment	7,500.00	10,000.00	17,500.00	1,033.44	.00	14,422.55	3,077.45	82	1,416.78
	Capital Outlays Totals	$150,500.00	$8,000.00	$158,500.00	$6,838.32	$1,255.94	$94,996.61	$62,247.45	61%	$41,169.94
Capital Construction										
0300.000	Capital Construction	.00	.00	.00	.00	.00	62,747.65	(62,747.65)	+++	.00
	Capital Construction Totals	$0.00	$0.00	$0.00	$0.00	$0.00	$62,747.65	($62,747.65)	+++	$0.00
Contractual Expenses										
0411.000	Office Supplies	10,200.00	.00	10,200.00	818.92	3,379.97	7,169.09	(349.06)	103	8,877.57

Expense Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund	**FA - Water Board - Water**									
	EXPENSE									
	Contractual Expenses									
0412.000	Uniforms	1,800.00	.00	1,800.00	53.90	133.72	10.30	1,655.98	8	1,118.00
0413.000	Safety Shoes	7,800.00	.00	7,800.00	142.13	.00	2,180.08	5,619.92	28	3,335.52
0414.000	Automotive-Gas,Oil,Grease	60,000.00	.00	60,000.00	8,125.74	.00	30,939.99	29,060.01	52	27,770.00
0415.000	Fuel Oil	15,000.00	.00	15,000.00	.00	.00	.00	15,000.00	0	.00
0416.000	Consumable Printed Forms	1,200.00	.00	1,200.00	.00	.00	545.00	655.00	45	906.35
0417.000	Tool Allowance	300.00	.00	300.00	.00	.00	150.00	150.00	50	35.63
0419.001	Automotive Parts	25,000.00	.00	25,000.00	4,405.11	.00	39,553.85	(14,553.85)	158	13,293.44
0419.003	Cleaning/Sanitary	6,000.00	.00	6,000.00	31.88	493.09	4,009.05	1,497.86	75	1,321.19
0419.005	Tools & Machine Parts	112,000.00	(55,000.00)	57,000.00	1,310.41	1,705.53	12,867.41	42,427.06	26	67,163.17
0419.006	Construction/Repair	160,000.00	.00	160,000.00	3,637.95	7,570.15	130,523.29	21,906.56	86	108,885.29
0419.009	Misc Chemicals	785,000.00	.00	785,000.00	62,131.74	42,410.51	397,290.74	345,298.75	56	435,693.68
0419.010	Laboratory	40,000.00	.00	40,000.00	1,315.88	2,523.99	20,918.26	16,557.75	59	25,246.73
0419.599	Undesignated Supplies	7,700.00	55,000.00	62,700.00	5,234.29	17,875.99	29,397.81	15,426.20	75	3,874.97
0421.001	Phone Extension Chgs	15,000.00	.00	15,000.00	119.19	.00	954.98	14,045.02	6	11,121.34
0421.002	Wireless Services	16,000.00	.00	16,000.00	1,548.45	.00	8,909.54	7,090.46	56	10,817.18
0422.000	Light & Power	600,000.00	.00	600,000.00	74,332.50	.00	335,400.40	264,599.60	56	361,606.65
0423.000	Water/Sewer	625,000.00	.00	625,000.00	.00	.00	35,770.43	589,229.57	6	104,736.46
0424.000	Gas	35,000.00	.00	35,000.00	635.92	.00	19,915.57	15,084.43	57	31,901.03
0432.000	Property Insurance	180,000.00	.00	180,000.00	.00	.00	.00	180,000.00	0	.00
0433.000	Liability Insurance	85,000.00	.00	85,000.00	.00	.00	109,075.46	(24,075.46)	128	98,041.03
0440.003	Motor Vehicle Equipment	70,000.00	.00	70,000.00	933.72	.00	6,787.23	63,212.77	10	35,159.52
0440.599	Undesignated Leases	1,500.00	.00	1,500.00	133.36	.00	965.59	534.41	64	721.28
0441.000	Rental Of Real Property	.00	.00	.00	.00	.00	48.00	(48.00)	+++	.00
0442.000	Rental Of Equipment	4,500.00	.00	4,500.00	10.00	.00	142.00	4,358.00	3	835.01
0442.003	Motor Vehicle Equip Rentl	.00	.00	.00	.00	.00	.00	.00	+++	2,292.50
0442.599	Undesignated Rentals	4,000.00	.00	4,000.00	133.24	342.59	1,377.41	2,280.00	43	1,445.40
0444.000	Repair Of Equipment	27,500.00	.00	27,500.00	2,305.51	2,832.01	43,737.22	(19,069.23)	169	5,070.29
0446.000	Computer Services	4,500.00	.00	4,500.00	715.27	.00	3,004.57	1,495.43	67	2,610.29
0446.008	Software Maint/Licenses	335,000.00	.00	335,000.00	10,253.29	22,973.28	179,074.31	132,952.41	60	155,562.08
0449.000	Billing & Collection	55,000.00	.00	55,000.00	4,431.79	.00	39,847.34	15,152.66	72	35,144.16
0449.001	Sludge Removal	200,000.00	.00	200,000.00	.00	.00	.00	200,000.00	0	169,720.31
0449.003	Waste Disposal	.00	.00	.00	.00	.00	.00	.00	+++	3,138.34
0449.008	Hazardous Waste Displ.	.00	.00	.00	.00	.00	.00	.00	+++	408.63
0449.500	Safety-Contractual	10,000.00	.00	10,000.00	.00	.00	.00	10,000.00	0	3,019.00
0449.599	Undesignated Services	1,036,581.00	(8,000.00)	1,028,581.00	2,610.85	593.00	745,731.67	282,256.33	73	763,133.87
0451.000	Consultants	80,000.00	.00	80,000.00	8,168.80	.00	91,584.82	(11,584.82)	114	77,808.68
0454.000	Attorney Services	60,000.00	.00	60,000.00	123.18	.00	27,915.61	32,084.39	47	7,062.70
0461.000	Postage	35,000.00	.00	35,000.00	2,908.44	.00	40,170.53	(5,170.53)	115	24,121.19

Expense Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund **FA - Water Board - Water**										
	EXPENSE									
Contractual Expenses										
0463.000	Travel & Training Expense	42,500.00	.00	42,500.00	5,255.20	4,625.00	22,218.54	15,656.46	63	9,444.03
0463.500	Safety Training	.00	.00	.00	.00	.00	550.00	(550.00)	+++	275.00
0465.000	Laundry & Cleaning	1,500.00	.00	1,500.00	.00	.00	373.06	1,126.94	25	.00
0466.000	Books,Mags. & Memberships	500.00	.00	500.00	.00	.00	201.00	299.00	40	.00
0467.000	Advertising	500.00	.00	500.00	.00	.00	167.86	332.14	34	522.34
0471.000	Recruitment Expenditures	800.00	.00	800.00	.00	.00	578.19	221.81	72	974.00
	Contractual Expenses Totals	$4,757,381.00	($8,000.00)	$4,749,381.00	$201,826.66	$107,458.83	$2,390,056.20	$2,251,865.97	53%	$2,614,213.85
Employee Benefits										
0801.000	NYS E.R.S. Retirement	262,341.00	.00	262,341.00	.00	.00	52,730.00	209,611.00	20	44,537.33
0820.000	Worker's Compensation	225,000.00	.00	225,000.00	.00	.00	3,451.84	221,548.16	2	4,106.60
0830.000	Life Insurance	10,765.00	.00	10,765.00	.00	.00	.00	10,765.00	0	7,164.05
0840.000	Unemployment Ins. NYS	10,000.00	.00	10,000.00	.00	.00	.00	10,000.00	0	.00
0860.000	Medical Insurance	1,753,435.00	.00	1,753,435.00	.00	.00	660,414.56	1,093,020.44	38	939,655.22
0861.000	Dental Insurance	54,450.00	.00	54,450.00	.00	.00	.00	54,450.00	0	.00
0863.000	Vision Care Insurance	4,450.00	.00	4,450.00	.00	.00	.00	4,450.00	0	2,447.34
0865.000	Chiropractic Insurance	3,000.00	.00	3,000.00	80.00	.00	1,730.00	1,270.00	58	1,115.00
	Employee Benefits Totals	$2,323,441.00	$0.00	$2,323,441.00	$80.00	$0.00	$718,326.40	$1,605,114.60	31%	$999,025.54
Employee Benefit - FICA										
0810.000	Social Security	223,574.00	.00	223,574.00	.00	.00	118,657.28	104,916.72	53	155,609.46
	Employee Benefit - FICA Totals	$223,574.00	$0.00	$223,574.00	$0.00	$0.00	$118,657.28	$104,916.72	53%	$155,609.46
	EXPENSE TOTALS	$10,377,450.00	$0.00	$10,377,450.00	$208,744.98	$108,714.77	$4,972,835.53	$5,295,899.70	49%	$5,886,758.75
	Fund **FA - Water Board - Water** Totals	$10,377,450.00	$0.00	$10,377,450.00	$208,744.98	$108,714.77	$4,972,835.53	$5,295,899.70		$5,886,758.75
	Grand Totals	$10,377,450.00	$0.00	$10,377,450.00	$208,744.98	$108,714.77	$4,972,835.53	$5,295,899.70		$5,886,758.75

Expense Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund	**GA - Water Board - Sewer**									
	EXPENSE									
	Personnel Services									
0100.000	Employee Adjustment	.00	.00	.00	.00	.00	1,833.68	(1,833.68)	+++	1,615.63
0121.000	Weekly Comp Differential	.00	.00	.00	.00	.00	70.30	(70.30)	+++	97.10
0125.000	Insurance OPT Out	123,466.00	.00	123,466.00	.00	.00	46,319.94	77,146.06	38	60,202.57
0130.000	Temporary Payroll	313,182.00	.00	313,182.00	.00	.00	200,503.39	112,678.61	64	307,856.85
0140.000	Overtime	223,000.00	(5,000.00)	218,000.00	.00	.00	67,319.03	150,680.97	31	122,152.59
0150.000	Acting Next-In-Rank Pay	12,480.00	.00	12,480.00	.00	.00	52,734.23	(40,254.23)	423	.00
0151.A	Sunday Contractual Pay	51,000.00	.00	51,000.00	.00	.00	.00	51,000.00	0	.00
0151.000	Sunday Premium Pay	.00	.00	.00	.00	.00	23,335.49	(23,335.49)	+++	31,094.55
0155.A	Holiday Contractual Pay	33,500.00	.00	33,500.00	.00	.00	15,148.88	18,351.12	45	15,455.83
0155.000	Holiday Pay	.00	.00	.00	.00	.00	30,989.12	(30,989.12)	+++	39,953.38
0165.000	Military Leave	.00	.00	.00	.00	.00	4,464.35	(4,464.35)	+++	12,754.67
0170.000	Overtime Meals	8,200.00	.00	8,200.00	.00	.00	1,815.00	6,385.00	22	3,268.25
0180.000	Comp. Time Earned	.00	.00	.00	.00	.00	6,461.34	(6,461.34)	+++	7,300.84
0181.000	Vacation Pay	.00	.00	.00	.00	.00	38,942.09	(38,942.09)	+++	8,817.58
0182.000	Personal Time	.00	.00	.00	.00	.00	3,860.25	(3,860.25)	+++	1,272.91
0183.000	Compensatory Time Off	.00	.00	.00	.00	.00	63,289.00	(63,289.00)	+++	100,353.98
0184.000	Funeral Leave	.00	.00	.00	.00	.00	2,639.70	(2,639.70)	+++	1,500.50
0186.000	Call-In Time	25,000.00	.00	25,000.00	.00	.00	7,780.60	17,219.40	31	13,596.48
0189.000	Sick Leave	.00	.00	.00	.00	.00	37,856.56	(37,856.56)	+++	40,642.05
	Personnel Services Totals	$789,828.00	($5,000.00)	$784,828.00	$0.00	$0.00	$605,362.95	$179,465.05	77%	$767,935.76
	Personnel - Position Control									
0110.000	Biweekly Payroll	3,216,385.00	.00	3,216,385.00	.00	.00	1,150,851.36	2,065,533.64	36	1,457,562.75
	Personnel - Position Control Totals	$3,216,385.00	$0.00	$3,216,385.00	$0.00	$0.00	$1,150,851.36	$2,065,533.64	36%	$1,457,562.75
	Capital Outlays									
0210.000	Furniture & Furnishings	3,000.00	.00	3,000.00	2,564.85	.00	2,564.85	435.15	85	11,567.96
0250.500	Safety Equipment	10,000.00	.00	10,000.00	.00	.00	7,346.83	2,653.17	73	8,992.58
	Capital Outlays Totals	$13,000.00	$0.00	$13,000.00	$2,564.85	$0.00	$9,911.68	$3,088.32	76%	$20,560.54
	Capital Construction									
0300.000	Capital Construction	.00	.00	.00	.00	.00	.00	.00	+++	72,287.96
	Capital Construction Totals	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	+++	$72,287.96
	Contractual Expenses									
0411.000	Office Supplies	3,050.00	.00	3,050.00	.00	.00	217.26	2,832.74	7	1,551.92
0412.000	Uniforms	2,940.00	.00	2,940.00	.00	.00	239.56	2,700.44	8	2,742.47
0413.000	Safety Shoes	11,000.00	.00	11,000.00	732.97	.00	5,811.62	5,188.38	53	3,870.82
0414.000	Automotive-Gas,Oil,Grease	50,000.00	.00	50,000.00	7,202.74	.00	30,152.73	19,847.27	60	32,185.45
0416.000	Consumable Printed Forms	1,200.00	.00	1,200.00	.00	.00	545.00	655.00	45	34.00
0417.000	Tool Allowance	300.00	.00	300.00	.00	.00	300.00	.00	100	300.00
0419.001	Automotive Parts	30,000.00	.00	30,000.00	4,405.11	.00	40,678.75	(10,678.75)	136	7,138.18

Expense Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund	**GA - Water Board - Sewer**									
	EXPENSE									
	Contractual Expenses									
0419.003	Cleaning/Sanitary	10,000.00	.00	10,000.00	362.74	853.65	2,039.73	7,106.62	29	3,199.46
0419.004	Agricultural/Botanical	50,000.00	.00	50,000.00	.00	.00	.00	50,000.00	0	.00
0419.005	Tools & Machine Parts	187,000.00	(2,200.00)	184,800.00	11,909.71	28,484.05	87,959.88	68,356.07	63	96,530.22
0419.006	Construction/Repair	130,000.00	.00	130,000.00	19,806.43	16,170.53	91,337.51	22,491.96	83	91,375.73
0419.008	Signals/Communication	5,000.00	.00	5,000.00	.00	.00	.00	5,000.00	0	1,936.60
0419.009	Misc Chemicals	25,000.00	.00	25,000.00	6,762.25	1,760.02	19,392.88	3,847.10	85	11,747.75
0419.010	Laboratory	30,000.00	.00	30,000.00	4,380.70	3,577.79	23,719.65	2,702.56	91	11,095.12
0419.012	Carbon	600,000.00	.00	600,000.00	.00	.00	145,575.54	454,424.46	24	.00
0419.014	Ferric Chloride	700,000.00	.00	700,000.00	54,493.04	75,371.16	402,317.92	222,310.92	68	473,376.64
0419.016	Primary Polymer	100,000.00	.00	100,000.00	.00	27,692.00	22,308.00	50,000.00	50	22,308.00
0419.017	Sludge Polymer	90,000.00	.00	90,000.00	.00	45,000.00	.00	45,000.00	50	34,452.00
0419.018	Pebble Lime	220,000.00	.00	220,000.00	15,440.16	53,439.32	97,697.22	68,863.46	69	84,028.33
0419.024	Hypochlorite Solution	6,500,000.00	.00	6,500,000.00	729,971.06	1,531,583.07	3,058,312.65	1,910,104.28	71	3,002,906.66
0419.599	Undesignated Supplies	64,200.00	10,000.00	74,200.00	6,288.47	5,244.70	33,451.12	35,504.18	52	18,787.87
0421.001	Phone Extension Chgs	34,000.00	.00	34,000.00	2,355.72	.00	15,717.40	18,282.60	46	27,696.47
0421.002	Wireless Services	11,000.00	.00	11,000.00	768.57	.00	5,754.89	5,245.11	52	5,929.98
0422.000	Light & Power	695,000.00	.00	695,000.00	103,260.69	.00	445,478.40	249,521.60	64	428,926.44
0423.000	Water/Sewer	595,000.00	.00	595,000.00	.00	.00	219,946.88	375,053.12	37	256,964.62
0424.000	Gas	25,000.00	.00	25,000.00	.00	.00	10,644.14	14,355.86	43	15,599.80
0432.000	Property Insurance	245,000.00	.00	245,000.00	.00	.00	.00	245,000.00	0	.00
0433.000	Liability Insurance	120,000.00	.00	120,000.00	.00	.00	153,724.56	(33,724.56)	128	142,871.35
0440.003	Motor Vehicle Equipment	70,000.00	.00	70,000.00	933.70	.00	6,787.17	63,212.83	10	35,159.45
0440.599	Undesignated Leases	1,500.00	.00	1,500.00	52.58	.00	959.12	540.88	64	460.04
0441.000	Rental Of Real Property	75.00	.00	75.00	.00	.00	82.00	(7.00)	109	.00
0442.000	Rental Of Equipment	19,500.00	(2,500.00)	17,000.00	10.00	.00	142.00	16,858.00	1	10,798.86
0442.003	Motor Vehicle Equip Rentl	10,000.00	.00	10,000.00	.00	.00	.00	10,000.00	0	1,834.00
0442.599	Undesignated Rentals	5,000.00	.00	5,000.00	.00	1,496.30	1,168.70	2,335.00	53	1,851.65
0443.000	Repair Of Real Property	40,500.00	.00	40,500.00	840.46	326.50	11,119.40	29,054.10	28	19,673.11
0444.000	Repair Of Equipment	245,000.00	(5,000.00)	240,000.00	11,064.37	39,031.91	68,903.74	132,064.35	45	113,684.44
0446.000	Computer Services	4,500.00	.00	4,500.00	715.27	.00	2,871.25	1,628.75	64	2,962.28
0446.007	Software	50,000.00	.00	50,000.00	.00	.00	.00	50,000.00	0	.00
0449.000	Billing & Collection	55,000.00	.00	55,000.00	4,431.79	.00	39,847.33	15,152.67	72	35,144.08
0449.002	Sludge Disposal	2,000,000.00	.00	2,000,000.00	196,587.66	48,529.04	951,470.96	1,000,000.00	50	1,216,655.61
0449.004	Special Security	.00	.00	.00	.00	.00	70.00	(70.00)	+++	.00
0449.008	Hazardous Waste Displ.	500.00	15,000.00	15,500.00	.00	1,303.53	13,696.47	500.00	97	.00
0449.500	Safety-Contractual	10,000.00	.00	10,000.00	.00	.00	2,201.00	7,799.00	22	343.00
0449.599	Undesignated Services	445,340.00	(15,700.00)	429,640.00	9,246.80	3,027.00	88,369.88	338,243.12	21	140,364.10
0451.000	Consultants	100,000.00	3,200.00	103,200.00	10,225.71	.00	104,462.81	(1,262.81)	101	80,984.51

Expense Budget Performance Report

Fiscal Year to Date 08/31/24
Exclude Rollup Account

Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year YTD
Fund **GA - Water Board - Sewer**										
	EXPENSE									
Contractual Expenses										
0454.000	Attorney Services	40,000.00	.00	40,000.00	123.17	.00	27,915.58	12,084.42	70	7,062.70
0461.000	Postage	35,000.00	.00	35,000.00	2,385.71	.00	39,453.65	(4,453.65)	113	23,926.35
0463.000	Travel & Training Expense	22,000.00	2,200.00	24,200.00	.00	.00	13,045.30	11,154.70	54	1,006.82
0463.500	Safety Training	1,000.00	.00	1,000.00	.00	.00	550.00	450.00	55	275.00
0465.000	Laundry & Cleaning	9,500.00	.00	9,500.00	.00	4,355.62	3,144.38	2,000.00	79	5,351.59
0466.000	Books,Mags. & Memberships	7,500.00	.00	7,500.00	.00	.00	2,404.00	5,096.00	32	2,010.00
0467.000	Advertising	500.00	.00	500.00	.00	.00	167.85	332.15	34	522.33
0471.000	Recruitment Expenditures	800.00	.00	800.00	.00	.00	867.18	(67.18)	108	358.00
	Contractual Expenses Totals	$13,707,905.00	$5,000.00	$13,712,905.00	$1,204,757.58	$1,887,246.19	$6,293,023.06	$5,532,635.75	60%	$6,477,983.80
Employee Benefits										
0801.000	NYS E.R.S. Retirement	524,681.00	.00	524,681.00	.00	.00	105,459.00	419,222.00	20	89,074.67
0803.000	Building Trades Benefits	150,000.00	.00	150,000.00	28,443.01	.00	185,023.32	(35,023.32)	123	155,930.38
0820.000	Worker's Compensation	240,000.00	.00	240,000.00	.00	.00	5,239.80	234,760.20	2	5,945.54
0830.000	Life Insurance	13,732.00	.00	13,732.00	.00	.00	.00	13,732.00	0	9,495.98
0840.000	Unemployment Ins. NYS	10,000.00	.00	10,000.00	.00	.00	.00	10,000.00	0	.00
0860.000	Medical Insurance	2,732,850.00	.00	2,732,850.00	.00	.00	1,017,585.28	1,715,264.72	37	1,510,787.40
0861.000	Dental Insurance	85,500.00	.00	85,500.00	.00	.00	.00	85,500.00	0	.00
0863.000	Vision Care Insurance	6,254.00	.00	6,254.00	.00	.00	.00	6,254.00	0	3,634.06
0865.000	Chiropractic Insurance	1,400.00	.00	1,400.00	.00	.00	140.00	1,260.00	10	350.00
	Employee Benefits Totals	$3,764,417.00	$0.00	$3,764,417.00	$28,443.01	$0.00	$1,313,447.40	$2,450,969.60	35%	$1,775,218.03
Employee Benefit - FICA										
0810.000	Social Security	306,093.00	.00	306,093.00	.00	.00	131,172.28	174,920.72	43	165,664.98
	Employee Benefit - FICA Totals	$306,093.00	$0.00	$306,093.00	$0.00	$0.00	$131,172.28	$174,920.72	43%	$165,664.98
	EXPENSE TOTALS	$21,797,628.00	$0.00	$21,797,628.00	$1,235,765.44	$1,887,246.19	$9,503,768.73	$10,406,613.08	52%	$10,737,213.82
	Fund **GA - Water Board - Sewer** Totals	$21,797,628.00	$0.00	$21,797,628.00	$1,235,765.44	$1,887,246.19	$9,503,768.73	$10,406,613.08		$10,737,213.82
	Grand Totals	$21,797,628.00	$0.00	$21,797,628.00	$1,235,765.44	$1,887,246.19	$9,503,768.73	$10,406,613.08		$10,737,213.82

MONTHLY OPERATIONS & MAINTENANCE REPORT

August 2024

NIAGARA FALLS WATER BOARD

NIAGARA FALLS WATER BOARD
Monthly O&M Report
for the Month of August 2024

I. Treatment & Plant Maintenance

A. Water – Robert Rowe, updated 09-10-2024.

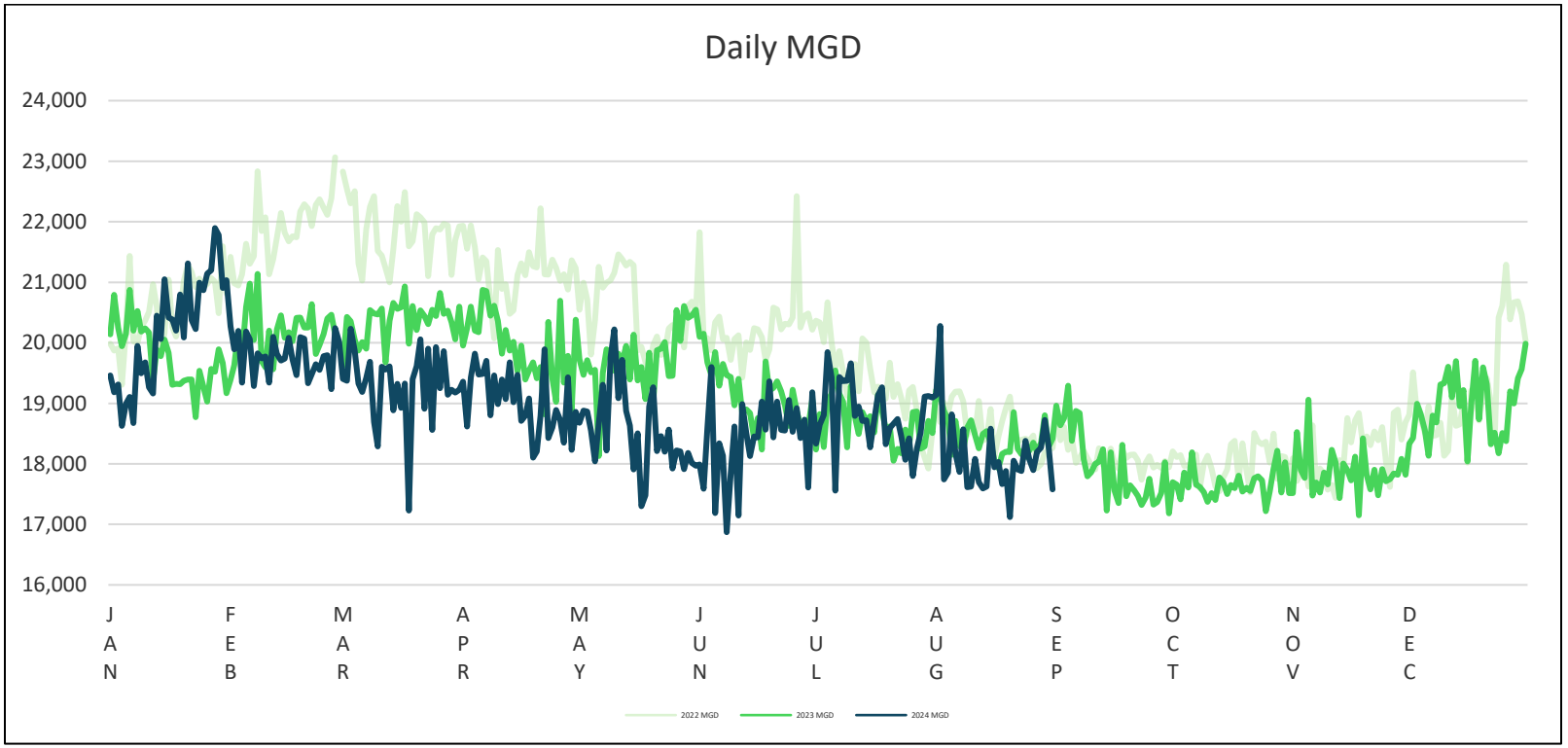
1. Water Production Data

Total water production for the month of July was 582 million gallons, and August was 561 million. The average daily water production was 18.8 million gallons in July, and 18.1 million in August. The plant data summary table is included below for your reference.

2024 TOTALS AND AVERAGES

	R/W PUMPAGE	PRE CL2 LBS	PACL LBS	H2SiF6 LBS	PO4 LBS	POST CL2 LBS	F/W 1000 GAL/ DAY
JAN	626086	6773	137700	15135	3359	3962	20196
FEB	573789	5766	112600	13737	3084	3528	19786
MAR	598173	5810	104900	14181	3145	3758	19296
APR	570863	6809	116300	13892	2906	3517	19029
MAY	574754	7392	96800	13753	2989	3551	18540
JUN	552396	7751	88000	13155	2854	3618	18413
JUL	582177	9042	92200	13734	2952	3914	18780
AUG	561142	9562	91200	13200	2898	3252	18101
SEP	0	0	0	0	0	0	0
OCT	0	0	0	0	0	0	0
NOV	0	0	0	0	0	0	0
DEC	0	0	0	0	0	0	0
TOTAL	4639380	58905	839700	110787	24187	29100	152142

Chart Comparing Daily Finished Water Flows, 2023 Versus Past Years



2024 ANALYTICAL RESULTS

	RAW TURB NTU	RAW pH	PRE Cl2 RES.mg/l	POST Cl2 RES.mg/l	EFF TURB NTU	EFF pH	F. RES mg/l
JAN	9.0	8.0	0.55	1.25	0.034	7.6	0.69
FEB	8.3	8.1	0.55	1.23	0.031	7.6	0.68
MAR	4.6	8.1	0.54	1.24	0.035	7.6	0.67
APR	4.2	8.0	0.54	1.24	0.041	7.6	0.72
MAY	1.4	7.9	0.54	1.24	0.030	7.5	0.70
JUN	1.8	7.9	0.53	1.25	0.033	7.5	0.72
JUL	1.0	8.0	0.50	1.26	0.030	7.5	0.73
AUG	1.0	8.1	0.52	1.25	0.034	7.6	0.73
SEP							
OCT							
NOV							
DEC							
AVG	3.9	8.0	0.53	1.24	0.033	7.5	0.71

2. Water Plant Operations and Maintenance Highlights

Work continues on the new chlorine scrubber installation, and the project is going very well, minus some light delays on equipment.

Freeze Thaw Beds #2 and #3 are currently being cleaned/emptied.

The Emergency Backup Generator project is underway, with upgrades to engine, switchgear, and transfer switch controls to give us greatly improved control and functionality of the system. We are working on scheduling final testing now.

High Lift Pump # 2 is now back in service and running very well after a rebuild of the pump and motor by Moley Magnetics.

3. Water Plant Maintenance Planning

This list of larger projects/needs is limited to items that remain in the planning stage; when a comprehensive plan to address has been developed it will be removed.

Priority Levels: High Medium Low

a) Bulk Chemical Storage Tank Liners Medium
PACL liner replacement completed, and new liner for fluoride tank is in house. Contractor requested safety analysis prior to completing fluoride liner replacement.

- Working to obtain quotes from contractors to perform full scope of work.

b) Backflow Preventers High

Need to be tested and repaired/replaced yearly and as necessary.

- Danforth inspected in 2024, some backflow devices could not be tested without losing chlorine capabilities.
- Now that chlorine booster pump project is complete, the next step will be to evaluate the personnel and equipment needed as well as the various parts to address any issues found, goal will be to minimize time the pipe must be isolated.

c) Painting of Sedimentation Plates, Filter Walls: Medium

These items are large projects because of need to work in filter area.

d) Settling Plate and/or Filter Upgrades: Low

Would increase efficiency during higher rates of flow to allow us to better keep up with demanding winter months and large main breaks. This could reduce water used for filter washing (and therefore discharge flow to WWTP or freeze-thaw beds).

- Plastic portions of settling plates have been flaking off, and a large sheet of material detached from a plate in 8/2023.

e) Filter # 1 Broken Wash Water Trough: High

f) Automatic Switchover Valve for Chlorine Feed System: High

Currently not functioning, but due for replacement, replacement on order 08/2024

g) Low Lift #2 Check Valve Flange: Medium

Leaking.

B. Wastewater – Dennis Kirkland, updated 09-06-2024.

1. Operations Data

a) Current Year to Date

WASTEWATER TREATMENT PLANT OPERATING DATA														
2024	**FLOWS**			**Chlorine**	**Rainfall**	**SLUDGE**		**Polymer**		**FeCl3**	**LIME**	**H2O2**	**NaOCl**	**Grit**
	EFF	CBE	GPS	**Residual**		NET	LANDFILL	BFP	PRIM					
MONTH	MGD	MGD	MGD	PPM	inches	(Tons)		(Lbs)		(gals.)	(Tons)	(gals.)	(gals.)	(Tons)
January	31.20	46.37	13.97	1.3	2.2	1281.0	425.0	1611.0	2389.0	20570	32.1	0	166690	32.9
February	22.09	34.88	11.47	1.2	0.3	948.0	283.0	1479.0	2096.0	15700	34.5	0	153390	27.7
March	22.60	36.95	11.16	1.3	0.6	1028.0	293.0	1372.0	1938.0	17620	28.7	0	198480	18.3
April	29.39	43.97	13.60	1.3	2.6	1008.0	313.0	1586.0	1882.0	21080	47.4	0	169600	14.4
May	20.75	34.64	11.18	1.3	1.6	949.0	245.0	1578.0	1776.0	16820	34.9	0	223120	40.8
June	24.92	39.46	12.38	1.3	4.0	900.0	276.0	1550.0	1697.0	17740	37.6	0	284640	19.2
July	23.19	36.92	12.35	1.1	3.8	1014.0	294.0	2050.0	2062.0	16920	63.3	0	393030	20.2
August	20.88	32.28	11.77	0.9	2.2	781.0	215.0	2264.0	1596.0	19160	65.3	0	399080	20.5
September												0		
October												0		
November												0		
December												0		
Totals	**24.38**	**38.18**	**12.24**	**1.2**	**17.2**	**7909.0**	**2344.0**	**13490.0**	**15436.0**	**145610**	**343.8**	**0**	**1988030**	**194.0**

Explanation of data abbreviations:

INF: Influent
EFF: Effluent
CBE Carbon Bed Effluent
GPS: Gorge Pump Station
MGD: Millions of Gallons per Day
PPM: Parts Per Million
BFP: Belt Filter Press
PRIM: Primary
FeC13: Ferric Chloride
H2O2: Peroxide
NaOCl: Sodium Hypochlorite

b) Previous Year Data for Comparison Purposes

WASTEWATER TREATMENT PLANT OPERATING DATA														
2023		**FLOWS**		**Chlorine**	**Rainfall**	**SLUDGE**		**Polymer**		**FeCl3**	**LIME**	**H2O2**	**NaOCl**	**Grit**
	EFF	CBE	GPS	**Residual**		NET	LANDFILL	BFP	PRIM					
MONTH	MGD	MGD	MGD	PPM	inches	(Tons)		(Lbs)		(gals.)	(Tons)	(gals.)	(gals.)	(Tons)
January	29.84	46.43	14.12	1.7	0.7	1360.0	365.0	1029.0	2389.0	19690	39.7	0	198850	31.9
February	24.78	42.82	13.82	1.6	1.0	1092.0	319.0	575.0	2139.0	16920	23.3	0	175760	26.8
March	33.05	48.46	15.03	1.5	1.6	1487.0	401.0	1408.0	2475.0	22820	46.5	0	242440	34.1
April	28.34	42.67	13.48	1.5	2.7	1378.0	386.0	1317.0	2235.0	21090	51.3	0	139155	17.4
May	20.74	33.68	11.71	1.6	0.5	1476.0	373.0	2098.0	2059.0	18180	47.8	0	126660	4.6
June	19.81	31.45	11.43	1.6	1.5	1351.0	372.0	1664.0	2012.0	18860	49.2	0	103180	19.2
July	23.41	36.91	12.55	1.4	3.4	1313.0	344.0	1943.0	2192.0	19240	54.7	0	153350	16.3
August	22.31	35.92	12.24	1.5	2.0	1383.0	367.0	1378.0	1859.0	17780	36.5	0	159490	14.0
Septembe	19.43	30.39	10.92	1.3	1.4	689.0	203.0	1247.0	2034.0	14460	37.2	0	250120	10.9
October	20.18	30.50	11.03	1.3	1.2	759.0	226.0	1432.0	2143.0	15850	37.4	0	188250	11.6
Novembe	19.98	30.65	10.83	1.6	1.1	1029.0	292.0	1467.0	2201.0	15640	38.1	0	172040	12.0
Decembe	27.08	39.77	12.82	1.5	1.7	996.0	309.0	1476.0	2312.0	18590	38.7	0	156270	13.2
Totals	**24.08**	**37.47**	**12.50**	**1.5**	**18.7**	**14313.0**	**3957.0**	**17034.0**	**26050.0**	**219120**	**500.4**	**0**	**2065565**	**212.0**

2. Sampling Notes

There were no concerns or other items to note with respect to sampling for this reporting period.

3. Capital Projects

Project #1 (Sedimentation Basins and Screening) Sed Basin #2 is under construction by HOHL. Construction is moving along very well, HOHL has completed the center dividing wall and just about finished the install of the Chain and Flights. The Scum building HVAC system has some minor things with SCADA and the automatic portion of the Scum system and needs to be ran/tested to be fully functional. The scum system level sensor needs to be incorporated into the program/auto system. All railing walkways are in place and secured. There is some concrete work over the Floc. sections of the basins added on this Project and possibly at the old mixer locations which are now covered by plates/manholes. Piping, valves, and hangers are installed in our Carbon Storage area for the combining of our Regen and Virgin Carbon tanks.

Project #3 (Poly, Grit Conveyor, BFP (Belt Filter Press) The BFP portion was held up on materials and approvals of change orders, we were moving along with Nussbaumer and Clarke on this portion of the project but as of recent stalled like before. Hohl went through and finished all punch list items in the upper polymer room in April. NFWB personnel completed all the work that was required from in-house staff in this project. Completed the final walk through, there were a few things that needed to be completed that was overlooked but has since been completed and we have the digital and hardcopies of O&M manuals for the Grit and Polymer portion of the Project.

Project #5 (Electrical) At June '23 Board meeting Ferguson was authorized to replace transformers for two power centers, other portions of Project 5 are being re-evaluated by CPL. We already have the transformers installed and containment fixed/set up in power center #2 and other transformers outside of Maintenance is being reevaluated for install and whether or not concrete pads will be poured, or they will be installed in another way so they can power up the others as well.

Project #10 (Motion AI) – Overall Controls) Motion AI is working on some of the controls that will be added to the BFP and incorporating them. Capabilities will be added to the HMI (Human Machine Interfaces) screens at each of the three belt filter presses. Motion AI would be involved in the HOA switch on each Gorge Pump along with other small upgrades to the GPS and NFWB system. Motion AI has hooked up the level sensor in the scum building for project one incorporated it into SCADA there are some more skated incorporations with project one and the set basins that will need to be done as well but with actual construction still under way some of Motion AI will have to do what they can when they can.

In conclusion, everything at the WWTP has been moving forward without issue. Conditions have never been better, and morale has never been higher. Each department has put in time and effort to make sure all the projects and upgrades to the facility are getting done the way we have envisioned and in a timely manner.

Completed Projects:

1. **Project #2** - Gorge Pump Station
2. **Project #7** – HVAC System
3. **Project #9** – Inside Piping
4. **Project # 11** – Outside Piping

C. Operations Executive – David Conti, updated 09-09-2024

- Nussbaumer and Clark will proceed with plans for additional work to belt filter presses on Project #3.
- The Lucity work order software is now in use. Primary electrical service assets have been added.
- The transformer replacement at WWTP PC #2 is complete. CPL and Ferguson Electric will provide submittals.
- Carbon regeneration tank will be converted to a virgin carbon tank by Hohl beginning June 16. Three inaccessible valves will be addressed by CPL. Box beams have been installed.
- WWTP rapid mix shafts have been evaluated and returned to the WWTP. Two new impeller hubs are ordered. Stabilizers for one impeller are ordered. Gear boxes are being rebuilt. Isolation gates have been removed.
- The rotating element removed from Intermediate Pump #1 has been evaluated. Rebuilding the rotating element, motor and mag drive will require board approval (on Sept. agenda).
- The roof replacement at the WTP is suspended. Work will continue later this year on the sludge building and guard house.
- A cover for the mixers removed from the floc basins at the WWTP has been delivered. Davidson Engineering will provide an alternate plan for walkways.
- Work continues rebuilding Sedimentation Basin #2 at the WWTP.
- The gorge tunnel lighting project has begun. It is currently 25% complete.
- The scrubber room project at WTP has begun. All existing equipment has been removed. The scrubber is in place. The project is scheduled to be completed in September.
- The gable roof project on the Luick and 91st St Lift Station has begun.
- Materials have been ordered to rehab the restrooms in WTP Operations.
- The damaged concrete floor slab in O&M garage was removed and repaired.
- The trench drain in WTP garage has been repaired.

- Enclosure at gorge loading dock complete. Finish coating begun.
- High lift pump #2 at WTP repair is complete and pump is operational.
- 77th St water main replacement pressure test and disinfection has been approved by the NCDOH. Service connections will follow.
- Alum sludge removal from the WTP drying beds is proceeding.
- Cayuga lift station wet well will be cleaned September 12, 2024.
- The WTP man down system will be commissioned on September 11, 2024.
- Installation of level sensors at 4 lift stations is in progress.
- The WTP Chlorine scrubber system is in progress.

II. Outside Pipes & Meter Shop

A. Sewer Collection and Water Distribution – Michael Eagler, updated 09-3-2024.

1. Sewer Collection System Maintenance and Repairs

Sewer Collections System										
2024	**Service** Calls	**Flushing** (Feet)	**UFPO** Responses	**Receivers** Cleaned	**Bypass Pumping** (Hours)	**Catch Basins**	**Manholes**	**Main Repairs**	**Connections**	**Laterals**
January	214	23900	371	145	218.8	3	5	1	3	0
February	76	5691	598	13	0	13	3	1	13	0
March	73	3008	696	4	0	1	3	2	1	0
April	86	17083	1122	45	486.95	2	1	1	2	0
May	72	14629	1127	70	0	3	3	1	3	0
June	60	11134	1045	246	41.1	0	6	0	0	0
July	58	20790	981	211	72.9	2	2	0	2	0
August	85	19370	785	147	2	3	2	0	3	0
September										
October										
November										
December										

Totals	724	115605	6725	881	821.75	27	25	6	27	0

2. Water Distribution System Maintenance and Repairs and UFPO (UDig) Requests

Distribution System and UFPO															
2024	Main Break	Svc. Leaks	Curb Box Reset	Valve Repaired	Valve Replaced	Hydrant Replaced	Hydrant Repaired	Hydrant Flow	Hydrant Flush- Maint.	Hydrant Leaks	Hydrants out of Svc.	Misc. Svc. Calls	Concrete	Landscape	UFPO
January	9	6	9	0	0	13	3	0	213	0	2	214	0	0	371
February	6	3	15	2	1	12	1	0	249	0	2	76	0	0	598
March	4	9	8	0	1	14	1	0	338	0	0	73	7	0	696
April	1	9-5	3	0	3	7	0	20	334	0	0	86	25	0	1122
May	2	6-6	7	2	3	10	0	55	259	0	0	72	21	3	1127
June	2	6-6	14	0	0	7	0	23	384	0	0	60	11	1	1045
July	13	5-5	6	0	0	8	0	90	1100	0	0	58	5	20	981
August	8	3-3	10	0	4	5	2	100	834	0	0	85	25	6	785
September															
October															
November															
December															
Totals	45	53	72	4	12	76	7	288	1877	0	4	639	94	30	6725

Distribution Notes: Please note under service leaks the first number represents total repairs and second number represents complete copper replacement from main to curb stop. 77th street project main, hydrants are installed, home services to start .

B. Meter Shop – Bob Reid, updated 09/09/24

1. Monthly Totals for Meter Shop Tasks

MONTH	WORK ORDERS	STOPPED METERS	Registers Replaced	Properties Tagged	INDUSTRIAL METERS READ	RESIDENTIAL METERS READ
JANUARY	70	0	9	9	0	7174
FEBRUARY	74	0	11	14	0	5234
MARCH	98	4	9	10	556	5386
APRIL	126	19	11	85	0	7171
MAY	145	24	12	72	0	5224
JUNE	104	6	13	14	557	5381
JULY	80	2	12	12	0	7172
AUGUST	92	2	14	14	0	5223
SEPTEMBER						
OCTOBER						`
NOVEMBER						
DECEMBER						
TOTAL	789	57	91	230	1113	35412

2. Meters Read by District, Day, and Employee

	REID	SCHEBELL	PAUL	DERUBEIS	TOTAL
DISTRICT 3					
8/1/24	672		840		1512
8/5/24	1536		1289		2825
8/6/24	529		335		864
8/7/24				22	22
TOTAL	2737		2464	22	5223

Meter Shop read a total of 5,223 residential meters.

III. Analytical Services, Enforcement, & Industrial

A. Environmental Laboratory – Jordan Boyd, updated 09-09-2024.

1. NYS Water Sanitary Code Part B Monitoring/Water Analysis

Monthly collection for the Distribution System was conducted in August. 60 Samples for Free Chlorine, Turbidity, Phosphate, Fluoride, Standard Plate Count & Coliform. Those results were satisfactory and were within reporting limits.

Monthly sampling for TOC, DOC & UV254 on both finished and source water were collected in August. All samples were in compliance.

All in-house monitoring for process water bacteriology and chemistry was within normal limits for August.

No community complaint or water main breaks were sampled in August.

2. DEC Monitoring/Wastewater Analysis

The Water Plant SPDES sample collected from the freeze thaw beds was within normal limits for June. Chloroform and Dichlorobromomethane also were sampled in August according to the WTP SPDES permit.

Weekly samples were collected and sent out to University at Buffalo for New York State analysis of Covid-19 in the wastewater.

Industrial billing samples were analyzed in house for Total Organic Carbon and Total Suspended Solids.

3. Other Laboratory Information and Updates

The Chemistry Laboratory analyzed 8 samples for Total Organic Carbon and 9 Wet Chemistry Samples for City of Lockport and Town of Tonawanda. Also analyzed 3 Wet Chemistry samples from the Village of Lewiston.

The Microbiology lab analyzed 3 samples from the Village of Lewiston. All results were reported to the representative contacts.

Revenue created for 2024 through August was $9,368.

Samples analyzed for 2024: $14,325.50.

B. Industrial Pretreatment/Enforcement – Maria Rocco, updated 09-09-2024

1. Hauled Waste Program

The hauled waste moratorium imposed on August 16, 2017 remains in effect. No landfill leachate or other hauled waste is accepted for treatment at the WWTP.

2. Investigations/Enforcement Actions

All inspections have been conducted and Notices of Violation have been issued as required. Department staff have met with Dave Conti to discuss procedures.

3. SIU Updates

All SIU (Significant Industrial User) whose discharge permits nearing expiration in the next several months have been sent their renewal applications for our review and eventual reissuance of their NFWB wastewater discharge permit. This is an ongoing and continuing process.

The Cross Connection Inspector's work of conducting his inspections as a function of building sales, monitoring the annual tests results of all back flow prevention devices, along with updating our database and filing/archiving the hard copies has been progressing on schedule. Cross Connections personnel have been involved in helping address private-property issues identified in connection with LaSalle Consent Order Sanitary Sewer Evaluation Survey work.

AECOM's work on the local limits re-evaluation commenced, but this project is being re-evaluated by management in light of the 2024 WWTP Order on Consent.

Source control efforts related to BHC seem to be bearing fruit. There was no WWTP SPDES permit violation for that pollutant in July 2024. However, there was one for August 2024. Industrial Pretreatment will continue to work with BHC sources on reducing the loading received at the WWTP.

Pretreatment staff will make themselves available to the new Director of Financial Services as necessary to assist with translating quarterly SIU monitoring data into bills.

The drafting of Linde's Industrial Categorical User (ICU) permit #69 is underway. They will be combining the process waste-stream from their existing SMR process with their proposed new electrolyzer process, which is designed to produce green hydrogen. Their industrial category is Industrial Chemical Manufacturing.

Greenpac's request to reduce their sampling at their ETP from daily to several times a week was approved by Executive Director Costello (7/5/24). They have been approved to do their sampling on Mondays, Wednesdays, Fridays, and Sundays. The mill also had a shutdown on 7/24, which caused TSS to experience a spike. There was also a spike in TSS on 7/19, which Greenpac states was due to the high amount of solids that Cascades sent them that day. The enforcement department continues to receive weekly TSS+SOC updates from Derek Claus.

The waste inspectors are experiencing ongoing issues with Niacet's monitoring station due to a buildup of sand in the tube where they are supposed to be able to collect the samples from. This hinders their ability to collect the billing samples they need for the quarter. They will be receiving a NOV in the form of a written letter from the enforcement department as the first step of enforcement action.

- Ian Horner responded to this letter, claiming that the "suspected operating issues" are due to recent rainfall events, and that localized flooding overtaxed their containment systems, leading to "unavoidable clogging" of their sampler (which he also claims is temporary and abnormal). Ian also states that the general area of the composite sampler was vacuumed the week of 7/8/24, that their catch basins are routinely cleaned (though he did not mention how often), and that a standpipe was installed as an additional measure to prevent sand from being discharged to the sewer.

As the collection of 3rd Quarter Monitoring Reports came to a close, one violation was issued to TAM Ceramics Group of NY, LLC, due to their failure to conduct necessary sampling that is needed to complete their report.

James Cavotta has reached out on behalf of Goodyear- Forest Glen to inquire about discharging "investigative wastewater" through (6) new wells. He was advised that we would need analysis on said wastewater to be done, and an email request with a brief description of what they are doing, before any wastewater from this endeavor would be allowed to be discharged. After receiving no response from this correspondence, a letter communicating the same message was sent to Ramboll on 8/28/24.

IV. Engineering

A. Technical & Regulatory Services – Doug Williamson, updated 09-05-2024

1. LaSalle SSO Abatement Program & Order on Consent R9-20080528-32

The LaSalle SSES Phase 1 Engineering final report was received from Arcadis on February 1st. NFWB crews are performing the Phase 1 work recommended by the report in-house. Costs are being tracked under a Technical Force Account (TFA) for ultimate reimbursement under our $800,000 NYSDEC WQIP grant.

We are looking into a NYSDEC Engineering Planning grant for the Phase 2 and 3 Sanitary Sewer Evaluation Surveys in LaSalle.

It is anticipated that the Consent Order will be amended to incorporate the SSES work and to eliminate the remaining work items within the schedule that have a negligible impact on I & I.

2. WWTP Phase I and II Projects & Order on Consent R9-20170906-129

In August, we continued to work with CPL as the NFWB's project manager and the design consultants on the WWTP Phase I and II projects. We continually work on the grant reimbursements for construction work completed.

Project 1 Sedimentation Basins and Scum Collection System Modification: Construction at sedimentation basin no. 2 continued in August. WWTP sedimentation basin walkway repair work was investigated by JM Davidson on August 14th.

Project 3 Screenings and Grit Transport Equipment Improvements: Close-out of project continued in August. EFC provided completion certification on July 31st.

Project 5 Electrical System Improvements: Power center 5 transformer work to start with Ferguson Electric. Efforts are underway to find lower cost plan for transformer installation versus cost of change order to install on concrete pad outdoors.

Project 10 SCADA Improvements: Work continued as necessary.

Project 12 WWTP Intermediate Pumps: In-house work on pump no. 1 has been completed.

3. WWTP SPDES Permit NY0026336

Our understanding is that discissions with NYSDEC regarding renewal of the WWTP SPDES permit (expired 2018 and under a full technical review since then) are on hold in light of the May 2024 Order on Consent.

The WWTP NetDMR was approved on August 16th for July 2024 with no violations.

2024 Priority Pollutant Scan for WWTP was sent to NYSDEC on August 8th.

4. Town of Niagara Sewer Flow Monitoring

We had a meeting with the Town of Niagara on April 19th to discuss their 2024 billing, flow monitoring, and renegotiating of the Agreement which expires on December 31, 2024. We await the Town's response to several information requests sent in April.

The 2024 Fall Town of Niagara flow monitoring has begun for the period of 8/5/24 (flow meter installs) to 9/3/24 (flow meter removals).

5. Stormwater Management (MS4)

Sanitary Engineer M. Bilquin has been tasked with leading the NFWB effort to comply with the new statewide MS4 permit requirements. The NFWB continues to attend monthly WNY Stormwater Coalition meetings.

6. Engineering Support

In August, the engineering department continued to provide engineering and GIS support to NFWB departments, engineering consultants and developers as needed. Attended monthly WWTP and WTP O & M meetings as needed regarding ongoing and planned projects.

Provided WTP CT calculations for response to EPA SDWA inspection report on August 9th.

7. Capital Improvement Project Planning & Grants

In August, the 5 Year Capital Improvement Plan project progressed, related grants and CPOs written continued to be monitored and tracked. We plan to meet quarterly with EFC and CPL regarding the CWSRF projects, if necessary. We are continuously developing a plan of attack on all the grant funded CIP projects and providing project status updates as needed.

We are waiting for award announcements for the 2024 WIIA watermain replacement and sewer plant biological conversion grant applications that were submitted on June 14th.

a) Water Projects

The Military Road reconstruction and watermain installation project that began in November continued in August.

The 77th Street Water Main Improvement progress meetings were held on August 9th and 23rd.

Watermain design work continued to progress in August with LaBella Associates.

Lead Service Line Inventory RFP was issued on August 19th. Pre-proposal meeting was held on August 27th. Proposals are due August 30th by 1 pm.

b) Sewer Projects

We had an internal planning and coordination meeting on April 12th and continued the recommended Phase 1 SSES improvements in the LaSalle area in August.

AECOM was awarded the design work in March for the Calumet Avenue 48-inch brick sewer rehabilitation. Progress continued in August.

c) WTP Projects

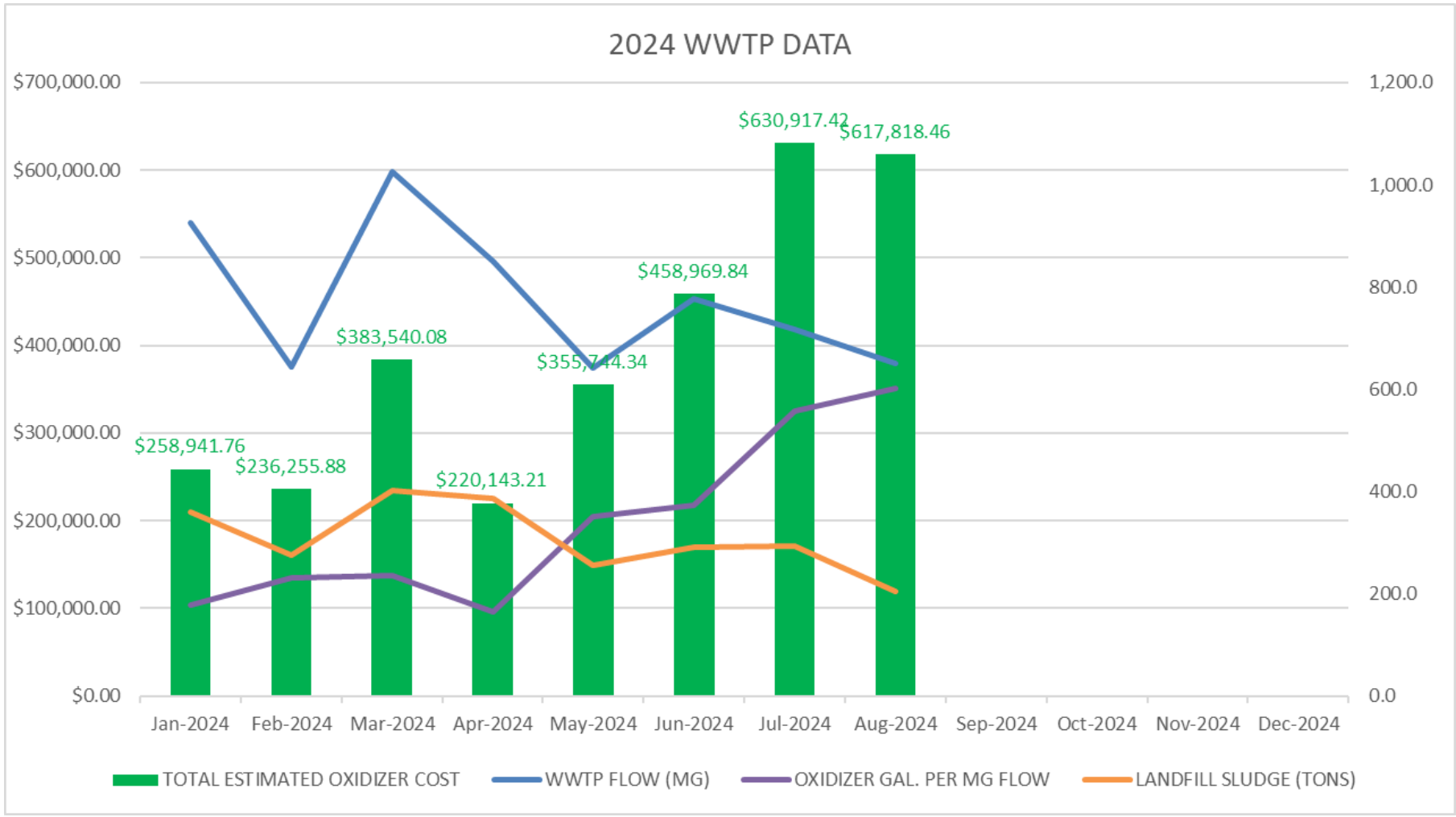
In August, we continued to address the WTP Chlorine Scrubber Replacement project and the WTP roof replacement project.

d) WWTP Projects (additional)

Tank 216 and backwash hypo pump replacement 50% bid drawings were received from AECOM on August 29th.

Met with Hazen Sawyer and AECOM on August 16th regarding the WWTP biological conversion project.

8. WWTP Flow, Oxidizer, and Sludge Data Summary



9. WWTP Oxidizer Data

a) Current Year Data

2024 OXIDIZER BUDGET

BUDGET =	**$6,500,000.00**	for year		
COST =	**$3,162,330.99**	to date		
% USED =	**48.65%**	to date		
BUDGET =	**$17,808.22**	per day avg.	**$541,666.67**	per month avg.
COST =	**$12,960.37**	per day avg.	**$527,055.17**	per month avg.
	25.5	**Flow (MGD)**	**244**	**total days**

WWTP DATA		OXIDIZER USEAGE				SLUDGE REMOVAL			
MONTH	FLOW (MG)	H2O2 (GAL)	NaOCl (GAL)	GAL PER MG FLOW	TOTAL ESTIMATED COST	LANDFILL SLUDGE (TONS)	SOLIDS TONS PER MG	FERRIC CHLORIDE (GAL)	LIME (TONS)
Jan-2024	924.9	0	163,680	177	$258,941.76	360.0	0.39	19,860.0	40.7
Feb-2024	644.8	0	149,340	232	$236,255.88	275.0	0.43	**15,880.0**	**34.1**
Mar-2024	**1,024.5**	0	242,440	237	$383,540.08	**401.0**	0.39	**22,820.0**	46.5
Apr-2024	850.2	0	**139,155**	**164**	**$220,143.21**	385.6	**0.45**	21,090.0	51.3
May-2024	**641.1**	0	224,870	351	$355,744.34	256.6	0.40	16,720.0	29.4
Jun-2024	776.6	0	290,120	374	$458,969.84	292.0	0.38	18,440.0	40.5
Jul-2024	716.9	0	**398,810**	556	**$630,917.42**	294.2	0.41	17,100.0	**69.3**
Aug-2024	649.7	0	390,530	**601**	$617,818.46	**205.0**	**0.32**	19,200.0	57.6
Sep-2024									
Oct-2024									
Nov-2024									
Dec-2024									
TOTALS	6,228.7	0	1,998,945	336	$3,162,330.99	2,469.4	0.40	151,110.0	369.4

Low value for year

High value for year

b) Prior-Year Oxidizer Data for Comparison

2023 OXIDIZER BUDGET

BUDGET =	**$9,000,000.00**	for year		
COST =	**$4,945,863.09**	to date		
% USED =	**54.95%**	to date		
BUDGET =	**$24,657.53**	per day avg.	**$750,000.00**	per month avg.
COST =	**$13,550.31**	per day avg.	**$412,155.26**	per month avg.
	24.1	**Flow (MGD)**	**365**	**total days**

WWTP DATA		OXIDIZER USEAGE				SLUDGE REMOVAL			
MONTH	FLOW (MG)	H2O2 (GAL)	NaOCl (GAL)	GAL PER MG FLOW	TOTAL ESTIMATED COST	LANDFILL SLUDGE (TONS)	SOLIDS THROUGH PUT (%)	FERRIC CHLORIDE (TONS)	LIME (TONS)
Jan-2023	924.9	0	203,550	223	$486,280.95	364.8	136.7	36.9	39.7
Feb-2023	693.8	0	175,760	258	$419,890.64	319.5	181.2	31.7	23.3
Mar-2023	1,024.5	0	242,440	172	$579,189.16	255.7	77.1	42.8	44.8
Apr-2023	850.2	0	139,155	330	$332,441.30	385.6	111.0	39.5	51.3
May-2023	643.0	0	126,660	198	$302,590.74	372.6	120.4	34.1	47.8
Jun-2023	594.4	0	103,180	175	$246,497.02	372.1	154.4	35.4	49.2
Jul-2023	725.6	0	153,350	223	$366,353.15	338.7	100.8	35.9	54.7
Aug-2023	694.0	0	159,490	230	$381,021.61	366.9	144.1	33.3	36.5
Sep-2023	582.8	0	250,120	430	$597,536.68	203.2	122.4	27.1	37.2
Oct-2023	626.5	0	188,250	133	$449,729.25	226.2	123.0	29.7	37.4
Nov-2023	599.5	0	172,040	279	$411,003.56	292.0	176.5	29.3	38.1
Dec-2023	839.6	0	156,270	186	$373,329.03	309.0	133.0	40.5	38.7
TOTALS	8,798.9	0	2,070,265	237	$4,945,863.09	3,806.2	133.6	416.3	498.6

Low value for year
High value for year

V. Safety & Security

A. Safety – John Accardo, updated 09-12-2024

Safety committee meetings were conducted in July & August.

Installation of equipment needed for the WTP Lone Man Down system was mounted on movable boards in August 2024. Equipment is not being permanently mounted until we have confirmed all areas are covered.

EAP and flag person training delivered in July & August.

B. Security Report – John Accardo, updated 09-12-2024

No security incidents were reported in July or August 2024.

VI. Information Systems & Technology

A. Information Technology (IT) – Jonathan Joyce, updated 09-11-2024

1. Primary System Statuses

- VMware Environment – No issues to report.
- New World Cloud – No issues to report.
- Exchange Office 365 – No issues to report.
- Network WTP/WWTP/Gorge – No issues to report.
- Network Security – No incidents to report.

2. Updates & Projects

Darktrace & CISA scans found no high-level security vulnerability.

- VMware is changing licensing model. IT is looking at cloud "Azure, AWS" options as potentially more cost effective.
- Working on redesign the NFWB network to include VLANs. VLANs can enhance security, reduce congestion, and improve overall network performance by segmenting traffic into virtual domains.
- At the Gorge Pump Station, deploying fiber optic cable to connected security cameras and access control
- We implemented IT help desk system, where we can centralize our support processes, allowing for better management and prioritization of technical issues.
- Internet connected at water tower adding additional outside camera.
- Mobile Device Management software is still being rolled out. Successfully deployed MDM on Android devices and continuing to resolve issues with implementation on Apple devices.

NIAGARA FALLS WATER BOARD

Water You Can Trust.

ESTIMATED CONSTRUCTION SCHEDULE

NFWB CAPITAL IMPROVEMENT PROJECTS

Updated: 8/10/2024

TASK DESCRIPTION	PLAN START	PLAN END
Project #1: Sed. Basin Upgrades (CPL) - CA/CI Approved (10-26-20)		
Design and Bidding	5/22/2019	10/1/2020
Mobilization	11/1/2020	2/1/2021
Construction (Phase 1)	3/1/2021	6/30/2022
Construction (Phase 2)	7/1/2022	2/3/2023
Construction (Phase 3)	3/1/2023	2/3/2024
Construction (Phase 4)	3/1/2024	12/30/2024
Project #3 Polymer and Grit (Arcadis) - CA/CI Approved (10-26-20)		
Design and Bidding	5/30/2019	10/1/2020
Updated Design	12/1/2023	3/31/2024
Construction	11/1/2020	12/31/2024
Project #5 Electrical System Improvements (EI Team)		
Design and Bidding	4/25/2019	2/1/2022
Construction	3/1/2022	12/31/2024
Project #10 SCADA Improvements (Kaman) - CA Services Not Required		
Design and Bidding	6/1/2019	12/1/2019
Construction	1/1/2020	11/30/2024
Project #12 Int. Pump Improvements (GHD)		
Design	3/23/2022	8/23/2022 (RFP Pending)

Niagara Falls Water Board (NFWB) Overall Project Budget Summary (Phase 1 Overall Budget = $27M)

Last Updated: 6 9/10/2024

Key	
Not approved	
Preliminary Estimate	

Project	Scope	Budget	Scope/Vendor	Estimated/ Final	% Billed	Recent Work Update
1	Sedimentation Basin Upgrades	$10,390,000	Design and Bidding **(AECOM - Approved)**	$409,000	100%	Hohl on site and working basin #2 Work in Basin-1 to follow..
			CA & CI **(CPL - Approved)**	$470,000	94%	
			GEN Construction **(Hohl - Per Bid - Approved**)	$9,410,228	75%	
			ELEC Construction **(CIR - Per Bid - Approved)**	$922,769	81%	
			Project Total	**$11,211,997**	**77%**	
			Remaining Budget	**($821,997)**		
3	Screens and Grit Transportation Equipment Improvements	$1,920,000	Design and Bidding **(Arcadis - Approved)**	$166,785	100%	Nussbaumer & Clarke to investigate and finish the project. Meeting to be held with N&C, contractor and NFWB.
			CA & CI **(Arcadis - Approved)**	$217,750	95%	
			GEN Construction **(Hohl - Per Bid - Approved)**	$1,549,833	82%	
			ELEC Construction **(CIR - Per Bid - Approved)**	$205,122	93%	
			Project Total	**$2,139,490**	**86%**	
			Remaining Budget	**($219,490)**		
5	Electrical System Improvements	$2,610,000	Design/E.I. Team - **Approved**	$102,120	100%	Transformer 4A &4B installed. Transformer 5 installation estimated July/August.
			Phase 2 Design - **Approved**	$198,941	100%	
			Task 1 Construction - Ferguson - **Approved**	$253,307	71%	
			Task 2 Construction - Ferguson - **Approved**	$1,491,000	0%	
			Project Total	**$2,045,368**	**23%**	
			Remaining Budget	**$564,632**		
10	SCADA Improvements	$498,650	Phase 1 Design/ Construction/Kaman - **Approved**	$352,450	78%	Kaman continues SCADA integration work with Capital Project contractors.
			Phase 2 Design/ Construction - **Approved (For Project #6)**	$146,200		
			Running Total	**$498,650**	**78%**	
			Remaining Budget	**$0**		
Phase 1 Budget Total =		**$27,000,000**	**Anticipated Total Cost (Percentage of Total Budget)**	**$26,104,799**	**Remaining Ph. Budget**	**$895,201**

Niagara Falls Water Board (NFWB) Overall Capital Project Budget Summary (Phase 2 Overall Budget = $13M)

Key	
Not approved	
Preliminary Estimate	

Project	Scope of Work	Budget	Scope/Vendor	Estimated Task	% Billed	Recent Work Update
2B	Outfall	$1,700,000	Design, Bidding, and CA/CI **(GHD - Approved)**	$37,400	100%	(See Project #2 Update)
			GEN Construction (**STC - Per Bid - Approved)**	$562,000	95%	
			Running Total	**$599,400**	**95%**	
			Remaining Budget	**$1,100,600**		
12	Intermediate Pumps Upgrades	$3,075,000	Intermediate Pump Assessment **(GHD - Approved)**	$21,716	Final	RFP is prepared to be send out.
			Running Total	**$21,716**	**Final**	
			Remaining Budget	**$3,053,284**		
Ph. 2 Budget = $13,000,000			**Phase 2 Running Total**	**$4,499,123**		
*Updated to reflect full available Phase 2 Budget, grant not yet approved			**Phase 2 Remaining Budget**	**$8,500,877**		

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-001

PROCUREMENT OF GRIT CYCLONE SCREW AND PARTS

WHEREAS, the Niagara Falls Water Board ("Water Board") wastewater treatment plant ("WWTP") cyclone-type grit washer's screw components must be replaced from time to time due to wear and certain parts are stocked in order to be able to perform repairs when needed and without delay; and

WHEREAS, WWTP maintenance staff have utilized the existing stock of parts for the grit washer's screw components, and have obtained a quotation from Koester Associates, Inc., to replenish this stock of spare parts; and

WHEREAS, these parts are for a Smith & Loveless machine, which has provided a letter certifying that Koester Associates, Inc., is the sole authorized source for these parts;

NOW THEREFORE BE IT

RESOLVED, that on behalf of the Niagara Falls Water Board, its Executive Director hereby is authorized to procure a grit screw with wear shoes and coupling bolts, tail shaft assembly, lower bearing, and a set of wear shoes from Koester Associates, Inc., for $37,621.18 plus the actual cost of shipping, estimated at $2,500, for a total of $40,121.18.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Capital Line: WWTP-17 WWTP Infrastructure Projects-Miscellaneous

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By: Vote Witnessed By:

_____ _____

Nicholas J. Forster, Chairman Sean W. Costello, Secretary to Board

KOESTER

QUOTATION		
DATE	NUMBER	PAGE
8/8/2024	0003048	1 of 1

BILL TO
NFW200
NIAGARA FALLS WATER BOARD
5815 BUFFALO AVE
NIAGARA FALLS, NY 14304
US

SHIP TO
NIAGARA FALLS WATER BOARD
5815 BUFFALO AVE
NIAGARA FALLS, NY 14304
US

Accepted By:_____
Company:_____
Date:_____
PO#:_____
Ship To:_____

ATTENTION:

ERIC SMITH

WE ARE PLEASED TO PROPOSE THE FOLLOWING FOR YOUR CONSIDERATION:

CUSTOMER REF/PO#	JOB TITLE	SLP	SHIPPING TYPE
S/N 1696-07	GRIT CLASSIFIER PARTS, S&L/SCHLOSS	PAS/RAB	BEST WAY PP&ADD

QTY	PART	DESCRIPTION	UNIT PRICE	EXTENDED
1.00	CZZ1696-07-SCR	S&L, SCREW 12" DIAMETER X 118" LONG SST WITH AR235 WEAR SHOES AND COUPLING BOLTS	$28,718.26	$28,718.26
1.00	CZZ1696-07-TS	S&L, TAIL SHAFT ASSEMBLY	$1,541.57	$1,541.57
2.00	CZZ1696-07-BRG	S&L, LOWER BEARING	$383.03	$766.06
1.00	CZZ1696-07-WS	S&L, SET OF WEAR SHOES AR235 WEAR SHOES (38 TOTAL) WITH HARDWARE	$6,595.29	$6,595.29
1.00	KA1247	SHIPPING & HANDLING	$2,500.00	$2,500.00

THIS IS AN ESTIMATED AMOUNT. CUSTOMER WILL BE INVOICED FOR ACTUAL SHIPPING CHARGES INCURRED FROM MFG.

NOTE: INSTALLATION AND START-UP NOT INCLUDED, HOWEVER AVAILABLE UNDER SEPARATE COVER.
THANK YOU FOR THE OPPORTUNITY TO QUOTE.

PLEASE ACKNOWLEDGE RECEIPT OF THIS QUOTE.

PARTS & SERVICE DEPARTMENT
KOESTER ASSOCIATES, INC.
PHONE: (315) 697- 3800
PARTS@KOESTERASSOCIATES.COM

QUOTE VALID FOR 30 DAYS. CREDIT CARD PAYMENTS ARE SUBJECT TO AN ADDITIONAL 3% PROCESSING FEE

TOTAL: $40,121.18

RECONDITIONING MOTOR FOR WWTP INTERMEDIATE PUMP NO. 2

WHEREAS, the Niagara Falls Water Board ("Water Board") wastewater treatment plant ("WWTP") has four 250 horsepower intermediate pumps that are original to the plant and require rehabilitation in order to continue to provide reliable service; and

WHEREAS, the intermediate pump motors were manufactured by Electric Machinery Mfg. Co., now WEG, and as part of a plan to rehabilitate the intermediate pumps Water Board staff have obtained a quotation from Volland Electric Equipment Corp. as WEG's authorized local representative to recondition a motor removed from Intermediate Pump No. 1, which when reconditioned will replace the motor currently in Intermediate Pump No. 2; and

WHEREAS, Volland has provided a proposal dated September 3, 2024 to recondition the intermediate pump motor for an estimated $23,500;

NOW THEREFORE BE IT

RESOLVED, that on behalf of the Niagara Falls Water Board, its Executive Director hereby is authorized to accept the September 3, 2024 proposal of Volland Electric Equipment Corp. to recondition an intermediate pump motor for a total estimated cost of $23,500, and to pay to Volland Electric Equipment Corp. the actual cost of that service.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Capital Line: WWTP-11.5 Intermediate Pump Upgrades

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By: Vote Witnessed By:

_____ _____

Nicholas J. Forster, Chairman Sean W. Costello, Secretary to Board

75 INNSBRUCK DRIVE
BUFFALO, NY 14227
(716) 656-9900 PHONE
(716) 656-8899 FAX
www.volland.com

VOLLAND Electric Equipment Corporation

September 3, 2024 Volland Proposal # 24-2110

Niagara Falls Water Board

Attention: Eric Smith

Description: 250HP EM Synchronous Vertical Motor with Eddy Current Clutch

Estimated Price for Reconditioning Service..... $ 23,500.00
Estimated Delivery.....4-6 weeks

Proposed Scope of Services:

Pick up the motor and clutch and transport to Volland Electric. Disassemble, test, and inspect the motor and clutch. Test, inspect and clean the Sync-Rite electronics and diode wheel. Steam clean and oven dry all components. Bead blast components as required. Resin-treat the stator windings and clutch coil. Machine and polish the slip rings of the motor and clutch. Dynamically balance the motor and clutch rotors to a precision standard. Furnish and install replacement motor and clutch bearings, using Mobil Polyrex EM grease, unless instructed otherwise. Furnish, install and seat replacement carbon brushes. Reassemble the motor and clutch and perform final electrical testing. Test run the motor solo and perform vibration analysis. Mount the motor to the clutch and test run as an assembly and perform vibration analysis. Paint the motor/clutch assembly and perform quality control inspection. Prepare the motor for shipment & deliver.

Repair warranty is 1-Year on Volland Electric workmanship and materials.
Any additional repair work or replacement components beyond this scope would be quoted following inspection and testing.

Thank you for the opportunity to submit this proposal. We look forward to working with you.

Regards,

Shaun Boland

Shaun Boland

REFURBISHMENT OF WWTP INTERMEDIATE PUMP NO. 2

WHEREAS, the Niagara Falls Water Board ("Water Board") wastewater treatment plant ("WWTP") has four 250 horsepower intermediate pumps that are original to the plant and require rehabilitation in order to continue to provide reliable service; and

WHEREAS, the intermediate pumps (not including the motors) were manufactured in 1974 by Morris Pumps, Inc., now Grundfos, and as part of a plan to rehabilitate the intermediate pumps Water Board staff have obtained a quotation from Siewert Equipment as Grundfos authorized local service representative to refurbish WWTP Intermediate Pump No. 2; and

WHEREAS, Siewert Equipment's proposal includes repair and reassembly in accordance with original equipment manufacturer tolerances and onsite startup service with a report on vibration and hydraulic performance; and

WHEREAS, Siewert Equipment has provided a proposal dated July 26, 2024 to refurbish intermediate pump No. 2 for an estimated total project price of $133,773;

NOW THEREFORE BE IT

RESOLVED, that on behalf of the Niagara Falls Water Board, its Executive Director hereby is authorized to accept the July 26, 2024 proposal of Siewert Equipment to refurbish WWTP Intermediate Pump No. 2 for a total estimated cost of $133,773, and to pay to Siewert Equipment the actual cost of that service.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Capital Line: WWTP-11.5 Intermediate Pump Upgrades

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By: Vote Witnessed By:

_____ _____

Nicholas J. Forster, Chairman Sean W. Costello, Secretary to Board

SIEWERT EQUIPMENT
A Division Of
CUMMINS·WAGNER
100% Employee Owned
Headquarters: 175 Akron Street, Rochester, NY 14609

Service Department:
Buffalo | Rochester | Albany
P - 585-224-7967
F - 585-224-7968
www.siewertequipment.com

Serving New York Municipalities and Industry since 1949.
Laser Alignment Specialists

EMAIL / FAX TRANSMITTAL FORM

Date:	Friday, July 26, 2024
To:	NFWB
Attention:	Jay Meyers
Fax/Email:	jmeyers@CPLteam.com
Phone:	(716) 852-2100
From:	Mitch Socola
Title:	Service Manager

COMMENTS

Subject/Job:	**Service Proposal**
Make/Model:	Morris 2200 150 MFD 36" x 36"
Serial Number:	M14287-4290
PO / Ref. No:	

Please find attached our service proposal and let us know if you have any questions. Should you choose to proceed, kindly sign the proposal and return with purchase order or credit card number as approval for us to schedule and proceed.

Thank you for choosing Siewert Equipment.

MORRIS

GRUNDFOS
AUTHORISED SERVICE PARTNER

Copy: Craig Moore

Total Number of Pages Including Cover: 4

SIEWERT EQUIPMENT
A Division Of
CUMMINS-WAGNER
100% Employee Owned

Service Proposal

Service Department
Buffalo | Rochester | Albany

Voice: P - 585-224-7967
Fax: F - 585-224-7968

To: **NFWB**
5815 Buffalo Ave
Niagara Falls, NY 14304
Attn: **Jay Meyers**
Job: Service Proposal

Date: **July 26, 2024**
Make/Model: Morris 2200 150 MFD 36" x 36"
Serial #: M14287-4290
Proposal #: 72490
PO #:

Work/Solution Proposed

Customer requests repair assessment, with onsite volute and wear ring inspection. Estimate is based on our experience with similar pumps and subject to actual findings after receipt of pump following disassembly and inspection. Proposed scope of services include:

PHASE 1: In-shop Repair Assessment
- Customer will arrange for removal of rotating element and transportation of pump to Siewert service center. Motor to be repaired by 3rd party.
- Disassembly, clean, and inspection of rotating assembly to determine parts & services needed to restore OEM hydraulic performance & reliability.
- Upon completion of work, a repair assessment report with detailed inspection findings & repair recommendations will be provided.

PHASE 2: Repair (Machine Work estimated)
-Upon approval to proceed, provide labor and material to repair the unit:
- Internal surfaces will be cleaned to remove all surface scale.
- External surfaces to be cleaned, and painted (where applicable).
- Genuine OEM replacement parts will be provided as noted on attached parts list.
- Pump to be repaired and reassembled in accordance with OEM tolerances.
- Precision Balance of Impeller and shaft assembly before reassembly.
- Grundfos Factory Impeller Wear Ring is **$28,987**

Machine Work:
- Upper bearing housing bearing bore damaged by race spinning
  - Twin Arc Wire Spray lower bearing bore to build up and machine bore to OEM Tolerance.
- Upper bearing housing bearing bore damaged by bearings spinning wearing into bearing bore and housing shoulder.
  - Fabricate bearing bore sleeve, install and machine bore to OEM Tolerance, Machine housing shoulder to clean and machine bearing retainer to same clean up amount to clamp bearing race.
- Stuffing box plate is severely damaged with broken drain pipe and housing, broken packing gland studs, clogged flushing port, worn and heavily corroded packing bore.
  - Remove broken drain pipe, tap housing , install new drain pipe
  - Remove broken gland studs, tap housing, install new gland studs
  - Ream out flushing port and tap housing, install new flushing port pipe
  - Machine packing bore to clean, fabricate and install stainless steel sleeve in packing bore (if needed).
- Weld repair of damaged impeller & Install new wear ring

PHASE 3: "On-site Startup Service":
- Siewert Equipment to provide two service technicians onsite to provide installation supervision of repaired rotating assembly.
- Witness startup and take baseline vibration readings and pressure / flow readings utilizing customers gauges and meters for hydraulic performance.
- Vibration Readings will be taken by Vibration Cat III certified vibration analyst.
- Provide Startup Report with vibration readings and hydraulic performance data.

Terms

2.) Siewert Equipment is fully authorized for Service & Repair by Grundfos Pump Company.
3.) If Siewert Equipment Company determines that additional parts/labor are required that were not included in this initial quote, you will be notified for review and approval before we proceed.
4.) Public Works proposals are in accordance with Article 8, Section 220 of the New York State Labor Law.
5.) Payment terms are Net 30 days. A 3% processing surcharge applies to all credit card orders. Price quoted does not apply to credit card payments. Please request a revised quote if you need the option to pay by credit card. Merchant name on credit card statement will be Cummins-Wagner. This proposal is valid for the next 30 Days and subject to attached terms and conditions.

Exclusions

1.) Any work not specifically described above. If other work is required, a new estimate sheet will be sent to the customer for approval.

Project Phase Pricing

PHASE 1: In-shop Repair Assessment: Lead Time:	**$13,799**	Complete
Phase 2: Machine Repair (Estimate) / Parts ~ Lead Time:	**$99,059**	16 - 20 Weeks
Phase 2: Repair Labor	**$15,333**	2 - 3 Weeks
PHASE 3: On-Site Startup Service: Lead Time:	**$5,582**	2 - 3 Weeks
Total Project Price (Estimate) : ~ Inspection & Assessment Lead Time:	**$133,773**	20 - 26 Weeks

Repairs include 90-day warranty for defective parts & workmanship. New unit includes (1) year manufacturer's warranty.

*** * PLEASE INDICATE ACTION(S) REQUIRED BY CHECKING ASSOCIATED BOXES AND SIGNING BELOW * ***

Proceed with Repair ☐

This proposal is hereby accepted and SECO is authorized to proceed with the work; subject to credit approval by Siewert Equipment Co., Inc.

Tax Exempt: No ☐ Yes ☐ * Fax copy of tax exempt cert. if applicable

Purchase Order Number: _____

Credit Card: (√ one) MasterCard ☐ Visa ☐ American Express ☐

Card # _____ Expiration _____ Security Code _____

Credit Card: A 4% processing surcharge applies to all credit card orders. Merchant name on statement is Cummins-Wagner.

NFWB

Signature: _____

Name: _____

Title: _____

Date: _____

Siewert Equipment Co. Inc.

Signature: _____

Name: **Mitch Socola**

Title: Service Manager

Date: 7/26/2024

SIEWERT EQUIPMENT
A Division Of
CUMMINS·WAGNER
100% Employee Owned

Parts List

Service Department
Buffalo | Rochester | Albany

Voice: P - 585-224-7967
Fax: F - 585-224-7968

To: NFWB
5815 Buffalo Ave
Niagara Falls, NY 14304
Attn: Jay Meyers
Job:

Date: July 26, 2024
Make/Model: Morris 2200 150 MFD 36" x 36"
Serial #: M14287-4290
Proposal #: 42455
PO #: 0

Material List

Quantity	Description
1	Stuffing Box Bushing
2	Bearing
2	Bearing
1	Packing Rings
1	Lantern Ring
1	Shaft Sleeve
1	Shaft Nut
2	Lip Seal
2	Lip Seal
1	BRG Collar
3	BRG Locknut
2	BRG LockWasher
1	Deflector
1	Deflector
2	Gasket
2	O-Ring
1	O-Ring
1	Shim Set
1	Shim Set
1	420 SS Impeller Wear Ring

SIEWERT EQUIPMENT
A Division Of CUMMINS-WAGNER
100% Employee Owned

ROCHESTER | BUFFALO | ALBANY
Headquarters: 175 Akron Street, Rochester, NY 14609

Pump Inspection & Assessment Report

Customer:	**Niagara Falls Water Board**	Job #:	**Roch45105**
Contact:	**Jay Meyers**	Manufacturer:	**Morris**
Date:	**7/26/2024**	Model:	**2200 36" x 36"**
PO:	**CPO24-00020**	Serial No.:	**M14287-4290**

Background:

Pump was built in 1974, customer removed pump from service due to excessive vibration and reduced efficiency.

Pump as Received:

As Received

Nameplate

Impeller Wear:

Stainless steel impeller wear ring worn away / missing. A cause of reduced efficiency.

Seal plate (packing) condition:

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Picture
1 & 2 Broken Drain Pipe
3 Packing Flush Port
4 Damaged Gland Studs
5 Packing Box Bore Corrosion / Wear

Upper Bearings / **Bearing Housing:**

Failed Upper Bearing Spun Race

Bearing Housing Bore 0.153" oversize

Shoulder Worn (fretting) from bearing movement.

Lower Bearing Housing:

Bearing Housing Bore 0.007" oversize

Slight Groove from bearing movement.

Deep Grooving from packing

Shaft Sleeve:

Prepared by:
Mitch Socola
Service Manager

End of report.

Copy: Craig Moore: Sales Engineer

SIEWERT EQUIPMENT
A Division Of CUMMINS-WAGNER

CUMMINS-WAGNER

"A 100% Employee Owned Company"

EPS

CUMMINS-WAGNER
Cummins-Wagner-Florida, LLC

EESCO Pump & Valve
A Division Of CUMMINS-WAGNER

TERMS AND CONDITIONS

1. PRODUCTS: Products (parts, components, items, materials, assemblies) herein are of the Manufacturer's standard or available construction and specifications. It is Buyer's final responsibility to determine if these products satisfactorily meet Buyer's or Buyer's customer's plans, specifications and requirements. Weights and dimensions when given are approximate unless certified in writing by the Manufacturer.

2. SELECTION AND END USE: Seller is not in any way liable for selection, application, or suitability of products herein for any particular use or for any installation or operational costs incurred with these products, all of the aforesaid being the final responsibility of Buyer.

3. QUOTATIONS: Seller as a service to Buyer may quote orally or in writing from time to time current prices then in effect for products or services offered for sale by Seller; however, such prices are subject to change without notice. Quotations may be withdrawn at any time prior to actual receipt by Seller of a written purchase order and release from Buyer to manufacture and/or ship the products or perform the services described herein. Quotations shall become null and void upon the elapse of thirty (30) days from the date of quotation unless earlier withdrawn. Seller does not assume any responsibility for any variation in quantity or omission of any item in any quotation that may be required by any plan or specification or otherwise. Seller is not responsible for any typographical errors or reproduction deficiencies. Quotations for the Quantities, Products and Services described herein are subject to these Terms and Conditions only; Seller will only accept orders on these exact Terms, Conditions and Provisions and no inconsistent terms, conditions, provisions or modifications will be agreed to unless specifically approved in writing by an officer of Seller.

4. PURCHASE ORDERS AND ACCEPTANCE: Purchase orders of Buyer resulting from oral or written quotations of Seller shall be subject to the Quantities, Products and Services herein, these Terms and Conditions, and the written approval signed by an authorized representative of Seller in the Seller's acknowledgement. Any term(s), condition(s) or provision(s) of Buyer's purchase order which are inconsistent with these stated herein, shall not be binding on Seller and shall not be considered applicable to the sale or shipment of the products or performance of the services described herein. Unless Buyer shall notify Seller in writing to the contrary as soon as practical after receipt of Seller's acknowledgement, acceptance of Seller's Terms and Conditions hereof by Buyer shall be presumed and, in the absence of such notification, Buyer's oral or written release to manufacture and/or ship the products or perform the services described herein, shall be conclusively deemed as Buyer's acceptance of these Quantities, Products, Services, Terms and Conditions herein. If Buyer notifies Seller in writing of his objections to any of the Terms, Conditions and Provisions described herein, such objections are not accepted by Seller unless specifically accepted in writing signed by an officer of Seller. Seller's responsibility is limited solely to the furnishing of the products or services described herein and assumes no responsibility for any other or further requirements or conditions expressed in any plan, specification, purchase order or other document.

5. SUBMITTAL: If Specifically requested in writing by Buyer at the time of purchase order, Seller will prepare submittal data (product bulletins, descriptive data, curves, diagrams, each independently as required) for written approval, corrections, or rejection by Buyer, Buyer's customer or Buyer's customer's authorized representative. Any changes in the submitted products required by the approving authority will be at the Buyer's expense and supported by a written change order in accordance with Sellers Terms and Conditions. In case of dispute between Buyer and Seller of required changes or rejection of the products herein, either Buyer or Seller may cancel this contract in writing to the other without penalty, unless Buyer has previously released to manufacture and/or ship the products in question, which in such case Buyer will be fully responsible for the products and all payments as if a submittal had not been requested. In no case will Seller be obligated to offer for sale or furnish any modified or alternate products to those described herein.

6. TIME OF SHIPMENT: Stated shipping dates are approximate. Seller shall not be liable or subject to any special or consequential damages for failure to deliver or delays in delivery occasioned by causes beyond Seller's control, including, but not limited to, strikes, lockouts, fires, inability to obtain materials or shipping space, breakdowns, delays of carriers or suppliers and governmental acts and regulations.

7. DELIVERY AND FREIGHT: Delivery of these products shall be F.O.B. the place of shipment to Buyer. Thereafter Buyer assumes full responsibility for any damage or loss irrespective of Seller's prepayment of freight charges. Buyer shall furnish at Buyer's expense, labor and equipment necessary to expeditiously unload products delivered by Seller. Any expenses incurred by Seller due to the delay in unloading shall be reimbursed to Seller by Buyer.

8. STORAGE: A product held in storage for the convenience of Buyer will be invoiced to Buyer as if the products were shipped and Buyer agrees to pay for same plus additional reasonable storage charges in accordance with the following payment terms.

9. PAYMENT: Buyer agrees to pay Seller within thirty (30) days of invoice date. If Seller has not received payment within these thirty (30) day terms, Seller may add and receive payment from Buyer interest charges at the rate of 1½% per month on unpaid balance plus such other reasonable collection costs and expenses incurred including attorney's fees, collections fees, court costs and otherwise. Cash or anticipation discounts are not offered unless specifically stated on Seller's invoice, no discounts are allowed on freight, shipping, taxes or interest charges. Cash discounts offered for early payment are earned only when payment is received in the office of Seller on or before the specified discount terms or date. Seller reserves the right to make partial invoices(s) for storage, shipments or services performed and receive payment in accordance with the above terms. Buyer agrees not to make any deductions for taxes, freight, retainages, alleged damages or otherwise from any payments due herein. Payment by credit card may incur a 3% fee.

10. TAXES: Buyer shall pay in addition to the purchase price and other charges herein, all excise, sales, privilege, use or other taxes, Federal, State, Local or Foreign, payable by Seller because of the execution of this contract.

11. CREDIT AND DEFAULT: If financial responsibility of Buyer becomes impaired or unsatisfactorily in the sole judgment of Seller under this or any other contract between the parties, advance cash payments or satisfactory security shall be given by Buyer upon demand by Seller and any shipments due under this or any contract may be withheld until all payments due are received in full and Buyer's credit has been re-established satisfactorily in the sole judgment of Seller. In addition to all other remedies, in the event of default by Buyer under the terms of this agreement, Seller shall have the right to take exclusive possession of the products sold herein wherever found and to remove same without legal process, any payments having been made on account thereof to be retained by Seller as liquidated damages; or Seller may, in addition to all other remedies available to it, if it deems said products are not readily removable or resalable, sue for and collect any unpaid payments including interest charges, plus such other costs and expenses as Seller has incurred or may incur which shall become immediately due and payable upon Buyer's default of any of the terms of this contract, said remedies to be cumulative.

12. WARRANTIES: There is NO WARRANTY, representation or condition OF ANY KIND, EXPRESS OR IMPLIED (INCLUDING NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE) by Seller regarding the products herein; Buyer is solely limited to the Manufacturer's express written warranty, copies of which will be furnished to Buyer upon request. No warranty conditions will be considered until payment of this contract has been made in full.

13. SELLER'S LIABILITY: Seller's liability shall be limited to the stated selling price of any defective product and in no event shall Seller be liable for prospective profits or special, direct, indirect or consequential damages of any kind caused by a product, component or part failure. Buyer assumes all risk and liability for loss, damage or injury to persons or property of Buyer or others arising out of the use or possession of any product, component or part herein.

14. RETURNS: Products purchased herein may not be returned without the express written permission of Seller, as evidenced by Seller's or Manufacturer's properly authorized return material form, of which a copy must accompany the returned material. Authorized returns shall be shipped at the expense and liability of Buyer to the destination specified by Seller. Such returns are accepted by Seller or Manufacturer for inspection only; any allowance or credit originates with the Manufacturer subject to charges for freight, handling, inspection, repair, restocking and otherwise. Damaged, installed, used or special order products are not returnable. Seller or Manufacturer will not accept debit charges from Buyer for returned products.

15. SERVICE: Seller does not include any field or shop labor or service equipment and/or materials for the products herein unless specifically stated as an item in the body of this contract. Any service requested in addition to that not included in the body of this contract will be considered a separate contract and require a separate purchase order from Buyer. No service requests will be accepted or performed when Buyer's account is past due according to the payment terms herein.

16. CHANGE, MODIFICATION, CANCELLATION: This contract cannot be changed, modified or cancelled except by written agreement executed by Buyer and an officer of Seller.

17. JURISDICTION: This agreement shall be governed and construed in accordance with the laws of the State of Maryland.

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-004

PROCUREMENT OF WATER METERS

WHEREAS, the Niagara Falls Water Board ("Water Board") has standardized on Neptune brand meters for residential and large meter installations as it has invested in the equipment required for remote reading, testing, calibration, and repair of Neptune meters; and

WHEREAS, the meter shop has depleted its inventory of new meters, which are required to replace defective meters that cannot be repaired, to replace meters that no longer meet accuracy standards, or for new installations; and

WHEREAS, TiSales is the exclusive distributor of Neptune brand meters and components in this region, and has provided a quotation dated September 9, 2024 for meters and components needed by the meter shop;

NOW THEREFORE BE IT

RESOLVED, that on behalf of the Niagara Falls Water Board, its Executive Director hereby is authorized to procure from TiSales an assortment of water meters and components meeting the needs identified by the meter shop, for a total cost not to exceed $220,716.23.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Capital Plan Line: C-2, Meter Replacement and Upgrades

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By: Vote Witnessed By:

_____ _____

Nicholas J. Forster, Chairman Sean W. Costello, Secretary to Board

Ti SALES
36 Hudson Road
Sudbury, MA 01776-2039

800-225-4616
978-443-2002
Fax: 978-443-7600
www.tisales.com

Quote	QTE0072798
Quoted To	Bob Reid
Date	09/09/2024

Sold To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304-3832

Ship To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304

Customer Number	Telephone	Fax	Job Location	Job Name	Territory Manager
NIAG7	(716) 286-4371	(716) 283-9748	Niagara Falls	Restock	Marcus Anten

Expires	Estimated Delivery	Freight	Terms	Master Number
11/08/2024	various	Allowed	NET 30	381896

Item Number	Description	Quantity	Price	Extension
	1. Meters			
N2EIFPIT	5/8" X 3/4" Neptune T-10 Meter Integrated E-CODER R900i Cubic Feet	200	$302.56	$60,512.00
N3EIFPIT	3/4" Neptune T-10 Meter Integrated E-CODER R900i Cubic Feet	10	$461.54	$4,615.40
N4EIFPIT	1" Neptune T-10 Meter Integrated E-CODER R900i Cubic Feet	8	$573.85	$4,590.80
N6EIFPIT	1-1/2" Neptune T-10 Meter Integrated E-CODER R900i Cubic Feet Flanged End	10	$998.46	$9,984.60
N7EIFPIT	2" Neptune T-10 Meter Integrated E-CODER R900i Cubic Feet Flanged End	6	$1,232.31	$7,393.86
NCOMP3EIF	3" Neptune Tru/Flo Compound Meter Integrated E-CODER R900i Cubic Feet	3	$4,230.00	$12,690.00
NMT3EIFC	3" Neptune MACH 10 Meter E-CODER R900i Cubic Feet 17" length	3	$3,546.15	$10,638.45
NMT4EIFT	4" Neptune MACH 10 Meter E-CODER R900i Cubic Feet 14" length	3	$4,426.92	$13,280.76
	Subtotal for items in this section			**$123,705.87**

Item Number	Description	Quantity	Price	Extension
	10. Gaskets			
MDROPIN7NSF	2" Drop In Meter Gasket NSF61	40	$4.20	$168.00
MDROPIN6NSF	1-1/2" Drop In Meter Gasket NSF61	40	$3.60	$144.00
MWASH4RNSF	1" EPDM Rubber Meter Washer NSF61	100	$0.42	$42.00
MWASH3RNSF	3/4" EPDM Rubber Meter Washer NSF61	500	$0.38	$190.00
	Subtotal for items in this section			**$544.00**

Item Number	Description	Quantity	Price	Extension

Subtotal	Continued
Other Charges	Continued
Tax	Continued
TOTAL DUE	**Continued**

Ti SALES
36 Hudson Road
Sudbury, MA 01776-2039

800-225-4616
978-443-2002
Fax: 978-443-7600
www.tisales.com

Quote	QTE0072798
Quoted To	Bob Reid
Date	09/09/2024

Sold To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304-3832

Ship To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304

Customer Number	Telephone	Fax	Job Location	Job Name	Territory Manager
NIAG7	(716) 286-4371	(716) 283-9748	Niagara Falls	Restock	Marcus Anten

Expires	Estimated Delivery	Freight	Terms	Master Number
11/08/2024	various	Allowed	NET 30	381896

	11. Bolts			
XB2X25	5/8" x 2-1/2" Hex Head Bolt w/Nut Plated	60	$1.91	$114.60
XB2X3	5/8" x 3" Hex Head Bolt w/Nut Plated	40	$1.72	$68.80
XB3X35	3/4" x 3-1/2" Hex Head Bolt w/Nut Plated	80	$2.68	$214.40
	Subtotal for items in this section			**$397.80**

Item Number	Description	Quantity	Price	Extension
	2. Registers			
RW2F13	5/8" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	200	$262.99	$52,598.00
RW2F23	3/4" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
RW2F33	1" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
RW2F43	1-1/2" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
RW2F53	2" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
	Subtotal for items in this section			**$63,117.60**

Item Number	Description	Quantity	Price	Extension
	3. 3" Compound			
RW3F23	3" Neptune T/T Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
RW2F13	5/8" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
	Subtotal for items in this section			**$5,259.80**

Item Number	Description	Quantity	Price	Extension

Subtotal	Continued
Other Charges	Continued
Tax	Continued
TOTAL DUE	**Continued**

Ti SALES
36 Hudson Road
Sudbury, MA 01776-2039

800-225-4616
978-443-2002
Fax: 978-443-7600
www.tisales.com

Quote	QTE0072798
Quoted To	Bob Reid
Date	09/09/2024

Sold To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304-3832

Ship To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304

Customer Number	Telephone	Fax	Job Location	Job Name	Territory Manager
NIAG7	(716) 286-4371	(716) 283-9748	Niagara Falls	Restock	Marcus Anten

Expires	Estimated Delivery	Freight	Terms	Master Number
11/08/2024	various	Allowed	NET 30	381896

	4. 4" Compound			
RW3F33	4" Neptune T/T Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
RW2F23	3/4" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
	Subtotal for items in this section			**$5,259.80**

Item Number	Description	Quantity	Price	Extension
	5. 4" Protectus			
RW5F63	4" Neptune HP Protectus III Register Integrated E-CODER R900i Cubic Feet	6	$262.99	$1,577.94
RW2F33	1" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	6	$262.99	$1,577.94
	Subtotal for items in this section			**$3,155.88**

Item Number	Description	Quantity	Price	Extension
	6. 6" Compound			
RW3F43	6" Neptune T/T Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
RW2F33	1" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
	Subtotal for items in this section			**$5,259.80**

Item Number	Description	Quantity	Price	Extension
	7. 6" Protectus			
RW5F73	6" Neptune HP Protectus III Register Integrated E-CODER R900i Cubic Feet	6	$262.99	$1,577.94
RW2F43	1-1/2" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	6	$262.99	$1,577.94

Subtotal	Continued
Other Charges	Continued
Tax	Continued
TOTAL DUE	**Continued**

Ti SALES
36 Hudson Road
Sudbury, MA 01776-2039

800-225-4616
978-443-2002
Fax: 978-443-7600
www.tisales.com

Quote	QTE0072798
Quoted To	Bob Reid
Date	09/09/2024

Sold To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304-3832

Ship To: Niagara Falls Water Board
5815 Buffalo Ave.
Niagara Falls NY 14304

Customer Number	Telephone	Fax	Job Location	Job Name	Territory Manager
NIAG7	(716) 286-4371	(716) 283-9748	Niagara Falls	Restock	Marcus Anten

Expires	Estimated Delivery	Freight	Terms	Master Number
11/08/2024	various	Allowed	NET 30	381896

Item Number	Description	Quantity	Price	Extension
	7. 6" Protectus			
	Subtotal for items in this section			**$3,155.88**
Item Number	**Description**	**Quantity**	**Price**	**Extension**
	8. 8" Protectus			
RW5F83	8" Neptune HP Protectus III Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
RW2F53	2" Neptune T-10 Register Integrated E-CODER R900i Cubic Feet	10	$262.99	$2,629.90
	Subtotal for items in this section			**$5,259.80**
Item Number	**Description**	**Quantity**	**Price**	**Extension**
	9. R900V4			
R900V4	Neptune R900 RF Endpoint Wall Mount V4	40	$140.00	$5,600.00
	Subtotal for items in this section			**$5,600.00**
Quoted By:	Travis Rivera			

Subtotal	$220,716.23
Other Charges	$0.00
Tax	$0.00
Total Due	**$220,716.23**

Visit our website @ www.tisales.com

If you are in agreement with this quote and wish to order, please sign, date, and fax back to 978-443-7600 or email us at orders@tisales.com

Signature:_____ **Date:**_____

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-005

AUTHORIZING ENGINEERING SERVICES FOR LASALLE SSES PHASES 2 AND 3

WHEREAS, the Niagara Falls Water Board ("NFWB") issued request for proposals ("RFP") 2022-01 for Professional Engineering Services for LaSalle Area Sanitary Sewer Evaluation Survey ("SSES") work, and in December 2022 accepted the proposal for this work received from Arcadis and authorized Arcadis to proceed with Phase 1 of that work; and

WHEREAS, the goal of the SSES engineering work is to produce a report identifying sources of inflow and infiltration ("I&I") and a corrective action plan for reducing I&I sources in future years for specific sections of the LaSalle sanitary sewer system, referred to as the Phase 1, Phase 2, and Phase 3 areas; and

WHEREAS, this work is to be performed in connection with a 2009 Order on Consent between the NFWB and NYSDEC, No. R9020080528-32, for the abatement of Sanitary Sewer Overflows ("SSO"), and the scope of work described in the RFP was determined following negotiations with NYSDEC to modify the original schedule of work associated with the Order on Consent in a manner that will help direct investment of corrective action funds into the most effective projects; and

WHEREAS, now that the Phase 1 work nearly is complete, NFWB staff recommend that the Board authorize Phase 2 and Phase 3 to proceed concurrently, in order to promote efficiency and savings by reducing mobilization costs and to stay on schedule for work; and

WHEREAS, Arcadis has agreed that engineering firm JM Davidson, a NYS Certified Woman-owned Business Enterprise, will perform the field work for the Phase 2 and Phase 3 SSES, which will allow the NFWB to exceed its WBE utilization goals for this procurement; and

WHEREAS, the NFWB has grant funding to correct the physical issues identified in this SSES work, and was able to perform most of the Phase 1 recommendations using in-house crews, and intends to do the same and to seek grant reimbursement for its in-house labor costs for the work recommended in Phases 2 and 3;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board hereby Arcadis to complete the Professional Engineering Services for LaSalle Area Sanitary Sewer Evaluation Survey SSES – Phases 2 and 3 as set forth in that firm's December 8, 2022 proposal for a total fee not to exceed $260,960.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
CIP Item No. S-3, LaSalle Area Sewer Improvements (SSO)

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By:

_____
Nicholas J. Forster, Chairman

Vote Witnessed By:

_____
Sean W. Costello, Secretary to Board

The following page is an extract from Arcadis's proposal dated December 8, 2022: Professional Engineering Services for LaSalle Area Sanitary Sewer Evaluation Survey (SSES).

The complete proposal is available for review as part of the December 2022 NFWB Meeting Agenda Packet, available at: https://nfwb.org/app/uploads/2022/12/December-19-2022-NFWB-Meeting-Agenda-Packet.pdf

Niagara Falls Water Board Request for Proposal No. 2022-01 Fee Proposal – Phase 2 Sewersheds (81st & Frontier 2 and 80th & Lindbergh)		
Task Name	**Project Team Hours**	**Fee**
Task 1. Project Management Support	54	$8,030
Task 2. Smoke Testing	180	$25,190
Task 3. Flow Isolation and Measurement (night-time weiring)	125	$16,670
Task 4. Review of CCTV inspection reports and manhole Inspection Reports Completed by NFWB Staff Holding NASSCO PACP Certification	114	$15,850
Task 5. Outfall/SSO Conditions Assessment	-	-
Task 6. Focused SSES	-	$10,000
Task 7. Report and Recommendations	138	$19,600
Task 8. Post-Construction Flow Monitoring	200	$27,970
TOTAL	811	$123,390

Niagara Falls Water Board Request for Proposal No. 2022-01 Fee Proposal – Phase 3 Sewersheds (88th & Mang)		
Task Name	**Project Team Hours**	**Fee**
Task 1. Project Management Support	54	$8,590
Task 2. Smoke Testing	190	$26,950
Task 3. Flow Isolation and Measurement (night-time weiring)	130	$17,920
Task 4. Review of CCTV inspection reports and manhole Inspection Reports Completed by NFWB Staff Holding NASSCO PACP Certification	118	$16,960
Task 5. Outfall/SSO Conditions Assessment	45	$6,250
Task 6. Focused SSES	-	$10,000
Task 7. Report and Recommendations	138	$20,970
Task 8. Post-Construction Flow Monitoring	200	$29,930
TOTAL	875	$137,570

FEE REVIEW AND NEGOTIATION

We developed these fees based on providing NFWB the same high-value service that we have in the past and we would welcome the opportunity to sit down to review and refine our scope and fee to meet NFWB's needs. We have always found this process to be beneficial and critical to establishing clear expectations before starting the project.

The fee proposed above fully meets NFWB's 30% M/WBE participation goals. We are actively trying to identify an SDVOB partner to also meet the respective 6% goal.

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-006

FINAL PAYMENT TO MOLEY INDUSTRIES FOR REBUILDING OF WTP LEAD HIGH LIFT PUMP NO. 2

WHEREAS, the two lead high lift pumps at the Niagara Falls Water Board Water Treatment Plant ("WTP") are original to the plant; and

WHEREAS, on March 30, 2024 High Lift Lead Pump No. 2 failed, and after consultation with WTP Operations Staff, the Acting Executive Director at that time determined that the unavailability of one of the two high lift lead pumps constituted an emergency; and

WHEREAS, Moley Industries was contracted to rebuild High Lift Lead Pump No. 2 on an emergency basis, previously submitted invoices in the amount of $43,189.16, payment of which were authorized by the Board pursuant to Resolution 2024-07-003, and Moley now has submitted invoices for the remainder of the work performed which total $141,449.84;

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board authorizes the Executive Director to pay to Moley Industries the sum of $141,449.84 in addition to the $43,189.16 previously authorized by Resolution 2024-07-003, bringing the final total sum authorized to be paid to for that firm's services in connection with emergency rebuilding of WTP Lead High Lift Pump No. 2 to $184,639.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Capital Line WTP-1.1, WTP Large Pump Replacements.
Capital Line Supplied by: Doug Williamson

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By: Vote Witnessed By:

_____ _____

Nicholas J. Forster, Chairman Sean W. Costello, Secretary to Board

Parent Company of Moley Electromechanical
Solutions and Moley Magnetics and Equipment

Remit To: 5202 Commerce Drive
Lockport, NY 14094
Tel: 716-434-4023 Fax:
716-434-5893
Email: Accounting@moleyinc.com

Invoice

Date	Invoice
6/30/2024	33043

Bill To	Ship To
Niagara Falls Water Board 5815 Buffalo Avenue Niagara Falls, NY 14304	Niagara Falls Water Board 5815 Buffalo Avenue Niagara Falls, NY 14304 Attn: Neil

Account	Purchase Order	Sales Order	Terms	Ship Date	Ship Via	Rep
	Verbal Mike	29839	Net 30	6/28/2024	Our Delivery	SH007

Item	Description	Ordered	Invoiced	U/M	Rate	Amount
Repair	R-24-2629 Floway Pump, Type MKM, Flow Rate 10760, Serial No. 15654-5-1, RPM, 1180, Size 28, Power 700, 2 Stage, Hd. 205.0 Disassemble the pump. Inspect all parts. Measure all parts. Bowl Shaft is bad and needs to be replaced. Strainer bearing needs to be replaced. All bowl bearings need to be replaced. Bottom bowl to impeller wear ring is bad. All 3 couplings had to be cut off. These need to be replaced. Spider coupling bearings need to be replaced. Discharge bearing needs to replaced. Sandblast all column tubes, discharge head, bowls and strainer section. Press out the suction bowl bearing. Fabricate and install a new suction bearing. Press out the bowl bearings. Fabricate and install 4 new bowl bearings. Press out the discharge bearing. Fabricate and install a new discharge head bearing. Fabricate 3 new couplings. Fabricate a new bowl shaft. Set up the bowl in the VTL. Skim cut the bow. Set up the impeller in the lathe. Turn off old wear ring. Fabricate a new wear ring and install the new wear ring on the impeller. Set up the spiders in the lathe. Skim cut the spiders.	1	1		99,502.65	99,502.65

Credit Card Payments are Subject to a 3% Convenience Fee.

Wiring/ACH Instructions:
KeyBank
Routing: 021300077
Account: 321811002161

THE APPLICABLE TERMS AND CONDITIONS OF MOLEY MAGNETICS, INC., AVAILABLE AT THE APPLICABLE LINK(S) BELOW AS OF THE DATE HEREOF, ARE HEREBY SPECIFICALLY INCORPORATED HEREIN BY REFERENCE AND ARE MADE A PART HEREOF AS IF SPECIFICALLY SET FORTH HEREIN. BUYER IS ADVISED TO REVIEW SUCH TERMS AND CONDITIONS BEFORE ENTERING INTO THIS CONTRACT

https://www.moleymagneticsinc.com/terms-and-conditions-manufactured-products/
https://www.moleymagneticsinc.com/terms-and-conditions-repair-services/
https://www.moleymagneticsinc.com/terms-and-conditions-distributed-products/
https://www.moleymagneticsinc.com/services/request-material-authorization-rma/

Subtotal	
Sales Tax (8.0%)	
Total	
Payments/Credits	
Balance Due	

Parent Company of Moley Electromechanical Solutions and Moley Magnetics and Equipment

Remit To: 5202 Commerce Drive
Lockport, NY 14094
Tel: 716-434-4023 Fax: 716-434-5893
Email: Accounting@moleyinc.com

Invoice

Date	Invoice
6/30/2024	33043

Bill To

Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, NY 14304

Ship To

Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, NY 14304
Attn: Neil

Account	Purchase Order	Sales Order	Terms	Ship Date	Ship Via	Rep
	Verbal Mike	29839	Net 30	6/28/2024	Our Delivery	SH007

Item	Description	Ordered	Invoiced	U/M	Rate	Amount
	Fabricate new bearings for inside the spiders. Set up the shafts in the lathe. Skim cut the bearing sleeves to the new spider sizes. Dynamically balance the rotating assembly. Paint the complete pump with an epoxy coat NSF 61 paint. Furnish and install new 316SS hardware. Dry fit all parts. Disassemble for shipment.					
Miscellaneous	24" Blank Flange and Gasket	1	1		2,495.00	2,495.00
Shipping-Inb...	Shipping on Inbound Parts.	1	1		1,352.12	1,352.12

Credit Card Payments are Subject to a 3% Convenience Fee.

Wiring/ACH Instructions:
KeyBank
Routing: 021300077
Account: 321811002161

THE APPLICABLE TERMS AND CONDITIONS OF MOLEY MAGNETICS, INC., AVAILABLE AT THE APPLICABLE LINK(S) BELOW AS OF THE DATE HEREOF, ARE HEREBY SPECIFICALLY INCORPORATED HEREIN BY REFERENCE AND ARE MADE A PART HEREOF AS IF SPECIFICALLY SET FORTH HEREIN. BUYER IS ADVISED TO REVIEW SUCH TERMS AND CONDITIONS BEFORE ENTERING INTO THIS CONTRACT

https://www.moleymagneticsinc.com/terms-and-conditions-manufactured-products/
https://www.moleymagneticsinc.com/terms-and-conditions-repair-services/
https://www.moleymagneticsinc.com/terms-and-conditions-distributed-products/
https://www.moleymagneticsinc.com/services/request-material-authorization-rma/

Subtotal	USD 103,349.77
Sales Tax (8.0%)	USD 0.00
Total	USD 103,349.77
Payments/Credits	USD 0.00
Balance Due	**USD 103,349.77**

Parent Company of Moley Electromechanical Solutions and Moley Magnetics and Equipment

Remit To: 5202 Commerce Drive
Lockport, NY 14094
Tel: 716-434-4023 Fax:
716-434-5893
Email: Accounting@moleyinc.com

Invoice

Date	Invoice
9/10/2024	33662

Bill To	Ship To
Niagara Falls Water Board 5815 Buffalo Avenue Niagara Falls, NY 14304	Niagara Falls Water Board 5815 Buffalo Avenue Niagara Falls, NY 14304 Attn: Neil

Account	Purchase Order	Sales Order	Terms	Ship Date	Ship Via	Rep
	Verbal Mike	29839	Net 30	8/29/2024	Our Delivery	SH007

Item	Description	Ordered	Invoiced	U/M	Rate	Amount
Field	Onsite service to install above pump Date: Tuesday 8/27 thru Thursday 8/29 Tech: 3 Technicians. 8/27/24 21 ST, 1 OT 8/28/24 24 ST, 1 OT 8/29/24 24 ST, 1 OT On-site Contacts: Dave Conti (716-344-4819) Bob Donald (716-535-9497)	1	1		13,781.25	13,781.25

Credit Card Payments are Subject to a 3% Convenience Fee.

Wiring/ACH Instructions:
KeyBank
Routing: 021300077
Account: 321811002161

THE APPLICABLE TERMS AND CONDITIONS OF MOLEY MAGNETICS, INC., AVAILABLE AT THE APPLICABLE LINK(S) BELOW AS OF THE DATE HEREOF, ARE HEREBY SPECIFICALLY INCORPORATED HEREIN BY REFERENCE AND ARE MADE A PART HEREOF AS IF SPECIFICALLY SET FORTH HEREIN. BUYER IS ADVISED TO REVIEW SUCH TERMS AND CONDITIONS BEFORE ENTERING INTO THIS CONTRACT

https://www.moleymagneticsinc.com/terms-and-conditions-manufactured-products/
https://www.moleymagneticsinc.com/terms-and-conditions-repair-services/
https://www.moleymagneticsinc.com/terms-and-conditions-distributed-products/
https://www.moleymagneticsinc.com/services/request-material-authorization-rma/

Subtotal	USD 13,781.25
Sales Tax (8.0%)	USD 0.00
Total	USD 13,781.25
Payments/Credits	USD 0.00
Balance Due	**USD 13,781.25**

Parent Company of Moley Electromechanical Solutions and Moley Magnetics and Equipment

Remit To: 5202 Commerce Drive
Lockport, NY 14094
Tel: 716-434-4023 Fax:
716-434-5893
Email: Accounting@moleyinc.com

Invoice

Date	Invoice
8/30/2024	33585

Bill To

Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, NY 14304

Ship To

Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, NY 14304
Attn: Neil

Account	Purchase Order	Sales Order	Terms	Ship Date	Ship Via	Rep
	Verbal Mike	29839	Net 30	8/19/2024	Our Delivery	SH007

Item	Description	Ordered	Invoiced	U/M	Rate	Amount
Field	Onsite service to de-scale the inside of the pump pit. Re-lign the pump pit with new NSF61 Balzona. Clean pit when finished. Date: August 1st, 2nd, 5th and 19th. Tech: Connor and Jordan On-site Contact: Rob	1	1		24,318.82	24,318.82

Credit Card Payments are Subject to a 3% Convenience Fee.

Wiring/ACH Instructions:
KeyBank
Routing: 021300077
Account: 321811002161

THE APPLICABLE TERMS AND CONDITIONS OF MOLEY MAGNETICS, INC., AVAILABLE AT THE APPLICABLE LINK(S) BELOW AS OF THE DATE HEREOF, ARE HEREBY SPECIFICALLY INCORPORATED HEREIN BY REFERENCE AND ARE MADE A PART HEREOF AS IF SPECIFICALLY SET FORTH HEREIN. BUYER IS ADVISED TO REVIEW SUCH TERMS AND CONDITIONS BEFORE ENTERING INTO THIS CONTRACT

https://www.moleymagneticsinc.com/terms-and-conditions-manufactured-products/
https://www.moleymagneticsinc.com/terms-and-conditions-repair-services/
https://www.moleymagneticsinc.com/terms-and-conditions-distributed-products/
https://www.moleymagneticsinc.com/services/request-material-authorization-rma/

Subtotal	USD 24,318.82
Sales Tax (8.0%)	USD 0.00
Total	USD 24,318.82
Payments/Credits	USD 0.00
Balance Due	**USD 24,318.82**

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-007

PAYMENT FOR EMERGENCY 12" COMBINED SEWER REPAIR, 2200 BLOCK OF PIERCE AVENUE

WHEREAS, after performing camera inspections following reports of a pavement depression or sinkhole on Pierce Avenue, the Niagara Falls Water Board ("Water Board") discovered a section of 12" combined sewer on Pierce Avenue to be in a damaged or deteriorated condition and requiring repair without undue delay in order to avoid service interruptions or damage to the street; and

WHEREAS, because of the depth of the sewer at those locations and the length of the collapsed pipe sections, the requisite repairs are beyond the scope of what Water Board crews can complete; and

WHEREAS, on behalf of the Water Board, the City of Niagara Falls Engineering Department prepared plans and solicited bids for the needed combined sewer repairs, and two base bids for the project were received on September 9, 2024, one from J.R. Swanson Plumbing Co., Inc., in the amount of $23,350 and one from 4th Generation Contracting Corp. in the amount of $58,690; and

WHEREAS, pursuant to Section 5.1 of the Water Board procurement policy, the Executive Director authorized the low bidder to proceed with the work immediately in order to protect against further damage to the street; and

WHEREAS, upon excavation, an existing domestic lead water service was encountered which required removal and replacement; and

WHEREAS, J.R. Swanson agreed to remove and replace the lead water service line for $5,200, a price determined to be fair and reasonable; and

WHEREAS, the overall total cost of this combined sewer repair was reduced because Water Board outside maintenance personnel will complete a portion of the pavement restoration;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board authorizes the Executive Director to pay to J.R. Swanson Plumbing Co., Inc., an amount not to exceed $28,550 for the repair of a 12" combined sewer located on the 2200 block of Pierce Avenue, said sum representing the base bid price plus the agreed cost for replacement of an existing domestic lead water service line encountered during the repair.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Capital Line S-8 Sewer Infrastructure Projects-Miscellaneous

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By:

_____
Nicholas J. Forster, Chairman

Vote Witnessed By:

_____
Sean W. Costello, Secretary to Board

City of Niagara Falls, New York

P.O. Box 69, Niagara Falls, NY 14302-0069

ENGINEERING DEPARTMENT

September 12, 2024

Niagara Falls Water Board
Mayor Michael C. O'Laughlin
Niagara Falls Water Treatment Facility
5815 Buffalo Avenue
Niagara Falls, New York 14304

Attention: Mr. Sean Costello, Esq.
Executive Director

Mr. Costello:

Attached to this brief letter please find the standard City of Niagara Falls Bid Tabulation Summary Sheet(s) for the following project:

12" DIA. COMBINED SEWER REPAIR PROJECT
2200 BLK. PIERCE AVENUE

Arithmetical and typographical errors (if any) have been corrected and noted and the entire package is offered for your continued review, reference, and ultimate contract award. The verified and qualified low bidder for this project is:

J. R. SWANSON PLUMBING CO., INC.
413 101ST STREET
NIAGARA FALLS, NEW YORK 14304

at the total base bid item price of: **$ 23,350.00**

Additionally, upon the discovery of an existing domestic lead water service, a price of $5200.00 was solicited from the contractor and accepted for its complete removal and replacement. This necessary addition to the project's scope will bring the maximum contract total to **$28,550.00**

Please contact me at your convenience if questions arise or additional clarification is deemed necessary.

Sincerely,

Robert Buzzelli
Civil Engineer III

attachments: (2)

cc: file

CONTRACT: 12" COMBINED SEWER REPAIR PROJECT
2200 BLK. PIERCE AVENUE

BID OPENING: SEPTEMBER 9, 2024

SHEET 01 OF 01

BID SECURITY: - 5% -

#	BID ITEM	QTY.	UNIT	J.R. SWANSON PLUMBING CO., INC. PRICE	J.R. SWANSON PLUMBING CO., INC. AMOUNT	[illegible] PRICE	[illegible] AMOUNT	4TH GENERATION CONTRACTING CORP. PRICE	4TH GENERATION CONTRACTING CORP. AMOUNT
1A	NEW 12" DIA. SDR 35 PVC SEWER PIPE	13	L.F.	1,173.08	15,250.00			3,000.00	39,000.00
1B	NEW 6" DIA. SDR 35 PVC SEWER PIPE	60	L.F.	83.33	4,999.80			30.00	1,800.00
2	PAVEMENT SAWCUTTING	60	L.F.	5.00	300.00			1.00	60.00
3	EXISTING MANHOLE ALTERATIONS	NIC	EA.		0.00				0.00
4	SUBBASE COURSE TYPE 2 STONE (12" THK)	25	S.Y.	45.00	1,125.00			30.00	750.00
5	ASPHALT CONCRETE BASE COURSE CLASS - T1 (8" THK.	25	S.Y.	60.00	1,500.00			1.00	25.00
6	ASPHALT CONCRETE BINDER COURSE - TYPE 3 (2" THK.)	25	S.Y.	7.00	175.00			1.00	25.00
7	ASPHALT CONCRETE TOP COURSE - TYPE 7 (1-1/2" THK.)	25	S.Y.	0.00	0.00			1.00	25.00
8	TEMPORARY BYPASS PUMPING	NIC	DAYS						
9	WATER SERVICE RESTIORATION(S) (COMPLETE)	1	EA.	0.00	0.00			3,000.00	3,000.00
10	ROCK EXCAVATION and DISPOSAL	5	C.Y.	0.00	0.00			1.00	5.00
11	MAINTENANCE AND PROTECTION OF TRAFFIC	1	L.S	0.00	0.00			12,000.00	12,000.00
12	MOBILIZATION	1	L.S	0.00	0.00			2,000.00	2,000.00
					$23,350.00				$58,690.00
					1				2

J.R. SWANSON PLUMBING & HEATING CO., INC.
413- 103rd St, Niagara Falls, New York, 14304
Phone: (716) 283-3802 Fax: (716) 283-4549
Florida Division, LIC# CFC1429578
1681 Benchmark Avenue, Suite 115, Fort Myers, FL 33905
Phone: (239) 542-7473 Fax: (716) 283-4549

SERVICE/WORK ORDER

№ 408384

CUSTOMER INFORMATION

Name/Caller: City OF NF Eng & Water Board
Address/Job Location: 2241-43 Pierce Ave
NF Zip:
Billing To:
Address:
Zip:
Date of Order: 9-10-24
Starting Date:
Order Taken By/Tech: Bob Hubler
Job Name:
Customer Order No
Terms
Home/Cell Phone: Ray + Bob B. + Mike E.
Work Phone:
☐ Day Work ☐ Contract ☐ Extra
☐ Overtime ☐ Ohio Time ☐ Estimate
☐ Cash ☐ Check ☐ Financing
☐ Credit APP. CODE

DESCRIPTION OF WORK

Replace 3/4" Lead Water Service From Water Main To Curb Stop With 3/4" Copper. Backfill to Grade with Stone. Others to Do Road restoration

QTY	MATERIAL & EQUIPMENT	UNIT	AMOUNT
	CITY OF NF ENG & WATER BOARD CITY HALL Niagara Falls, N.Y. 14305 APPROVED DISAPPROVED APPROVED AS NOTED Initials [illegible] Date 9-30-24		

LABOR	HRS	RATE	AMOUNT

SUMMARY	
TOTAL MATERIALS	
TOTAL LABOR	
OTHER CHARGES	
DISCOUNT	
TAX	$ Ø
TOTAL	
3% CC FEE	
BALANCE DUE	$ 5200.00

I hereby acknowledge the satisfactory completion of the above described work.

Customer Name Date

Customer Signature Date

Thank You!

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-008

WATER TREATMENT PLANT ROOF REPLACEMENT
CHANGE ORDER APPROVAL

WHEREAS, the roof on the Niagara Falls Water Board ("Water Board") Water Treatment Plant ("WTP") is original to that building which was completed in 1997 and is outside of its warranty period; and

WHEREAS, in 2023 the Water Board awarded the bid for replacement of the WTP roof to Weaver Metal and Roofing, Inc., for a total sum not to exceed $3,362,000; and

WHEREAS, the roof replacement project nearly is complete, and Water Board staff recommend proceeding with replacing the roof on the WTP guard post and adding to the original scope of work replacement of the roof on the sludge building, which is separate from the main WTP buildings but has the oldest roof of any building on the property, as the sludge building serviced the former WTP at 5317 Buffalo Avenue and continues to serve the present site, containing pumps and instrumentation that are critical to the treatment process; and

WHEREAS, through Change Order No. 6, roofs on these two buildings will be replaced, and after prior change orders, credits, and application of an allowance that was included in the original bid, the total contract price will increase by $44,471;

WHEREAS, the work to be performed pursuant to the change order will be completed in 2024 and will be warrantied along with the other roof replacement work performed by Weaver;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board hereby authorizes the Executive Director to execute Water Treatment Plant Roof Replacement Project Change Order No. 6, dated August 30, 2024, to authorize Weaver Metal & Roofing, Inc., to replace the roof on the guard post and sludge buildings for a net addition of $44,471, bringing the total not-to-exceed sum approved for this project to $3,417,556.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
CIP Item No. WTP-5, WTP Roofing
Capital Line Supplied by: D. Williamson

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By:

_____
Nicholas J. Forster, Chairman

Vote Witnessed By:

_____
Sean W. Costello, Secretary to Board

AIA® Document G701® – 2017

Change Order

PROJECT: *(Name and address)* Water Treatment Plant Roof Reconstruction 5815 Buffalo Ave. Niagara Falls, NY 14304	**CONTRACT INFORMATION:** Contract For: General Construction Date: 9/21/2023	**CHANGE ORDER INFORMATION:** Change Order Number: 006 Date: 8/30/2024
OWNER: *(Name and address)* Niagara Falls Water Board 5815 Buffalo Ave. Niagara Falls, NY 14304	**ARCHITECT:** *(Name and address)* CPL 726 Exchange Street Suite 920 Buffalo, NY 14210	**CONTRACTOR:** *(Name and address)* Weaver Metal & Roofing, Inc. 40 Appenheimer Ave. Buffalo, NY 14214

THE CONTRACT IS CHANGED AS FOLLOWS:
(Insert a detailed description of the change and, if applicable, attach or reference specific exhibits. Also include agreed upon adjustments attributable to executed Construction Change Directives.)

The original Contract Sum was	$	3,362,000.00
The net change by previously authorized Change Orders	$	11,085.00
The Contract Sum prior to this Change Order was	$	3,373,085.00
The Contract Sum will be increased by this Change Order in the amount of	$	44,471.00
The new Contract Sum including this Change Order will be	$	3,417,556.00

The Contract Time will be increased by sixty (60) days.
The new date of Substantial Completion will be December 15, 2024

NOTE: This Change Order does not include adjustments to the Contract Sum or Guaranteed Maximum Price, or the Contract Time, that have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

CPL **ARCHITECT** *(Firm name)*	Weaver Metal & Roofing, Inc. **CONTRACTOR** *(Firm name)*	Niagara Falls Water Board **OWNER** *(Firm name)*
SIGNATURE	**SIGNATURE**	**SIGNATURE**
K. Patterson, AIA **PRINTED NAME AND TITLE**	**PRINTED NAME AND TITLE**	**PRINTED NAME AND TITLE**
DATE	**DATE**	**DATE**

August 30, 2023

Sean Costello,
Acting Executive Director
Niagara Falls Water Beard
Micheal C O'Laughlin Water Treatment Plant
5815 Buffalo Avenue
Niagara Falls, NY 14304

Re: Niagara Falls Water Board
Water Treatment Plant
Roof Reconstruction

Dear Mr. Costello,

Change order #006 includes the following items totaling a $44,471.00 increase in the contract sum.

Cancel Deduct for Guard House	$20,471.00
Sludge Building	$49,000.00
Remaining Allowance	$(25,000.00)
Total:	$44,471.00

If you have any questions or require any additional information, please contact me at (716) 218-4746

Very truly yours,

Kisha Patterson, AIA
Project Architect

Enclosures

C: File

	To
Niagara Falls Water Treatment Plant Roof Reconstruction 5815 Buffalo Avenue Niagara Falls, NY 14304	CPL Architecture 26 Mississippi Street Buffalo, NY 14203

Change Order Summary

#	Date	Description	Cost	Status	Approved Amounts
#1	9/12/2023	Modification to Perimeter Detail	$ (15,497.00)	Approved	$ (15,497.00)
#2	9/27/2023	Hot Stack Fabrication & Install	$ 4,878.00	Approved	$ 4,878.00
#3	9/27/2023	RTU Grounding / LPS Installation	$ 575.00	Approved	$ 575.00
#4	3/7/2024	Addt'l Tapered - Sloped Concrete Deck	$ 41,600.00	Approved	$ 41,600.00
#5	3/28/2024	Deduct for Guard House	$ (20,471.00)	Approved	$ (20,471.00)
#6	8/27/2024	Cancel Deduct for Guard House	$ 20,471.00		$ 20,471.00
#7	8/27/2024	Sludge Building	$ 49,000.00		$ 49,000.00
#8	8/27/2024	Remaining Allowance	$ (25,000.00)		$ (25,000.00)
#9			$ -		$ -
#10			$ -		$ -
#11			$ -		$ -
#12			$ -		$ -
#13			$ -		$ -
#14			$ -		$ -
#15			$ -		$ -
#16			$ -		$ -
#17			$ -		$ -
#18			$ -		$ -
#19			$ -		$ -
#20			$ -		$ -
				TOTAL	**$ 55,556.00**

WEAVER METAL & ROOFING

A 40 Appenheimer Avenue
Buffalo NY 14214

P 716.891.8844
F 716.891.9443

W weavermrinc.com

Date: 8/27/2024 **Job Reference:**

Proposal For	**To**
Niagara Falls Water Treatment Plant Roof Reconstruction 5815 Buffalo Avenue Niagara Falls, NY 14304	CPL Architecture 26 Mississippi Street Buffalo, NY 14203 **Attention:** Kisha Patterson

Scope of Work

Supply all labor, material, equipment and supervision necessary to perform the following scope of work:

- Remove and dispose asbestos containing flashing and flashing mastic per code rule 56.
- Remove existing gravel stop, add wood blocking and install fall protection.
- Remove 700 sq ft existing roofing to concrete deck.
- Adhere 725 TR vapor barrier in CavGrip III.
- Adhere tapered insulation system in low rise foam adhesive to promote positive drainage.
- Adhere 1/2" Securock coverboard in low rise foam adhesive.
- Install Carlisle .090 nonreinforced EPDM, and details to satisfy 30-year warranty.
- Install .050 aluminum fascia, color seleted by owner.
- Furnish and install lightning protection.
- Provide owner with 30-year 90mph manufacturer's warranty (NOTE: warranty price is only valid if work is completed under the existing contract)

$49,000 (Forty-Nine Thousand Dollars)

Notes

Price does not include replacement of roof hatch, plumbing work or deck repairs, if necessary.

Thank you for considering Weaver Metal and Roofing, Inc. as a potential provider of roofing services for this project.

WEAVER METAL & ROOFING

A 40 Appenheimer Avenue
Buffalo NY 14214

P 716.891.8844
F 716.891.9443

W weavermrinc.com

Date: 3/28/2024 **Job Reference:**

To

Niagara Falls Water Treatment Plant Roof Reconstruction
3815 Buffalo Ave
Niagara Falls, NY 14304

CPL Architecture
26 Mississippi St, Buffalo, NY 14203
Attention: Kisha Patterson

Change Order #4: Deduct for Guard House Roof

	LABOR	RATE	HOURS	COST
1	R Journeymen: Mobilize / setup safety	$ 75.68	(16.0)	$ (1,210.88)
2	R Journeymen: Remove gravel, tearoff & install VB	$ 75.68	(40.0)	$ (3,027.20)
3	R Journeymen: Install fully adhered EPDM	$ 75.68	(64.0)	$ (4,843.52)
4	SM Journeymen: Fabricate and install fascia	$ 86.02	(28.0)	$ (2,408.56)

	MATERIAL	UNIT	QUANTITY	$ PER UNIT	COST
1	CavGrip III	cyl	-2	$ 740.00	$ (1,480.00)
2	725 TR	sq	-3	$ 245.00	$ (735.00)
3	Tapered Insulation Package & Drain Sumps	ea	-0.5	$ 610.00	$ (305.00)
4	1/2" Securock	sq	-3	$ 86.00	$ (258.00)
5	Low Rise Foam Adhesive	kit	-1	$ 1,800.00	$ (1,800.00)
6	.060 EPDM	sq	-3	$ 107.00	$ (321.00)
7	6" Seam Tape	roll	-1	$ 170.00	$ (170.00)
8	Low VOC Primer	gal	-1	$ 120.00	$ (120.00)
9	12" Elastoform	roll	-1	$ 375.00	$ (375.00)
10	Corners	ea	-12	$ 13.95	$ (167.40)
11	T Joint Patches	ea	-13	$ 6.50	$ (84.50)
12	2" Plates & 1-5/8" Fasteners	ea	-40	$ 0.75	$ (30.00)
13	Lap Sealant	ea	-10	$ 10.00	$ (100.00)
14	Drain Inserts	ea	-1	$ 225.00	$ (225.00)
15	Plywood	sheet	-5	$ 26.00	$ (130.00)
16	.050 Aluminum	sheet	-2	$ 125.00	$ (250.00)
17	26ga Galvanized	sheet	-2	$ 85.00	$ (170.00)
18	Cleat Fasteners	ea	-120	$ 0.50	$ (60.00)

	SUBCONTRACTOR	UNIT	QUANTITY	$ PER UNIT	COST
1	Dumpsters	ea	-1	$ 700.00	$ (700.00)
2	Lightning Protection	ea	-1	$ 1,500.00	$ (1,500.00)

LABOR TOTAL	**$ (11,490.16)**
MATERIAL TOTAL	**$ (6,780.90)**
SUBCONTRACTOR TOTAL	**$ (2,200.00)**
15% O&P	**$ -**
TOTAL	**$ (20,471.00)**

Notes

Deduct for removal of Guard House roof from scope.

Thank you for using Weaver Metal and Roofing, Inc. as the provider of roofing services for this project.

Authorized Signature

This proposal may be withdrawn by us if not accepted within 30 days.

(Contractor's Signature)

(Date)

Acceptance of Proposal

The above prices, specifications and conditions are hereby accepted.

(Authorizing Signature)

(Date)

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-009

ESA AGREEMENT WITH EPA
RELATIVE TO RISK MANAGEMENT PROGRAM

WHEREAS, in June 2022 EPA representatives conducted an inspection of the Risk Management Program at the Niagara Falls Water Board's Water Treatment Plant ("WTP") and determined that the WTP's program was not in full compliance with certain regulations, relating in part to inadequate or incomplete documentation and record keeping and to certain mechanical deficiencies in related equipment; and

WHEREAS, on learning of these issues, the Water Board took prompt action to correct them, establishing and maintaining systems and procedures to formally document compliance and upgrading mechanical equipment, including by making short-term repairs to the WTP chlorine scrubber and by contracting to replace that scrubber with a brand-new unit; and

WHEREAS, the Water Board having corrected the regulatory compliance issues identified by EPA, EPA now has offered to resolve this matter through an Expedited Settlement Agreement ("ESA") which does not require the Water Board to admit to any specific factual findings in exchange for payment of a penalty in the sum of $10,800, which will save the Water Board the potential legal fees and other expenses and uncertainty associated with contesting this matter;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board authorizes the Executive Director to enter into an Expedited Settlement Agreement with EPA relative to matter No. CAA-02-2024-1203 and to pay to EPA a penalty in the amount of $10,800.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Budget Line: FA-1930-0000-0449.599, Judgements & Claims

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By:

_____
Nicholas J. Forster, Chairman

Vote Witnessed By:

_____
Sean W. Costello, Secretary to Board

REGION 2

NEW YORK, N.Y. 10007

EXPEDITED SETTLEMENT AGREEMENT

DOCKET NO: CAA-02-2024-1203

This ESA is issued to: Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, NY 14304

This Expedited Settlement Agreement ("ESA") is being entered into by the U.S. Environmental Protection Agency, Region 2 ("EPA"), by its duly delegated official, and by the Niagara Falls Water Board ("Respondent") pursuant to Sections 113(a)(3) and (d) of the Clean Air Act (the "Act"), 42 U.S.C. §7413(a)(3) and (d), and 40 C.F.R. §22.13(b). EPA and the United States Department of Justice have jointly determined that EPA may pursue this type of case as an administrative penalty action under Section 113(d)(1) of the Act, 42 U.S.C. §7413(d)(1).

ALLEGED VIOLATIONS

On June 14, 2022, EPA conducted an onsite inspection at Respondent's Michael C. O'Laughlin Municipal Water Plant facility, located at 5815 Buffalo Avenue in Niagara Falls, New York (the "Facility") to determine compliance with the Act's Risk Management Program regulations, promulgated at 40 C.F.R. Part 68 pursuant to Section 112(r) of the Act. Pursuant to the inspection, EPA has determined that Respondent violated the RMP regulations described in the attached Risk Management Program Findings ("Findings"). EPA described the violations in a letter sent by email to Facility representatives dated May 12, 2023.

SETTLEMENT

In consideration of the penalty assessment factors set forth in Section 113(e) of the Act, 42 U.S.C. §7413(e), and upon consideration of the entire record, the parties enter into the ESA in order to settle the violations described in the Findings for the total penalty amount of **ten thousand eight hundred dollars ($10,800).**

For purposes of this proceeding, Respondent agrees to the following: it waives any objections that it may have regarding jurisdiction; it neither admits nor denies the specific factual allegations contained in the Findings; it consents to the assessment of the penalty as stated herein; and it waives its rights to contest the allegations contained herein, or to a hearing afforded by Section 113(d)(2)(A) of the Act, 42 U.S.C. §7413(d)(2)(A), and to appeal this ESA. Each party to this action shall bear its own costs and fees, if any.

Respondent also certifies, subject to civil and criminal penalties for making a false submission to the United States Government, that Respondent has corrected the violations described in the Findings.

After signature, a scanned copy of the signed ESA must be sent by email to Francesco Maimone at the following email address: **Maimone.Francesco@epa.gov**. The original, signed ESA must be sent by certified mail to:

Francesco Maimone, Physical Scientist
Air Compliance Branch
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 2
290 Broadway, 21st Floor
New York, NY 10007-1866

The ESA, when executed by both parties and the Regional Judicial Officer and filed with the Regional Hearing Clerk, is binding on EPA and Respondent. Upon such filing and Respondent's timely payment of the penalty, EPA agrees it will not take any further civil penalty action against Respondent for the alleged violations of the Act referenced herein.

Nothing in this ESA shall affect the right of EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law. This ESA does not relieve, extinguish, or otherwise affect Respondent's obligations to comply with all applicable provisions of the Act and regulations promulgated or permits issued thereunder.

If the signed ESA is not returned to EPA Region 2 as instructed herein by Respondent within forty-five (45) days of the date of Respondent's receipt of it (or within ninety (90) days if an extension is requested and granted), the proposed ESA is withdrawn, without any prejudice regarding EPA's ability to file an enforcement action for the alleged violations identified herein.

Respondent agrees to submit a payment in full of $10,800 within thirty (30) days of the filing of a fully executed copy of this ESA with the Regional Hearing Clerk.

PAYMENT INSTRUCTIONS

EPA requests that payments be made through the **http://Pay.gov** website using the following link: **https://www.pay.gov/public/form/start/11751879.**

Please ensure that the following information is included on the payment form:

i. Amount of payment: $10,800
ii. Name of Respondent: Niagara Falls Water Board
iii. Docket No.: CAA-02-2024-1203

To ensure your payment is recorded properly, you are required to notify EPA contemporaneously with

the payment. Please send an email message or letter that references the date of the payment, the payment amount, the docket number, and your name and address to the following: Francesco Maimone, at his email or address, shown above, and to:

Jean Regna
Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency - Region 2
290 Broadway, 17th Floor
New York, NY 10007-1866
email: **Regna.Jean@epa.gov**

Milton Wise
U.S. Environmental Protection Agency
26 W. Martin Luther King Drive
Attention: FINANCE
MS: NWD
Cincinnati, OH 45268
emails: **Wise.Milton@epa.gov** and **cinwd_acctsreceivable@epa.gov**

and

Karen Maples, Regional Hearing Clerk
Office of Regional Counsel
U.S. Environmental Protection Agency - Region 2
290 Broadway, 16th Floor
New York, NY 10007-1866
email: **Maples.Karen@epa.gov**

Failure to pay the penalty when due may subject Respondent to a civil action pursuant to Section 113(d)(5) of the CAA, 42 U.S.C. §7413(d)(5), to collect the penalty, including accrued interest, attorney's fees, collection costs, and nonpayment penalties.

For purposes of the requirements of 26 U.S.C. §162(f) of the Internal Revenue Code, the cost of actions taken to come into compliance with the violations identified herein are "restitution or paid to come into compliance with law."

This ESA is effective upon filing with the Regional Hearing Clerk.

FOR RESPONDENT:

Signature: _____ Date: _____

Name (print): _____

Title (print): _____

FOR COMPLAINANT:

_____ Date: _____

Kathleen Anderson, Director
Enforcement and Compliance Assurance Division
U.S. EPA, Region 2

I hereby ratify the ESA and incorporate it herein by reference. It is so ORDERED.

_____ Date: _____

Helen Ferrara
Regional Judicial Officer
U.S. EPA, Region 2

Risk Management Program Findings
CAA §112(r) Violations

Niagara Falls Water Board
Michael C. O'Laughlin Municipal Water Plant
5815 Buffalo Avenue
Niagara Falls, NY 14304

COMPLETE THIS FORM AND RETURN IT WITH THE ESA

VIOLATION	**PENALTY AMOUNT**
Subpart D Prevention Program	
Management System [68.15(a)] The owner or operator failed to develop a management system to oversee the implementation of the risk management program elements.	*$1,200*
Process Safety Information [68.65(d)(2)] The owner or operator failed to ensure that equipment complies with recognized and generally accepted good engineering practices.	*$1,500*
Process Hazard Analysis [68.67(e)] The owner or operator failed to assure that all recommendations were resolved in a timely manner and that resolutions were documented.	*$1,500*
Operating Procedures [68.69(a)(2)(i)] The owner or operator failed to address the consequences of deviations in the operating procedures.	*$1,200*
Operating Procedures [68.69(a)(3)(iii)] The owner or operator failed to address control measures to be taken if physical contract or airborne exposure occurs in the operating procedures.	*$1,200*
Training [68.71(b)] The owner or operator failed to provide refresher training at least every three years to each employee involved in operating a process.	*$1,500*
Mechanical Integrity [68.73(e)] The owner or operator failed to correct deficiencies in equipment that were outside acceptable limits in a safe and timely matter to assure safe operation.	*$900*

Management of Change [68.75 (a)] *$1,500*
The owner or operator failed to implement written procedures to manage changes to equipment that affect a covered process.

Compliance Audits [68.79(a)] *$1,200*
The owner or operator failed to certify that the facility has evaluated compliance with the provisions of the prevention program at least every three years.

Contractors [68.87(b)(1)] *$900*
The owner or operator failed to evaluate the contract owner or operator safety performance and programs when selecting contractors.

Contractors [68.87(b)(2)] *$900*
The owner or operator failed to inform the contract owner or operator of potential hazards related to the contractors' work and the process.

Unadjusted Penalty $13,500

Adjustments to Penalty

Pursuant to EPA's "Expedited Settlement Penalty Matrix, Multiplier Factors For Calculating Proposed Penalties For Violations Found During RMP Inspections," a multiplier factor of 0.8, in consideration of the total population served (10,001-100,000 people) and the quantity of the regulated substance (>10 times the threshold quantity), is being applied to reduce the penalty.

$13,500 x 0.8 (multiplier factor) = $10,800

Total Penalty **$10,800**

The approximate cost to correct the above items: $_____

Compliance staff name: _____

Signed: _____ Date: _____

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-010

REPLACEMENT OF WWTP TRANSFORMER BPD CABLES

WHEREAS, the Niagara Falls Water Board's Wastewater Treatment Plant ("WWTP") includes a large electrical substation through which two redundant 115KV feeds pass to provide power to the WWTP; and

WHEREAS, the bushing potential device ("BPD") cables associated with the electrical feed from Line 188 require replacement in order to ensure safe and reliable transformer performance; and

WHEREAS, Water Board staff have obtained a quote dated August 21, 2024 from Ferguson Electric to furnish and install replacement BPD cables pursuant to the terms of the pre-bid high-voltage electric service contract awarded to that firm for $24,990;

NOW THEREFORE BE IT

RESOLVED, that on behalf of the Niagara Falls Water Board, its Executive Director hereby is authorized to pay to Ferguson Electric Co., Inc., an amount not to exceed $24,900 to furnish and install replacement BPD cables for electrical feed Line 188 at the WWTP substation, as described in that firm's August 21, 2024 quotation.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Capital Plan Line: WWTP-17, WWTP Infrastructure Projects – Misc.

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By: Vote Witnessed By:

_____ _____

Nicholas J. Forster, Chairman Sean W. Costello, Secretary to Board

ferguson electric
your connection to quality

Design and Engineering
- Design Build
- High, Medium & Low Voltage Retrofit
- Power System Studies
- Power Quality Solutions
- Energy Audit

Pre-Construction
- CAD, Revit, BIM & 3D
- Preliminary Budget
- One-Line Diagram Creation & Maintenance

Construction Division
- Distribution
- Branch Power
- Lighting
- Controls
- Project
- Management
- Substation
- 24 Hour Emergency Service

Line Crew Division
- Traffic / Signal Installation
- Pole Removal, Relocation, and Installation
- Overhead Line Installation Substation

Service Division
Your exclusive *TEGG® Service* provider

- Electrical preventative maintenance programs
- 24-hour emergency service
- Troubleshooting and repair

Systems Division
- Data
- Communication
- Fire Alarm
- Security

August 21, 2024

Niagara Falls Water Board
Michael C. O'Laughlin Municipal Water Plant
5815 Buffalo Avenue
Niagara Falls, NY 14304

Attention: Mr. David Conti

Re: 115kV Substation T1, BPD Cables
Proposal FE005000

Dear Dave,

We are pleased to submit this proposal for the replacements of the BPD cables associated with the 115kV-T1 transformer.

We will:
- De-energize, lockout, and make safe.
- Remove the existing cables and install the new cables.
- Perform startup testing and verify control voltages.
- Energize the transformer and functionally test.

Our price for the above is **TWENTY-FOUR THOUSAND NINE HUNDRED NINETY DOLLARS ($24,990.00).** Our price is subject to all applicable sales tax unless otherwise directed by your order to proceed. Our price is based on performing the work during normal business hours, 7:00 a.m. – 3:30 p.m., Monday through Friday, excluding holidays.

Notes:
- We will perform all work strictly according to Article 70E of the NFPA dealing with the Arc Flash Protection.
- Utility costs are not included in this proposal should any incur.
- There is a 12–14-week lead time on cables ARO.

We appreciate the opportunity to work with **Niagara Falls Water Board.**

We await your written authorization of acceptance so that we may begin work on this project in a timely, satisfactory manner.

If there are questions, please do not hesitate to contact me.

Respectfully Submitted,

FERGUSON ELECTRIC INC.

Daniel R. Schultz
Manager, Service Division

ferguson electric
your connection to quality

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-011

CHANGE ORDER ONE AND FINAL FOR 16 INCH CONCRETE WATER MAIN REPAIR AT HIGHLAND AND COLLEGE AVENUES

WHEREAS, the Niagara Falls Water Board ("Water Board") awarded the bid to repair a 16" concrete water main near the intersection of Highland and College Avenues to 4th Generation Construction Co. by way of Resolution No. 2023-09-001 for a total base bid of $85,900; and

WHEREAS, during the repair, the condition of the existing pavement and margin area required restoration in excess of the amounts in the bid, adding $11,938.10 to the project for pavement, curbing, and sidewalk restoration; and

WHEREAS, the water main repair also required removal and replacement of a structurally failing brick-and-mortar basin within the area of the excavation, adding $7,100 to the project costs to install a replacement basin and to replace the lateral connections to the basin; and

WHEREAS, the total cost of the extra work required to complete the concrete water main repair was $19,038.10**,** the City of Niagara Falls Engineering Department recommends that the contract with 4th Generation be amended to reflect these additional costs, bringing the contract total to $104,938.10;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board hereby accepts Change Order No. 1 to the contract awarded to 4th Generation Construction Co. for the 16" diameter prestressed concrete pressure pipe water main repair project near the corner of Highland and College Avenues, increasing the total amount authorized to be paid to 4th Generation by $19,038.10, to a contract total of $104,938.10.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
W-30, Water Infrastructure Projects-Miscellaneous
Capital Line Supplied by: D. Williamson

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By: Vote Witnessed By:

_____ _____

Nicholas J. Forster, Chairman Sean W. Costello, Secretary to Board

NIAGARA FALLS WATER BOARD

August 20, 2024

TO: Water Board Members

FROM: Sean Costello, Esq.
Acting Executive Director

SUBJECT: **CHANGE ORDER #1: $19,038.10**
16" DIA. PCCP WATER MAIN REPAIR PROJECT
HIGHLAND & COLLEGE AVENUE

A contract for the above referenced project was awarded to 4th Generation Construction Co. Inc. 5650 Simmons Ave. Niagara Falls NY on September 18, 2023, in the amount of $85,900.00.

During the repair process, the condition of the existing pavement and margin area required restoration in excess of the amounts originally included in the project's proposal. Costs associated with pavement, curbing and sidewalk restoration is $11,938.10. Additionally, to facilitate the water line repair, it was decided to remove and replace a structurally failing brick and mortar basin within the excavation. The complete basin installation costs, including lateral replacement is $7,100.00, bringing the complete costs for the extra contract amount of work to $19,038.10, and the contract total to $104,938.10.

It is the recommendation of the undersigned that you allow this contract to be amended to reflect the additional tasks and compensation necessary to complete the project, to the satisfaction of the Niagara Falls Water Board's counsel.

Respectfully submitted,

Sean Costello, Esq. Acting Executive Director

Robert Buzzelli, Civil Engineer III

Dean_____ Larkin _____ Kimble_____ Sirianni _____ Forster_____

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-012

ACCEPTING HAZEN AND SAWYER PROPOSAL
FOR LEAD SERVICE LATERAL ENGINEERING SERVICES

WHEREAS, the Niagara Falls Water Board ("Water Board") issued request for proposals ("RFP") 2024-04 for Lead Service Lateral Engineering Consulting Services; and

WHEREAS, the intent of RFP 2024-04 is to obtain the services of a qualified engineering consultant to assist the Water board with EPA Lead and Cooper Rule Revision ("LCRR") compliance, including completing the lead service lateral inventory ("LSLI") that the Water Board is preparing as well as with Lead Service Line Replacement Program ("LSLRP"), Sampling Monitoring Program, Public Notification/Education/Outreach, and other components of LCRR compliance; and

WHEREAS, one proposal was received, from Hazen and Sawyer, with a total proposed recommended authorized fee of $598,365 for all anticipated scopes of work relative to LCRR compliance assistance as well as assistance with anticipated additional requirements which will become mandatory on EPA's finalization of proposed Lead and Copper Rule Improvements ("LCRI") regulations, with all of Hazen and Sawyer's work to be performed on a time-and-material basis; and

WHEREAS, the NFWB has grant funding for its lead service line inventory related work under DWSRF Project No. 19405, the NFWB was awarded 2022 Bipartisan Infrastructure Law Lead Service Line Replacement funding through the Drinking Water State Revolving Fund, with a grant award up to $472,780, and the NFWB will use in-house labor to perform a portion of the required work and to offset its share of the project under the grant's terms and conditions if any;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board hereby authorizes the Executive Director to accept Hazen and Sawyer's August 30, 2024 proposal for Lead Service Lateral Engineering Consulting Services for a total fee not to exceed $598,365.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
Grant Funds from DWSRF Project No. 19405; additional funds to be paid from appropriate Consultants budget line in years incurred.

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By:

_____
Nicholas J. Forster, Chairman

Vote Witnessed By:

_____
Sean W. Costello, Secretary to Board

Hazen

Proposal for

Lead Service Lateral Engineering Consulting Services

RFP No. 2024-04 | August 30, 2024

Table of Contents

Section 1

Cover Letter

Hazen and Sawyer
1 Seneca Street, Suite 2875
Buffalo, NY 14203 • 716.316.5886

August 30, 2024

Douglas S. Williamson, PE
Director of Technical & Regulatory Services
Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, NY 14304

Re: Lead Service Lateral Engineering Consulting Services

Dear Mr. Williamson:

Hazen and Sawyer (Hazen) is pleased to submit our proposal to provide Professional Engineering services to support Niagara Falls Water Board (NFWB) with a compliance strategy for the Lead and Copper Rule Revisions (LCRR) and Lead and Copper Rule Improvements (LCRI) that follows national best practices developed by Hazen, and currently being implemented for your peer utilities in the Western New York region. Selecting Hazen as your partner for the management of this program offers several benefits:

National Experts in LCRR/LCRI Compliance—Our proposed Technical Advisors, Mark Lenz, PE and Roger Arnold, PE are experts in LCRR/LCRI compliance who are actively supporting the Town of Tonawanda, Erie County Water Authority, Buffalo Water, and others with a variety of water quality initiatives. Mark also serves as our Buffalo Operations Manager and will support our team's resource management with the broader Hazen national team.

Experienced Local Leadership and Support Team—Mark and Roger will be supported by several additional team members with expertise supporting the implementation of compliance programs. Dan Seider, PE, will serve as Hazen's Program Manager and ensure all project deliverables meet or exceed NFWB's quality and schedule expectations. The technical support team includes John Salvagno, PE, who is supporting the Town of Tonawanda, Village of Kenmore, and City of Lockport with various LCRR/LCRI program management duties; Victoria Nystrom, PE, who has served as LCRR/LCRI Deputy Program Manager for several large water systems in the region; and Rebecca Carmine-Shaw, PE, who has assisted Western New York utilities with funding strategies, including the completion of supporting documents.

Non-Proprietary Tools for Efficiency and Usability—With constant advances in tools and technology, Hazen utilizes off-the-shelf, non-proprietary software to the extent possible to maximize the usability and adaptability of our tools for our clients. We have developed a non-proprietary, predictive machine learning model that has been used to predict the presence of lead service lines (LSLs) with a high degree of accuracy for the City of Miami Beach and other clients. This tool is available to advance the LSL identification efforts completed by NFWB to date.

In summary, the Hazen team will provide you with the benefit of access to nationwide LCRR experts; continuity with recent, relevant experience; and a strong local presence. If you have any questions or require additional information concerning our proposal, please feel free to contact me at 716.807.7064 or by email at dseider@hazenandsawyer.com. We look forward to supporting NFWB on this important compliance program.

Sincerely,

Daniel J. Seider

Dan Seider, PE
Associate Vice President

Section 2

Firm Overview and Qualifications

Section No. 2

Firm Overview and Qualifications

Hazen develops practical solutions to drinking water treatment challenges throughout the United States. Backed by one of the industry's most comprehensive and advanced applied research portfolios, our engineering and scientific teams work exclusively with water, wastewater, and stormwater.

Hazen is a nationally recognized engineering firm delivering industry-leading technical expertise and best-value solutions for our clients. Dedicated solely to water, wastewater, and stormwater infrastructure for more than 70 years, Hazen is home to some of the world's most knowledgeable and experienced environmental engineers, scientists, and construction professionals. Our expert process groups contribute to the latest research and determine how to apply the most effective and efficient technologies to meet design challenges. Hazen provides the experience and insight to help utilities, public agencies, and industrial organizations exceed their goals through high-value, innovative solutions.

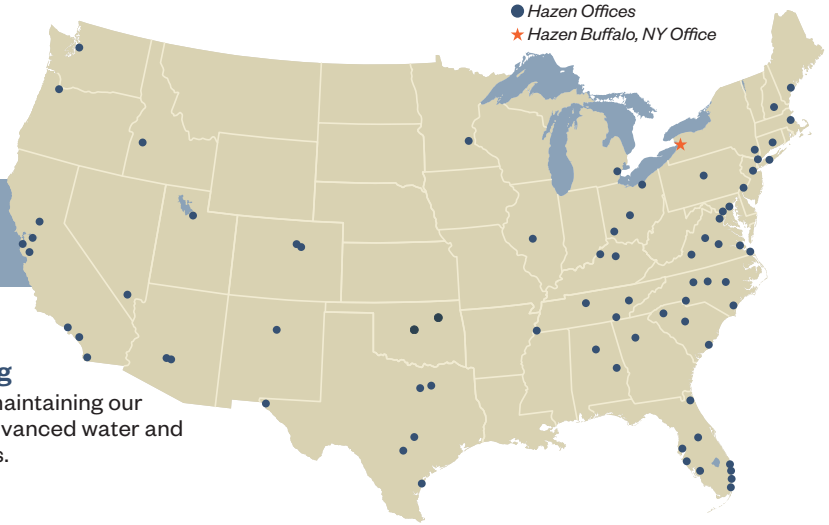
Founded in 1951, Hazen employs more than 1,800 staff in 74 offices across North America. Our culture of entrepreneurship and collaboration enables us to excel at complex assignments by mobilizing the right resources for each engineering challenge at hand, regardless of location. Our decades-long client relationships are a testament to our company's commitment to putting our clients' interests first. The following pages provide an overview of Hazen's qualifications to perform LCRR/LCRI program management services.

Hazen has actively supported the Western NY water community with similar LCR/LCRR/LCRI compliance services for more than 5 years including: Erie County Water Authority, Buffalo Water, the Town of Tonawanda, the Village of Kenmore, the City of Lockport, and the City of North Tonawanda. Our 12 staff, including eight professional engineers, have an office at Seneca One and are continuing to grow and expand with more staff and additional local assignments.

Since 1951

Hazen and Sawyer has been focused on **all aspects of water.**

We have grown to
1,800+ staff members



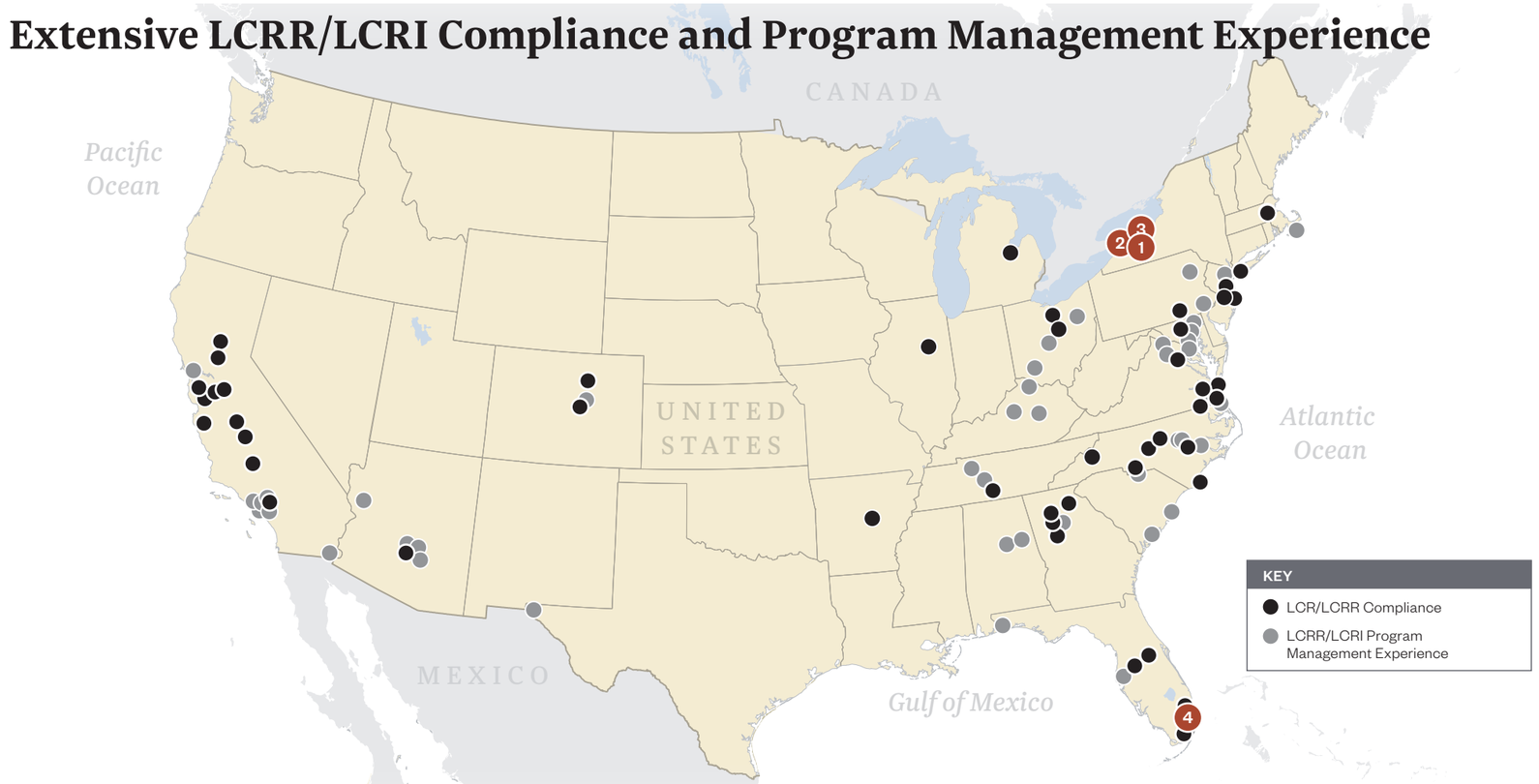
A Top ENR Firm

in Water Engineering

Hazen is committed to maintaining our position as a leader in advanced water and wastewater technologies.

1020-021

Extensive LCRR/LCRI Compliance and Program Management Experience



Project Highlights

1

Corrosion Pilot Loop Study
Erie County, NY

BENEFIT:

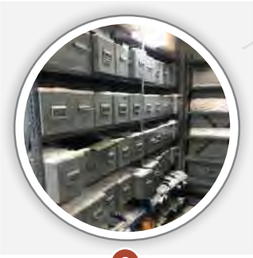
- Directly relevant experience with LCRR Compliance for neighboring water system
- Understanding of sampling requirements
- Understanding of public outreach

2

Corrosion Public Outreach,
Buffalo, NY

BENEFIT:

- Proven outreach strategy for a nearby utility
- Understanding of local partners and communication avenues to provide a comprehensive outreach and education program



3

LCRR/LCRI Program Assistance
Town of Tonawanda, NY

BENEFIT:

- Comprehensive compliance support
- Digitization of more than 60,000 plumbing records
- Updates to Enterprise GIS and Sampling Programs
- Experience working with Town staff to develop GIS and Lucity applications

4

LCRR Predictive Model
Miami Beach, FL

BENEFIT:

- Non-proprietary model specifically developed to support identification of LSLs
- Machine learning prioritization of service line sites for identification and replacement

***Appendix A** provides a full list of reference project descriptions, led by the Hazen staff included on our proposed project team, to provide NFWB with continuity in best practices, local responsiveness, and comprehensive technical knowledge.*

Team Spotlight

PROJECT DELIVERY LEADERSHIP

Program Manager
Dan Seider, PE

Project Manager
John Salvagno, PE, CDT

Dan Seider and John Salvagno will lead Hazen's local project delivery. They will leverage their similar LCRR/LCRI experience for your peers and ensure national best practices are incorporated into project deliverables that meet or exceed compliance timeframes.

TECHNICAL ADVISORS

Technical Advisor
Mark Lenz, PE

Technical Advisor
Roger Arnold, PE

Mark Lenz and Roger Arnold will provide oversight of project deliverables and ensure that the Hazen project team's approach and deliverables align with industry best practices.

ADDITIONAL COMPLIANCE AND FUNDING SUPPORT

Sampling Lead
Victoria Nystrom, PE

Funding
Rebecca Carmine-Shaw, PE

Victoria Nystrom and Rebecca Carmine-Shaw will lead several of the supporting tasks for this assignment, leveraging their experience supporting LCRR/LCRI programs and resubmission to the Bipartisan Infrastructure Law.

1020-021

Project Experience Matrix

The matrix below highlight's Hazen's national expertise delivering LCRR/LCRI programs for peer utilities. The page following this matrix provides a roadmap of our deep understanding of the requirements for compliance.

Relevant Projects

LCRR Projects	System Pop. Size	LCR Compliance	LSL Inventory	LSL Identification	LSL Replacement Plan	Sampling and Monitoring	Public Education and Outreach	Implementation Assistance	Multi-Year Program	Geospatial LSL Likelihood Analysis Modeling	GIS and Program Tracking Dashboard	Regulatory Coordination	Funding Support
Town of Tonawanda, NY	**88,000**	■	■	■	■	■	■	■		■	■	■	■
Erie County Water Authority, NY	**>500,000**	■				■							
City of Lockport, NY	**21,000**	■	■	■	■	■	■	■					■
Village of Kenmore, NY	**15,000**	■	■	■	■	■	■	■				■	
City of North Tonawanda, NY	**30,000**	■	■	■	■	■	■	■	■			■	■
Miami-Dade Water and Sewer Department, FL	**2,300,000**	■	■	■	■	■	■	■	■	■	■	■	
WSSC Water, MD	**1,800,000**	■	■	■	■		■					■	
City of Chesapeake, VA	**200,000**	■	■	■	■			■	■	■	■	■	■
City of Richmond	**230,000**	■	■	■	■	■	■	■	■			■	
City of Tempe, AZ	**185,000**	■	■	■	■	■	■	■	■	■	■	■	■
City of Miami Beach, FL	**90,000**	■	■	■	■	■	■	■	■	■	■		■
City of Gainesville, GA	**159,000**	■	■	■		■	■	■		■	■	■	
Clayton County, GA	275,000	■	■	■		■	■	■		■	■	■	
City of Buffalo, NY	276,000	■				■	■	■	■			■	
Cobb County-Marietta Water Authority, GA	950,000	■				■	■	■				■	
City of Norfolk, VA	400,000	■	■		■			■				■	■
Virginia Beach, VA	450,000	■	■	■				■	■	■	■	■	
Spotsylvania County, VA	230,000	■	■	■				■		■	■		
City of Winchester, VA	30,000	■	■	■	■					■	■	■	
NYCDEP Corrosion Control Evaluation, NY	9,500,000	■				■		■	■			■	
Rowan County, NC	140,000					■	■	■				■	
Cape Fear Public Utility Authority, NC	190,000	■					■	■	■			■	
Charlotte Water, NC	818,000	■						■				■	
City of Greensboro, NC	290,000	■				■		■				■	
Johnston County, NC	160,000	■				■		■				■	
City of Atlanta, GA	1,200,000	■				■		■				■	
City of Fort Lauderdale, FL	220,000	■				■		■				■	

1020-021

Current Regulatory Requirements of the Lead and Copper Rule Revisions/Improvements

The Hazen team is well positioned to support the Niagara Falls Water Board with LCRR/LCRI Program Management services through our comprehensive understanding of LCRR / LCRI. This regulatory and institutional knowledge will set a strong foundation for compliance:

Priority for LCRR Compliance on October 16, 2024:

- Initial Inventory
- 30-day customer SL material notifications
- 24-hr tier 1 notification
- Public Outreach and Education

Service Line Inventory

SL Inventory Materials Classification

- *Non-lead*
- *Lead*
- *Galvanized Requiring Replacement*
- *Lead Status Unknown*

Requires systems with lead or unknown service lines to develop a publicly-available service line inventory. Inventories must:

- Start with EPA-required record review
- **Submit to the State by:**
  - **LCRR Initial Inventory - Oct. 16, 2024**
  - **LCRI Baseline Inventory - Expected Oct. 2027**
- Be made available online for systems serving > 50,000
- Be updated annually, unless only non-lead remain

Service Line Identification

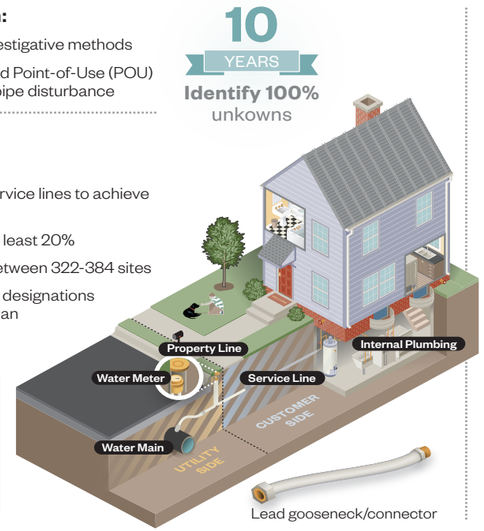
Service Line Identification:

- States determine acceptable investigative methods
- Distribute flushing instructions and Point-of-Use (POU) filters after excavations or other pipe disturbance

Inventory Validation for Non-Lead Service Lines:

- Validate a subset of Non-Lead service lines to achieve a 95% confidence level:
  - ≤1,500 Non-lead Sites: Verify at least 20%
  - >1,500 Non-lead Sites: Verify between 322-384 sites
- Requirement applies to Non-lead designations made based on methods other than records review or 2-point field verification.

Validation must be completed and submitted to the State 3 years prior to the LCRI replacement deadline.



Service Line Replacement (SLR)

Replace 100% of lead service lines (LSLs) and galvanized requiring replacement (GRR) in 10 years.

- Required for all system regardless of lead levels
- 10% minimum annual replacement rate calculated on a rolling 3-year period.
- Replacement Pool = LSLs + GRR + Unknowns

SLR Plan

- Make publicly accessible by LCRI compliance deadline
- Make available online for systems serving > 50,000
- Identify any laws or water tariff agreements that may affect system's ability to gain access for full SLR.

Plan components need to include:

- *Strategy for identifying unknown service lines*
- *Procedures for full SLR*
- *Strategy for customer notifications*
- *Flushing procedures and POU filter distribution*
- *Funding strategy for SLRs*

Post-SLR Mitigation

Offer Follow-Up Sampling

Provide Point-of-Use Filters and 6 Months of Replacement Cartridges

Corrosion Control Treatment (CCT)

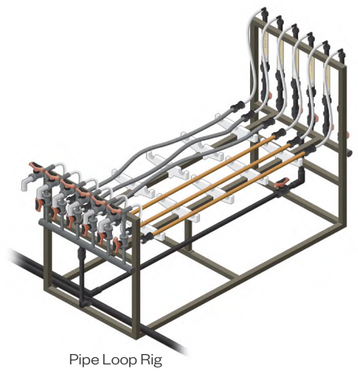
New CCT Requirements

- Requires implementation of CCT, re-optimization, or can defer CCT following a lead action level exceedance
- CCT study requires the use of pipe loops for systems with LSLs

Optional Deferred CCT Optimization

- Replace 100% of LSLs and GRR within 5 years at a minimum rate of 20% per year
- Continue to operate existing CCT and meet public education/notification requirements.

System will be required to meet CCT requirements following AL exceedance even after all LSLs and GRR are replaced.



Pipe Loop Rig

Public Education (P.E.) and Outreach

Service-Line Related Outreach

- Annual notice for sites with LSLs, GRR, and Unknowns
- Outreach required during service line identification work
  - Notice of work
  - Distribute filters and flushing instructions
- P.E. required for water systems that fail to meet replacement rate.

Notification of Tap Sampling Results

- Notify customers within 3 calendar days of receiving results regardless of lead and copper levels. Must include:
  - Revised lead health effects language
  - Steps consumers can take to protect themselves
  - Utility contact information
- Following an AL exceedance systems must notify all customers within 24 hours and offer customer requested sampling.

Multiple AL Exceedances (3 within 5 yrs):

- *Public education campaign*
- *Distribution POU filters to all residents*

Sampling

A variety of changes impact method and locations of tap monitoring

Establishes a lower lead action level of 10 ppb.

90th Percentile	Required Actions
10 ppb	**Tap Sampling:** Standard monitoring every 6 months **CCT:** Implement, re-optimize, or deferred
>5-10 ppb	**Tap Sampling:** Standard monitoring every year **CCT:** Maintain treatment and WQPs
0-5 ppb	**Tap Sampling:** Reduced monitoring every 3 years **CCT:** Maintain treatment and WQPs

ACTION 10ppb LEVEL

Additional Sampling:

- "Distribution System and Site Assessment" for samples greater than 10 ppb
- Sampling of schools and childcare facilities

New Tier Sample Site Selection Requirements:

Tier 1 and 2: Sampling at homes with lead service lines or lead premise plumbing.

Tier 3, 4, and 5: Sampling at homes with galvanized preceded by LSLs or connectors, homes with copper and leaded solder, or representatives sites.

1020-021

Section 3

Project Team

Section No. 3

Project Team

The Hazen team, as shown in an organizational chart below, will bring their relevant experience, LCRR compliance expertise, and local presence to ensure successful development and implementation of a multi-year program to remove lead service lines from NFWB's service area.

1020-021

Section 4

Situational Understanding and Technical Approach

Section No. 4

Situational Understanding and Technical Approach

Hazen understands that NFWB is seeking qualified engineering consulting support to assist with the US EPA's Lead and Copper Rule Revisions (LCRR) and proposed Lead and Copper Rule Improvements (LCRI). This initial effort will include the planning, engineering evaluations, and regulatory coordination necessary for compliance with the service line inventory (SLI), lead service line replacement (LSLR), and sequential sampling compliance requirements as set forth in these regulations supported by community outreach, public notification, and relevant software tools. To strengthen NFWB's compliance, Hazen will deliver the following scope of services aligning with the tasks listed in the RFP:

Task 1: Service Line Inventory (SLI)

Hazen will work with NFWB to leverage the available records and completed field verifications at the water meter to expand the existing SLI in the time available prior to the initial October 16, 2024 submission, and in future iterations through the end of the 2025 calendar year. The SLI will serve to inform replacement efforts and establish the publicly available inventory. Hazen will ensure that NFWB submits a compliant SLI to the New York State Department of Health (NYSDOH) that reflects the total number of known non-lead, lead, galvanized requiring replacement, and unknown service lines following the required template format. Beyond October 16, 2024 Hazen will work with NFWB to incorporate service line connector material into the Baseline Inventory as outlined in the proposed LCRI.

As requested, Hazen will work with key NFWB staff to establish a systematic, cost-effective approach for identifying service line materials within the water system. The outcome of this exercise will then be used to inform a Standard Operating Procedure (SOP) for service line material verification that will leverage NFWB's staff and enterprise GIS. Additional GIS support will include the development of the public facing SLI that displays information on the material of both the public and private sides of the service lateral with additional information that may need to be made available for public access in the future. Hazen will conduct up to two (2) workshops on recommendations to incorporate these GIS tools into your ongoing asset management practices and workflows. Hazen and NFWB staff will collaboratively manage and maintain data collection and public facing SLI GIS applications through December 31, 2025 or longer, pending additional authorization by NFWB.

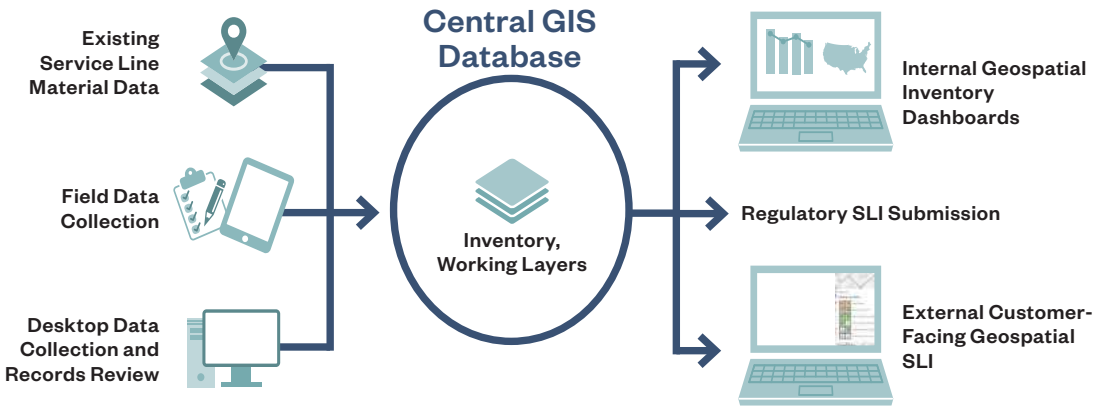
The most time-sensitive activity under this task is for NFWB to prepare for compliant customer notification to properties containing an unknown, lead, or galvanized requiring replacement service line within 30 days of the October 16th, 2024 SLI compliance deadline. Hazen will develop those required notifications consistent with US EPA guidance for distribution by NFWB; Hazen will support NFWB with a cost-effective and compliant strategy for the proper distribution of these notices.

To develop NFWB's SLI and reduce unknowns, a combination of methods are likely required. A plan for applicable service line verification strategies will be documented and provided to NFWB with a focus on utilizing available, in-house NFWB resources to the extent practical. Typical industry verification methods are summarized in the table on the following page.

1020-021

Service Line Verification Method Type	Service Line Side	Relevance for NFWB	Cost
Operator / Customer Survey	Customer-side	Effective method with sufficient public outreach. Leverages NFWB meter technicians and dedicated staff member, and can reduce excavation on private property.	$
Statistical Analysis	Utility and/or Customer-side	Relies on statistics and system uniformity to interpolate or extrapolate service line materials within a given geographic area. . This is an approach that peer utilities in WNY are exploring with local and State DOH.	$
Water Sampling for Lead	Utility and/or Customer-side	Requires establishing a community-specific threshold to indicate possible presence of an LSL: Invasive to homeowner and requires health department approval. Would leverage NFWB laboratory and sampling capabilities.	$$
Predictive Models	Utility and/or Customer-side	Predictive methods can be used to target field inspections and replacements, but requires at least 20% known service line materials to be accurate.	$$
Field/Visual Inspection	Utility and/or Customer-side	Field inspections completed by potholing can be costly and invasive. Other methods can be used initially to minimize need for field investigation; however, at the appropriate time NFWB hydro excavation and vacuum trucks/ crews can complete this work.	$$$

Service Line Inventory Development



This task will also include development of a work plan for validation of non-lead service lines to achieve a 95% confidence level. The primary goals described in this work plan is to reduce the number of unknown service lines in NFWB's system through an iterative effort of predictive modeling and representative field verifications. The total cost of developing and implementing this predictive model will be stated in the work plan for NFWB's consideration. This work would be completed in 2025 and used to update the SLI prior to 2025 re-submission of the inventory to NYSDOH.

1020-021

If authorized by NFWB following work plan development, the predictive modeling will assess the likelihood of lead and galvanized requiring replacement (GRR) for utility and customer side service locations. Hazen's approach to predictive modeling will consist of five main steps:

- Data cleaning
- Exploratory data analysis (EDA)
- Feature engineering and variable selection
- Model training
- Model testing.

One model will be created to predict the service line material of the customer-owned portion of the service line with potential to build a second model with the same approach for the utility-owned portion. The model will be developed using NFWB's existing data as well as additional field verification data collected for statistical analysis.

Task 1: Deliverables

- Support finalization of NFWB's SLI and submission to NYSDOH
- Development and maintenance of (1) a GIS data collection and (2) Public Facing SLI web applications with maintenance through December 31, 2025
- Develop plan for field verification efforts using approved methodologies
- Customer outreach materials to support communication with residents
- Work plan for completing of a non-lead verification predictive model with 95% confidence interval and two (2) workshops with health regulators
- Recommendations and protocol development for distribution of required customer notifications within 30 days of SLI submission to NYSDOH

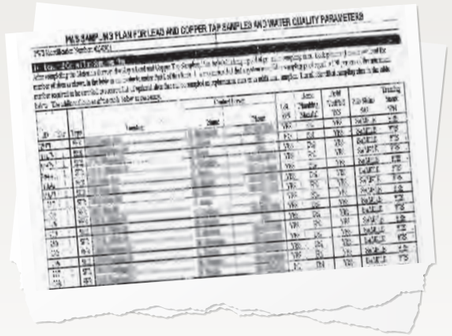
Predicting Lead Service Lines

Miami Beach Machine Learning Approach & Experience

RETRAINING MODELS WITH NEW DATA

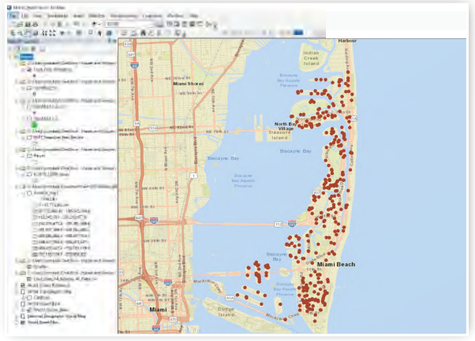
DATA COLLECTION → **MODEL DEVELOPMENT** → **RESULTS** → **DELIVERABLES**

Collect a LSL Dataset



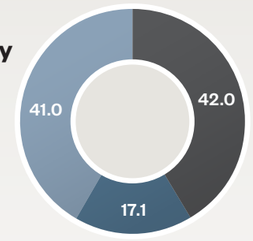
Collect Additional Datasets

(i.e., parcel, water network, water sample and census data, etc.)



Clean Data and Conduct Exploratory Data Analysis

Lead Galvanized Other



Why Use Machine Learning?

Traditional modeling requires known rules and inputs to identify lead service lines. Machine Learning (ML), on the other hand, uses data to learn the rules that allow it to deliver the probability of each uninspected service line of being lead/galvanized. ML results are also able to show which parameters were significant in prediction and can be calibrated continuously by inputting new inspection data.

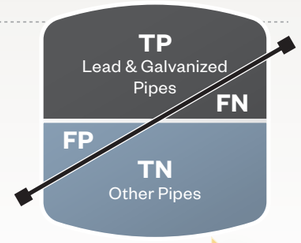
Develop Machine Learning Model

Identify Significant Parameters

- Lead, Galvanized, & Other
- Home Age
- Land Value
- Census Block Info
- Lot Size
- No. of Floors
- PA Primary Use
- Water Main Material
- Percentage Minority
- Population Density
- Taxable Value

Evaluate Model Accuracy and Retrain

TP - True Positive
TN - True Negative
FP - False Positive
FN - False Negative



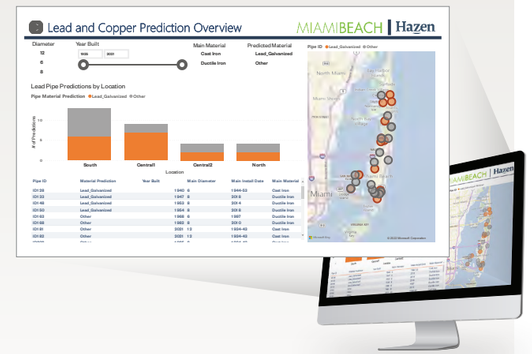
Which Accuracy Metric Do I Use?

We use Accuracy and Recall as two main accuracy metrics.

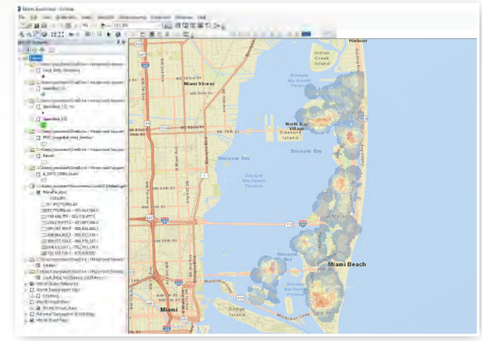
Accuracy *= (True Positive + True Negative)/Total*
Recall *= True Positive/(True Positive + False Negative)*

Recall is an important metric to use if the cost of a False Negative (pipes we predict to be other material but are actually lead/galvanized) **is high, which is our case.**

Create Prioritization Dashboard and Report



Prioritized LSL Replacement Area



1020-021

Task 2: Develop a Lead Service Line Lateral Replacement Program

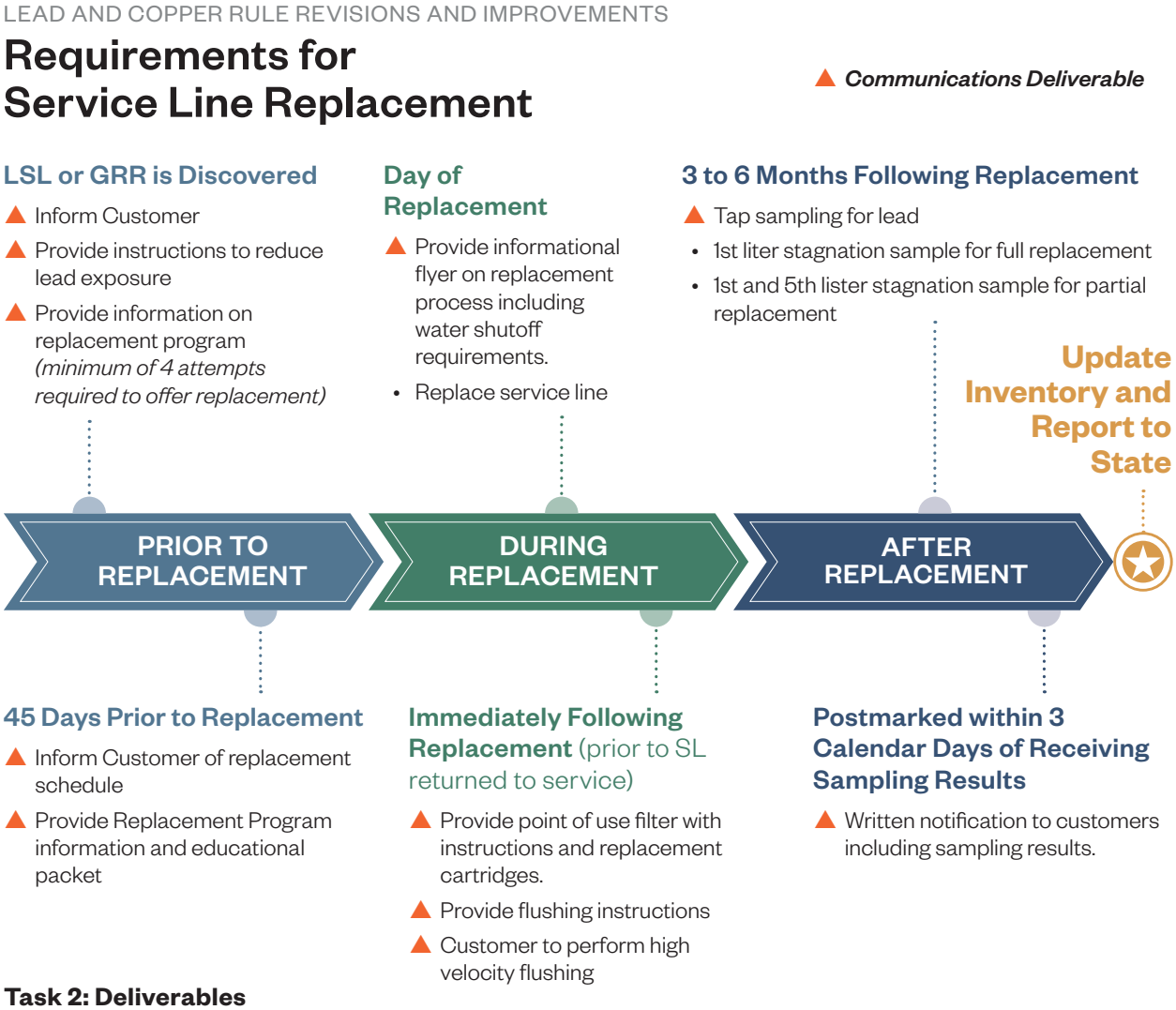
The EPA requires LSL Replacement Plans for utilities that have LSLs, GRRs, or lead status unknown service lines at the anticipated Lead and Copper Rule Improvements (LCRI) compliance date of October 2027. In the event of LSL or GRR findings, an LSL Replacement Plan provides a structure for efficiently verifying and replacing pipes requiring replacement. It is essential to develop a working plan that can be easily adjusted as new information and elements are determined. Our approach is to continually build on what NFWB has already done to-date on this effort and move those efforts forward to meet the regulatory demands of the LCRR and anticipated LCRI.

Hazen has successfully obtained regulator buy-in on these replacement plans for states that have stringent requirements. The following is a draft plan outline used for another utility. In this case, we drew upon the institutional knowledge of utility staff to complete some sections of the plan and ensure that the replacement process and procedures aligned with long-term utility goals. This outline provides a starting point for this project.

Example Table of Contents

Using an integrated approach and working in partnership with NFWB, Hazen will develop a customized LSL replacement plan that covers all aspects of the LCRR and draft LCRI. Enough detail will be provided in the body of the plan and auxiliary information, like Standard Operating Procedures, will be included in any appendices. The team will look for opportunities to integrate LSL replacements with planned capital improvement projects, and will employ proven prioritization strategies that target LSL replacements in the most disadvantaged neighborhoods and sensitive populations.

The goal is to provide a comprehensive plan, but in a format that can be updated as new information, techniques, budgets, regulations, etc. becomes available. The graphic below illustrates required customer communications as part of the Service Line Replacement Plan.



Task 2: Deliverables

- Lead Service Line Replacement Plan, including recommended replacement rates and CIP planning including cost estimates
- Up to six (6) meetings with health regulators to respond to LSL replacement questions
- Public education and notification materials to support LSL replacement system-wide
- GIS-compatible tracking of LSL replacements, including dashboard summaries and relevant metrics agreed upon by NFWB and Hazen
- Resubmission to the Bipartisan Infrastructure Law program for funding assistance
- Additional recommendations for potential outside funding sources (i.e., Water Infrastructure Improvement Act (WIIA))
- Resident Communication Standard Operating Procedure (SOP) document
- Pitcher filter distribution Standard Operation Procedure (SOP) document

1020-021

Task 3: Sampling Monitoring Plan

The LCRR includes new tier criteria for tap sample site selection and new procedures for compliance sample collection. NFWB will be responsible for increased sampling locations, frequency, and at an additional fifth liter to comply with the LCRR/LCRI.

Approach

A Sampling Plan will be developed to identify sample sites (including lead and copper compliance, schools, and childcare facilities) and establish SOPs for sample collection and tracking, data storage and reporting, and public notification.

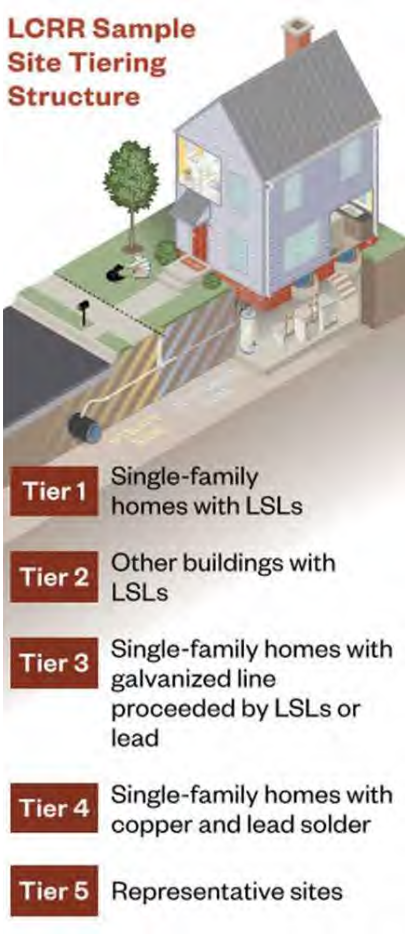
The service line inventory (SLI) will serve as the primary data source for the Sampling Plan. It will include necessary data fields for determining site tier designations such as service line material, building type, and the presence of a lead gooseneck or connector. By using a centralized GIS solution to host the inventory, identification of sample sites can be expedited using a script that reads from the database to generate sample sites for NFWB. Building upon service line material findings, Hazen will develop a prioritized dataset of eligible LCR tap sampling sites, including customer contact information for sampling-related outreach. Tracking customer contact information will streamline customer outreach efforts by communities related to compliance sampling. Additionally, Hazen will develop an updated tap sampling standard operating procedure (SOP) to guide sampling efforts.

Hazen's Scope of Work for this task includes the following:

- Task 3.1: Sample Site Identification
- Task 3.2: Sample Collection Procedures
- Task 3.3: School and Childcare Facility Sampling
- Task 3.4: Corrosion Control Treatment Evaluation and Recommendations

Task 3.1: Sample Site Identification

The LCRR tier criteria will focus on sampling sites with LSLs and galvanized iron service lines. Using results from the SLI, Hazen will provide recommendations for revising each community's LCR compliance sites to reflect the new LCRR tiered structure (shown right). Our proposed sample site identification process is illustrated in on the next page.

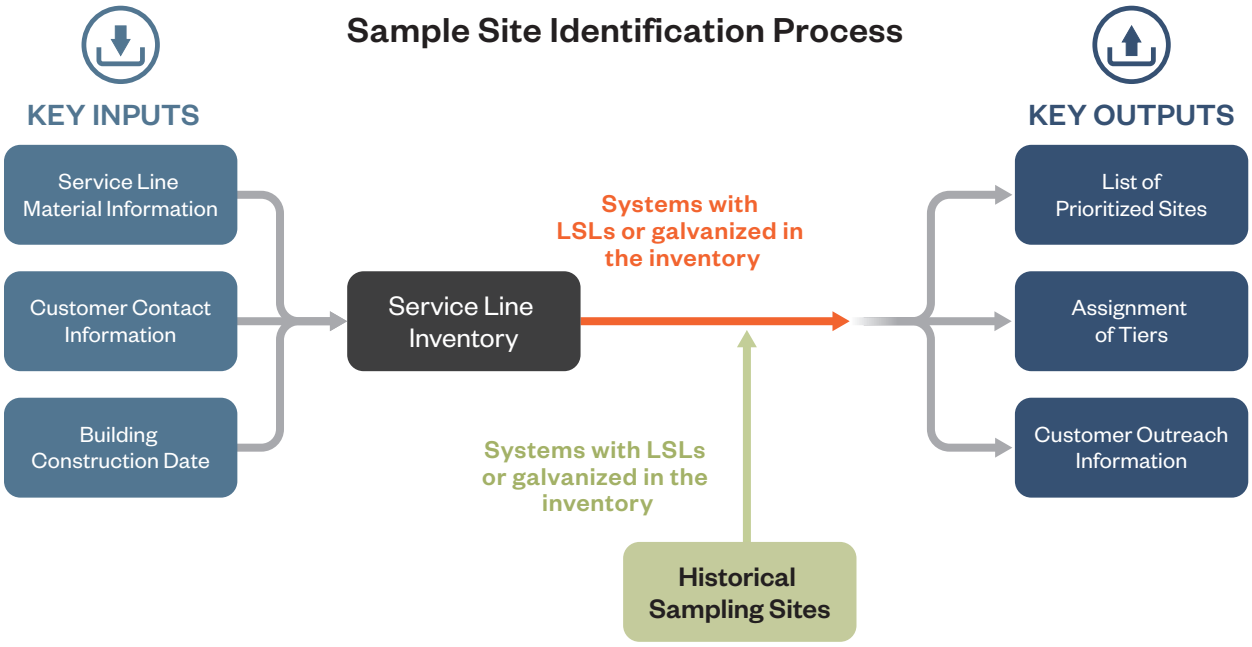


LCRR Compliance Site Selection Tiering Structure

1020-021

Hazen will provide the following services:

- Evaluate existing LCR sample site list and prioritize historical sampling sites that meet updated tier criteria for sampling.
- Establish targets for the number of prioritized sampling sites in each system to provide contingent sites.
- Build upon the SLI; identify a prioritized list of sampling sites meeting requirements for Tier 1-3 sites.
- Identify sampling sites as needed from historical sampling sites that are expected to meet Tier 4 or Tier 5 criteria when insufficient Tier 1-3 sites are available from the SLI.

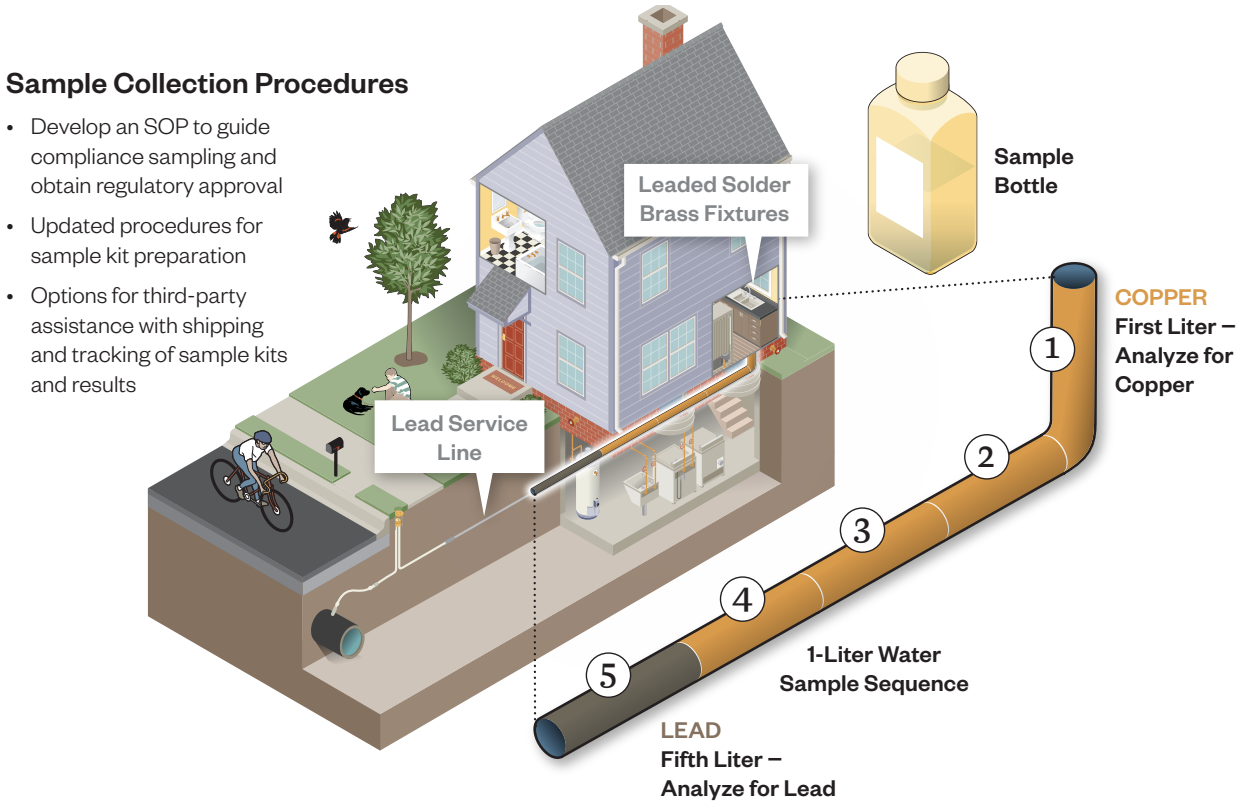


Task 3.2: Sample Collection Procedures

The LCRR introduces several changes to comliance sampling procedures, including requirements for fifth-liter sampling at sites with LSLs. Hazen will prepare an LCRR tap sampling SOP to guide compliance sampling and account for first and fifth-liter sample collection per LCRR requirements.

The figure on the following page illustrates the fifth-liter sampling approach intended to draw water directly from the LSL.

1020-021



LCRR Compliance Sample Collection Procedures.

Hazen will provide the following services:

- Prepare a tap sampling SOP document that defines the procedures for customer outreach, laboratory coordination, sample collection, customer notification, and regulatory reporting. The SOP will cover fifth-liter sampling for sites with LSLs and first-draw sampling for other sites. The SOP will include procedures for sample kit preparation and distribution. It is anticipated that one SOP will be prepared to cover all systems.
- Prepare customer sampling instructions meeting LCRR requirements. It is anticipated that the instructions will contain fields for customer data collection to provide quality assurance for customer-collected samples.
- Hold a workshop to review the draft tap sampling SOP.

Task 3.3: Sampling of Schools and Childcare Facilities

The LCR Revisions introduce new requirements for sampling in schools and childcare facilities. Systems will be required to collect samples from at least 20% of primary schools and childcare facilities per year during the first five years (starting in 2027) and will be required to collect samples upon request. Systems will be required to conduct outreach to schools and childcare facilities about the sampling program and notify stakeholders of the results. Sampling requirements for schools and childcare facilities are shown in the illustration on the next page.

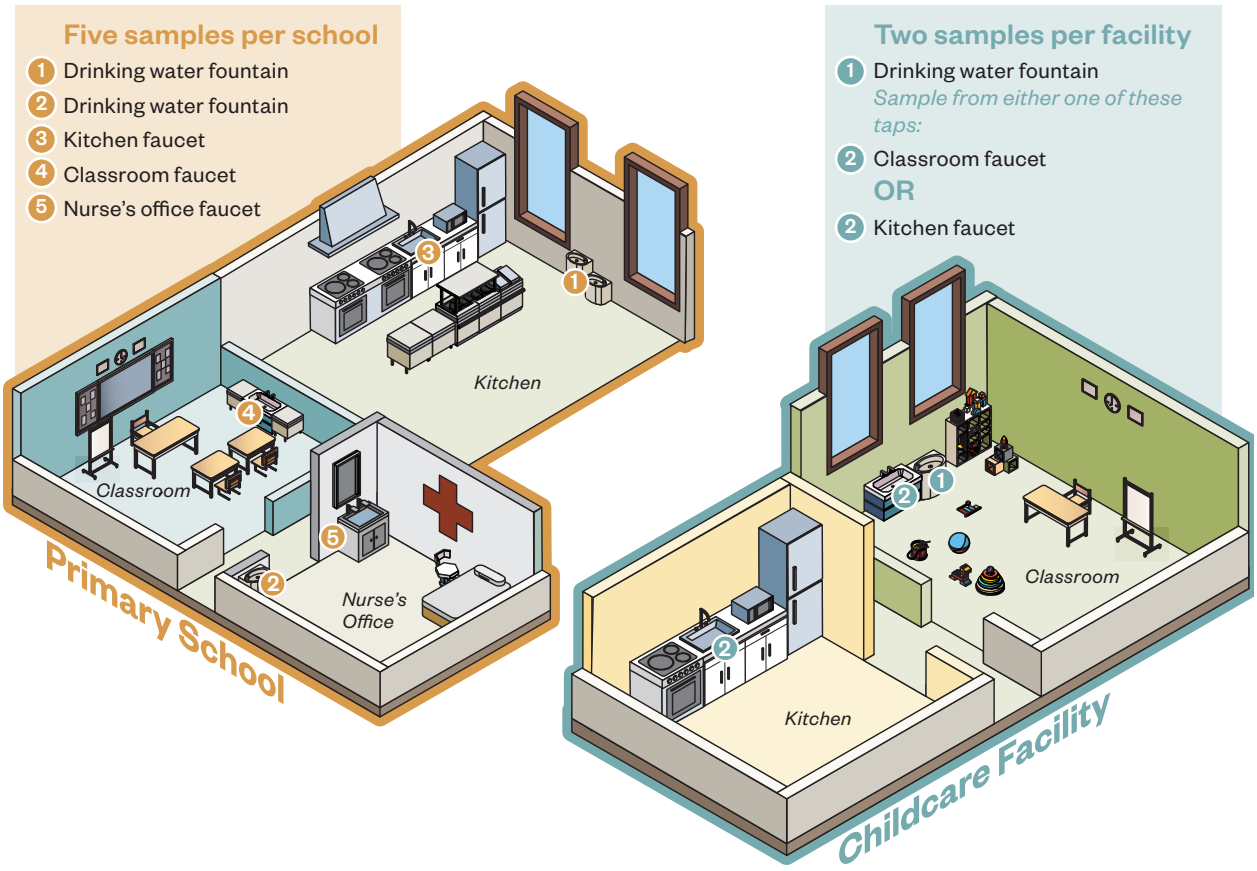
Schools and childcare facilities are considered as a type of Non-Transient/Non-Community water systems. The LCRR will necessitate regular communications with schools and childcare facilities in NFWB water systems. Hazen will develop a sampling SOP to guide sampling and communication efforts.

Lead Sampling Instructions - LCRR for Schools and Childcare Facilities

Each sample for lead shall be a **first draw sample 250 ml in volume**

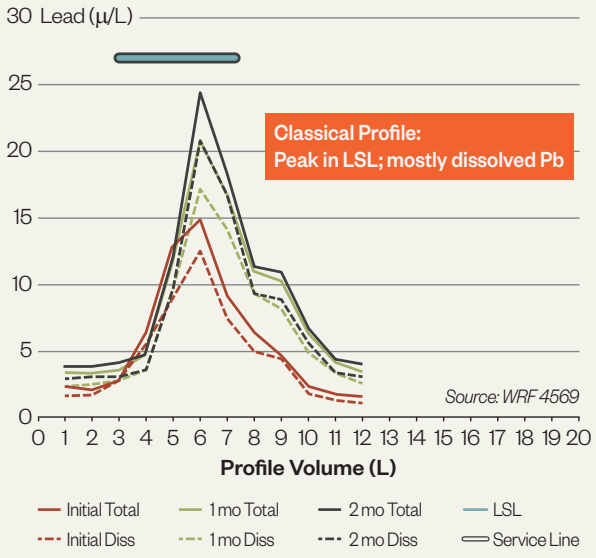
The water must have remained stationary in the plumbing system of the sampling site (entire building) for **at least 8 but no more than 18 hours**

Samples must be **analyzed using acidification** and the corresponding analytical methods in 40CFR 141.89



There is potential for lead levels to increase under the new tap sampling requirements per the LCRR and draft LCRI. The figure on the right shows a typical profile of lead levels at a home served by lead service lines; lead levels peak between the 5th and 7th liter. As part of this task, Hazen will develop sequential sampling procedures for NFWB to utilize at homes served by an LSL or GRR.

Sequential sampling results will help NFWB and their customers to better prepare for the revised sampling procedures, but also provide insight into where in-home lead levels peak (if at all). Data will help inform CCT recommendations and optimized strategy as part of Task 3.4.



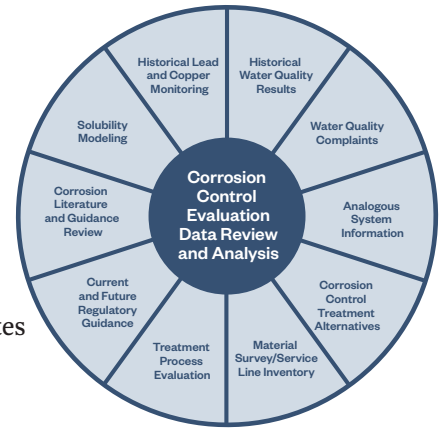
1020-021

Task 3.4: Corrosion Control Treatment Evaluation and Recommendations

We understand that NFWB currently feeds a proprietary corrosion inhibitor and has reported lead 90th percentile concentrations between 8 ppb and 13 ppb since the 2001 sampling round. Hazen will review all historical reports completed in the past to optimize corrosion control treatment (OCCT), including the historical dosage and product specifications of the applied corrosion inhibitor, distribution system water quality and raw and finished WTP data.

More recently, EPA and state regulators have focused on a more rigorous and consistent OCCT being applied to overall distribution systems. Given the proposed lead Action Level of 10 ppb and historical 90th percentile lead concentrations of NFWB, it is possible that future sampling results will result in a Tier 1 Action Level exceedance. Our OCCT evaluation will focus on informing actions which NFWB can take to reduce the risk of a Tier 1 Action Level exceedance prior to your next sampling round (anticipated to be 2026), including:

- **Institutional Knowledge and Experience:** Our team will meet with key staff to gain valuable institutional knowledge and ensure that recommended corrosion control strategies address any historical challenges and align with the long-term treatment goals.
- **Historical Data Analysis:** Our data analysis will start with a fresh look and review of historical corrosion control treatment strategies in comparison with a comprehensive analysis of raw, treated, and distribution water quality, as well as historical lead and copper levels. Corrosion Indices and Modeling: Using a range of historical data, common corrosion indices (such as langelier saturation index (LSI), aggressivity index (AI), calcium carbonate precipitation potential (CCPP), and chloride to sulfate mass ratio (CSMR)) will be calculated to determine the relative corrosivity of historical water quality conditions.
- **Geospatial Analysis:** Lead and copper levels, as well as key distribution water quality parameters, will be analyzed geospatially to determine if there are any particular areas of concern within the service area. Service line material designations from NFWB's inventory will also be overlaid geospatially to determine if known service line materials can be correlated with historical water quality or lead and copper levels.
- **Optimal Corrosion Control Treatment Recommendations:** From this evaluation, Hazen will recommend next steps for completing corrosion control treatment bench-or pilot-scale studies with the goals of reducing lead exposure and optimizing recurring chemical costs and operations and maintenance.



Task 3: Deliverables

- Prioritized sample site list
- Sample site identification process results meeting agenda and minutes
- Tap Sampling SOP
- Customer sampling request letter and sampling instructions
- Tap Sampling SOP Workshop agenda and minutes
- List of schools and childcare facilities for future LCRR/LCRI sampling
- School and Childcare Facility Sampling SOP. The SOP will define the outreach process, laboratory coordination, sample collection protocol, reporting procedures, and tracking of additional sampling requests.

1020-021

Section 5

Project Schedule

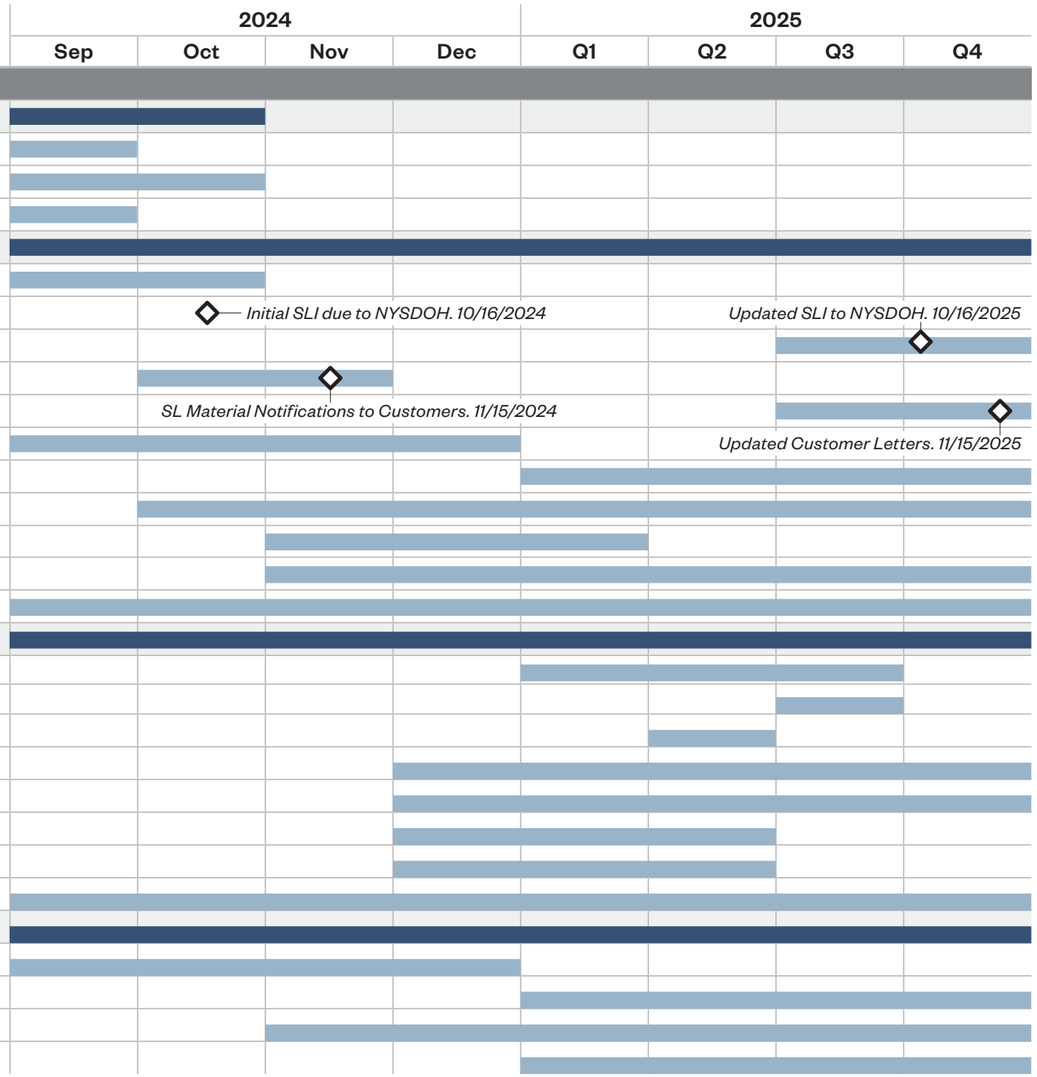
Section No. 5

Project Schedule

NIAGARA FALLS WATER BOARD – LEAD SERVICE LATERAL ENGINEERING CONSULTING SERVICES

Hazen looks forward to supporting the NFWB's LCRR/LCRI compliance through collaborative workshops, transparent communication and industry leading analyses and project deliverables. Hazen is prepared to start immediately after receipt of a Notice to Proceed which we assume could be provided as early as the NFWB's September 16th Work Session. It is important that Hazen and NFWB begin to work on database access and knowledge transfer as soon as possible in order to submit an Initial Service Line Inventory meeting NYSDOH requirements prior to the EPA's 10/16/2024 deadline.

Task No.	Task Description	Start	End
Lead Service Lateral Engineering Consulting Services			
0	**Project Award, Contract Signing and Kickoff Meeting**	**9/16/2024**	**10/21/2024**
0.1	Project Award	9/16/2024	9/16/2024
0.2	Contract Execution	9/16/2024	10/21/2024
0.3	Project Kickoff Meeting & Existing Information Collaboration & Database Access	9/17/2024	9/17/2024
1	**Service Line Inventory Improvements**	**9/17/2024**	**12/31/2025**
1.1	Incorporate Records Review into NYSDOH Service Line Inventory Template	9/17/2024	10/14/2024
1.2	Submit Initial Service Line Inventory to NYSDOH	10/16/2024	10/16/2024
1.2a	Submit Updated Service Line Inventory with to NYSDOH		
1.3	Develop content, solicit vendor & send Public Notifications to Customers (by NFWB)	10/1/2024	11/15/2024
1.3a	Send out updated Customer Notification Letters		
1.4	Develop GIS Applications for Data Collection and Public Facing Service Line Inventory	10/16/2024	12/31/2024
1.5	Provide Training, Database Maintenance, and Application Changes	1/1/2025	12/31/2025
1.6	Develop SOP (incl. associated costs) for Recommended Field Verification Program	10/16/2024	12/31/2025
1.7	Develop Work Plan for Statistical Analysis to Achieve 95% Confidence Interval	11/18/2024	2/7/2025
1.8	Collaborate with NFWB to update and maintain SLI	10/16/2024	12/31/2025
1.9	Develop and Update Public Education and Outreach Materials to Support Program Communications	9/17/2024	12/31/2025
2	**Develop Lead Service Lateral Replacement Program**	**9/17/2024**	**12/31/2025**
2.1	Develop Draft Lead Service Line Replacement Plan (incl. CIP Costs, Replacement Rates, etc.)	1/1/2025	7/30/2025
2.2	Develop Final Lead Service Line Replacement Plan	7/30/2025	9/30/2025
2.3	Prepare Bipartisan Infrastructure Law (BIL) LSL Replacement Submission	4/11/2025	6/15/2025
2.4	Lead Service Line Replacement Funding Support	11/1/2024	12/31/2025
2.5	Regulatory Consulting (i.e. NYSDOH Q&A, Two (2) Technical Workshops, etc.)	11/1/2024	12/31/2025
2.6	Prepare SOP for leveraging existing Lucity software to track customer communications	11/1/2024	2/14/2025
2.7	Prepare SOP for leveraging existing Lucity software to track pitcher filter distribution	11/1/2024	2/14/2025
2.8	Develop and Update Public Education and Outreach Materials to Support Program Communications	9/17/2024	12/31/2025
3	**Sampling Monitoring Program**	**9/17/2024**	**12/31/2025**
3.1	Develop Sample Monitoring Program SOP to Achieve Desired Tracking, Data Management, & Reporting	9/17/2024	12/31/2024
3.2	Support Implementation of Sampling Monitoring Program based on NFWB Feedback	1/1/2025	12/31/2025
3.3	Review NFWB Corrosion Control Treatment Program and Recommend Additional Analyses	11/1/2024	12/31/2025
3.4	Implement Additional Corrosion Control Treatment Analyses (if Authorized by NFWB)	1/1/2025	12/31/2025



1020-021

Section 6

Fee Proposal and Rate Structure

Section No. 6

Fee Proposal and Rate Structure

Fee Review and Negotiation

Our approach and fee structure will provide NFWB with the high-value that you expect. As requested, our fee will be billed on a Time and Materials basis using our rate table and the "Not to Exceed" Values for each task in the RFP and as noted in the accompanying Fee and Work Breakdown Structure (WBS) table; the Fee and WBS table includes Hazen personnel hours/rate table, subconsultant costs, and a recommended contingency to derive a recommended Not-To-Exceed Task and Contract Value. We have also identified specific tasks where we anticipate NFWB resources can directly contribute so that NFWB can directly recoup some of the existing BIL grant funds.

Our Fee Proposal is based on the following key goals:

- Maintain Regulatory Compliance – The initial Service Line Inventory (SLI) is due this fall (2024) and soon afterwards customer notifications must be sent out. Our team is prepared to respond quickly to meet these dates and prepare and work with NFWB to improve the SLI in 2025, prior to the annual updates that are required. The task 3 OCCT evaluations will also identify actions which NFWB can take to minimize the risk of a future Action Level exceedance in the first round of LCRR sampling in 2026.
- Maximize Grant Reimbursement – NFWB's 2022 BIL grant for $472,780 is solely focused on building and improving the SLI. We have structured our fee to maximize reimbursement directly to NFWB for efforts of your staff and our consulting fee, and will achieve greater than 20% M/WBE participation through collaboration with JM Davidson. We will also support NFWB with additional, likely much larger grant applications (i.e. up to $10 million), for Lead Service Line Replacement (LSLR) and other LCRR/LCRI program requirements.
- Prepare for the Future – By developing Plans and SOPs in 2024/2025 and training and building NFWB's resources our team will help prepare you for future CIP expenditures while also training your in-house staff, thus minimizing future Consultant and Contractor expenditures. The proactive OCCT evaluations will also help minimize future costs.

Rate Schedule

Title	Billing Rate ($/hour)
Assistant Engineer I	$145
Assistant Engineer II	$160
Engineer	$175
Principal Engineer	$195
Sr. Principal Engineer	$215
Associate	$245
Sr. Associate	$275
Associate Vice President	$295
Vice President	$315

1020-021

NFWB Future LCRR/LCRI Program Costs

Based on Hazen's national experience supporting utilities of similar size with drinking water compliance, we understand that the LCRR/LCRI program will be a major burden on NFWB's CIP from 2024 through 2037. We acknowledge that approximately 13,198 houses were built in Niagara Falls, prior to 1939, which have a high probability of being a lead or galvanized service line. Based on AWWA guidance for municipalities in the Northeast, projections for service lines requiring replacement for a system of your size are approximately 7,000. Additionally, based on discussions with multiple NFWB staff members, it is anticipated that there are a high number of LSLs in your system.

Typical replacement costs for service lines are estimated between $10,000 and $12,500, **which yields a range of total program costs for LSLR alone from $80 million to $165 million to be funded over the next 13 years**. With over 180 Hazen staff primarily focused on supporting water utilities with LCRR/LCRI compliance, the Hazen team will provide the most cost-effective long-term management of your LCRR/LCRI program via the following:

- Reducing unknowns in your SLI quickly and cost-effectively by leveraging NFWB resources
- Providing you with easy to understand public notification and customer outreach materials
- Training your staff on the rule and technologies for management
- Developing SOPs that NFWB staff can execute, going forward
- Applying for additional grants and low interest loans
- Preparing a long-term CIP for regulatory compliance

Hazen's expertise and approach are key to minimizing the total program costs, borne by NFWB and your rate payers, and optimizing compliance with the EPA's rules.

1020-021

NIAGARA FALLS WATER BOARD
LEAD SERVICE LATERAL ENGINEERING CONSULTING SERVICES

Fee & Work Breakdown Structure for 2024 and 2025

Fee Summary

Work Breakdown Structure

Task	Name	Hazen Hours	Hazen Fee	Subs and ODCs	Recommended NTE Value	Technical Advisor Lenz, Arnold	Program Manager Seider	Project Manager / SLI Lead, Salvagno	Sampling Lead, Nystrom	Project Engineer, Nigro, Sidhu	Technical Support Dunn, Schlotterbeck
1.0	**Service Line Inventory**	**1,155**	**$209,555**	**$54,500**	**$264,055**	**18**	**117**	**162**	**72**	**254**	**532**
	Support Finalization of NFWB Service Line Inventory	128	$26,660	$11,000	$37,660	2	36	22	6	22	40
	Records Review incl. Records Digitization (up to 10,000 records)	62	$12,000	$8,000	$20,000	0	12	12	2	12	24
	Align SLI with NYSDOH Template	43	$9,050	$2,000	$11,050	1	12	8	2	8	12
	Submit SLI to NYSDOH	23	$5,610	$1,000	$6,610	1	12	2	2	2	4
1.2	GIS Data Collection and Public Facing SLI	404	$68,140	$38,500	$106,640	0	20	44	20	96	224
	Develop GIS Data Collection Application	120	$20,420	$15,000	$35,420	0	4	24	4	24	64
	Develop Public Facing Inventory GIS Application w/ Associated Reporting	128	$20,740	$15,000	$35,740	0	4	8	4	32	80
	Application Training and Maintenance (through end-2025)	156	$26,980	$8,500	$35,480	0	12	12	12	40	80
1.3	Recommendations for Customer Notifications Distribution	21	$3,815		$3,815	0	1	4	4	4	8
1.4	Develop Public Education and Outreach Materials	203	$36,090	$5,000	$41,090	3	16	36	8	36	104
	Develop Communications Plan Outlining SOPs for NFWB Compliance	79	$13,430		$13,430	1	4	12	2	12	48
	Develop Public Education and Outreach Materials	70	$11,960		$11,960	0	4	12	2	12	40
	Complete up to Two (2) Community Meetings Describing LCRR/LCRI	54	$10,700	$5,000	$15,700	2	8	12	4	12	16
1.5	Develop Work Plan for Non-lead Verification	399	$74,850		$74,850	13	44	56	34	96	156
	Evaluation of Existing Service Line Data to Support Non-Lead Verification	43	$8,550		$8,550	1	8	8	2	12	12
	Develop Work Plan with Associated Costs for Completing Non-Lead Verification	46	$9,280		$9,280	2	8	8	4	12	12
	Up to Two (2) Review Workshops with NFWB to Review Work Plan	70	$13,360		$13,360	2	12	8	4	12	32
	Non-Lead Statistical Analyses to Achieve 95% Confidence	240	$43,660		$43,660	8	16	32	24	60	100
2.0	**Develop a LSL Replacement Program**	**522**	**$99,510**		**$99,510**	**14**	**60**	**94**	**50**	**126**	**178**
2.1	Develop LSL Replacement Program (incl. Capital Costs & Replacement Rates)	236	$41,920		$41,920	4	12	44	12	64	100
2.2	Develop Submission to 2025 Bipartisan Infrastructure Law Program	14	$3,270		$3,270	2	4	2	2	2	2
2.3	Additional Funding Support and Application Development (up to 4 grant applications)	126	$23,140		$23,140	2	8	24	12	40	40
2.4	Develop SOP for Pitcher Filter Distribution & Tracking	50	$10,620		$10,620	2	12	8	8	8	12
2.5	Develop SOP for Customer Communications	50	$10,620		$10,620	2	12	8	8	8	12
2.6	Develop GIS Applications and Recommendations for Lucity (CMMS) Modifications	46	$9,940		$9,940	2	12	8	8	4	12
3.0	**Sampling Monitoring Program**	**522**	**$99,800**		**$99,800**	**14**	**60**	**96**	**64**	**96**	**192**
3.1	Sample Site Identification	86	$16,200		$16,200	2	12	12	8	12	40
3.2	Sample Collection Procedures (incl. Sequential Sampling beyond 5th L)	82	$15,880		$15,880	2	12	12	12	12	32
3.3	School and Childcare Facility Sampling	90	$17,040		$17,040	2	12	12	12	12	40
3.4	Corrosion Control Treatment Review and Recommendation Memorandum	264	$50,680		$50,680	8	24	60	32	60	80
PROJECT TOTAL (Hazen, Subs, and ODCs)		**2,199**	**$408,865**	**$54,500**	**$463,365**	**46**	**237**	**352**	**186**	**476**	**902**
Recommended Contigency Allowances											
	Task 1: Additional records review or additional analysis / model iterations				$65,000						
	Task 2: Develop standard specs and details for LSLR's to be incorporated into future NFWB watermain replacement projects				$25,000						
	Task 3: Tap sampling field support				$20,000						
	NFWB CONTINGENCY ALLOWANCE				$25,000						
CONTRACT TOTAL (including contingencies)					**$598,365**						

1020-021

Appendix A

Reference Projects

Reference Projects

Our experience with LCRR/LCRI Compliance Programs provides us with a deep understanding of the critical issues that must be addressed and/or goals that must be achieved for this Program to be considered a success. These include, but are not limited to:

- ✓ Developing an effective framework for a multi-year program that promotes communication across all stakeholders and early identification and resolution of issues so regulatory deadlines are met;
- ✓ Conducting historic research to understand the plumbing codes and how requirements related to use of lead changed over time;
- ✓ Using multiple methods to help identify LSLs;
- ✓ Evaluating all funding opportunities, particularly on the private side;
- ✓ Improving customer confidence through effective and transparent notification, education and outreach; and
- ✓ Staying engaged with regulators to readily adapt to any changing requirements.

Hazen has selected the following four reference projects because they are directly relevant to work to be performed under this program.

- **Town of Tonawanda, NY—LCRR/LCRI Program Assistance.** This project was selected because it highlights the same local project delivery team Hazen is proposing for this assignment providing the Town with a similar, solid compliance foundation and advisory services.
- **Miami-Dade Water and Sewer Department, FL—Phase 1 Lead Service Line Replacement Plan and Inventory:** This project was selected because it demonstrates Hazen's experience conducting early tasks (LSL inventory and LSL Replacement Plan) for a large water utility currently serving 2.3 million people. This system was formed by consolidating several smaller water systems.
- **WSSC Water, MD—LCR Revisions Compliance Plan:** This project was selected because it demonstrates Hazen's experience establishing an overall framework and roadmap for LCRR compliance, our strategies for investigating LSLs on private property, and our ability to collaborate with utilities to develop an effective outreach strategy.
- **City of Chesapeake, VA—Lead Service Line Replacement Plan and Inventory:** This project was selected because it demonstrates Hazen's experience with a multi-year LCR compliance program and ability to secure grant funding for these programs for our clients.

Following our reference projects, we have provided four additional summaries of relevant Hazen projects that highlight our experience completing comprehensive LCRR work for our clients.

This page is intentionally left blank.

Relevant Project #1

LCRR/LCRI Program Assistance

Town of Tonawanda, NY

The Town of Tonawanda (Town) water system serves more than 88,000 residents in Tonawanda, the Village of Kenmore, and numerous commercial businesses and industries through more than 23,000 service connections. Hazen was retained to provide compliance-related services in advance of the EPA's upcoming LCRR/LCRI deadlines. Work includes the following tasks:

Project Profile

Duration

January - December 2024

Status

Ongoing

Contract Amount

436,000

Service Line Inventory (SLI) Development

Hazen is supporting the Town with SLI improvements, including digitization of more than 60,000 plumbing permits and text extraction of relevant service line attributes, review of historical water main records to determine the installation of public service line materials, and statistical evaluations to target field inspections and ultimately submit an approvable work plan to reduce unknowns to the local and State Health Departments.

GIS Software Application Development

Utilizing the Town's ESRI ArcGIS Enterprise License, Hazen's GIS staff are supporting the development of dashboard visualization, data collection, and SLI web applications. These tools will serve a variety of purposes, including communicating key insights to the public, internal Town stakeholders, and third-party contractors. This effort will empower Town GIS users to be autonomous in maintaining and updating these applications.

Development of LSL Replacement Plan

Hazen is developing a LSL Replacement Plan that incorporates a strategy for supporting underserved/underutilized populations, funding strategies that align with historic and anticipated future capital budgets, and standard procedures for information distribution, sampling, and design documents. The plan will include public education and outreach materials and materials to support legal discussions internally on code provisions and/or municipal ordinances to facilitate LSL replacement.

Updated Sampling Procedures and Public Notifications

A Sample Site Plan will be developed to identify sample sites (including lead and copper compliance, schools, and childcare facilities) and establish SOPs for sample collection and tracking, data storage and reporting, and public notification. The NYS Office of General Services database will be utilized to develop a list of licensed childcare facilities, and past efforts included under lead sampling in schools for Subpart 67-4 will be referenced. Additional customer education and outreach materials will be developed to support the Town's shift in compliance sites, including instructions for new sampling protocols and communicating the health risks of lead.

Relevant Project #2

Phase 1: Lead Service Line Replacement Plan and Inventory Assistance

Miami-Dade County Water and Sewer Department (WASD), FL

WASD, a department of Miami-Dade County, is one of the largest public utilities in the United States, employing more than 2,500 staff and providing direct service to more than 444,000 customers. Hazen is working with WASD staff across multiple departments to develop a LSL Inventory and LSL Replacement Plan; this includes the development of a service line identification strategy using a likelihood analysis, extensive collaboration with the County to develop identification criteria, and the establishment of a detailed replacement strategy.

Extensive Records Review for Development of LSL Inventory

Hazen has developed and populated an LSL Inventory for WASD. As part of this process, extensive records research was completed. WASD serves more than 30 individual city municipalities along the western coast of Florida. Similar to the Authority, these service areas were acquired over time and the historical adaptation of plumbing codes varied between the individual service areas. A thorough historical records review was completed for each service area in the system, revealing a range of possible years in which lead was an allowable material in service connections. The results of this records research serve as verification that local plumbing codes in the WASD service area precede the national ban of lead in 1986. Instead, **WASD is able to use the South Florida Plumbing Code ban of lead in 1976 as a cutoff date, enabling WASD to identify an additional 56,455 service lines within their service area as non-lead.**

Geospatial Likelihood Analysis Tool for Targeting Service Line Identification and Replacement Programs

Using a proven phased approach, Hazen is also developing an LSL identification strategy using a geospatial likelihood analysis to establish the likelihood for lead at each parcel within the service area. These results will be overlaid with a geospatial assessment of sensitive or underserved consumer populations to prioritize service line material identification and replacement efforts.

Development of Customized LSL Replacement Plan

Hazen is developing a customized LSL Replacement Plan tailored to WASD's long term goals. This replacement plan takes advantage of planned capital improvement projects and includes the establishment of a detailed replacement strategy, follow-up actions for LSL replacements, development of customer coordination materials, and development of planning level programmatic costs and durations for service line identification and replacement.

Project Profile

Duration

August 2021 - August 2022

Status

Phase 1 completed July 2022

Contract Amount

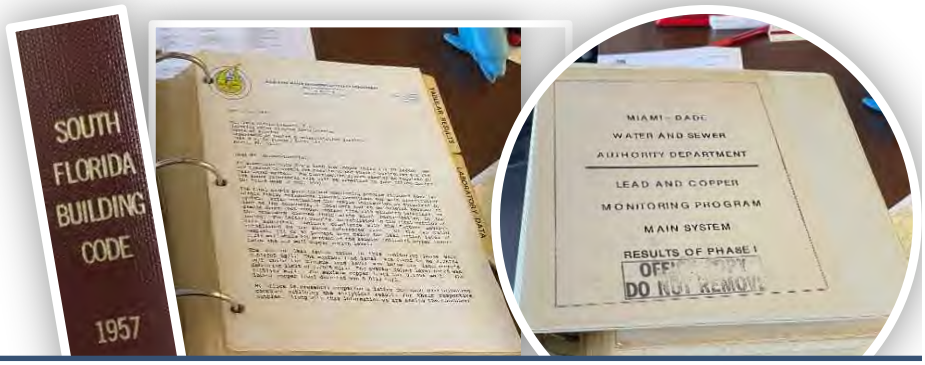
Phase 1: $360,000
Total Program Value: $1.5M *(est.)*

1020-021

Utilizing Extensive Records Research and Statistical Analysis to Reduce Field Identification Efforts

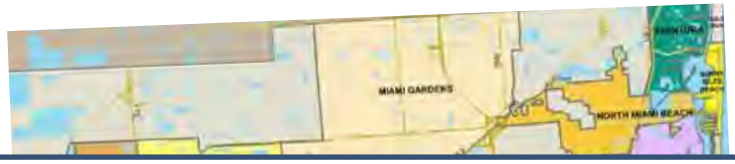
Miami Dade LSL Replacement Plan and Inventory Assistance: A Proven Approach for a Similar System that can be used to Support the Authority's Plan, Focus Efforts on Target Areas, and Reduce Unnecessary Costs in Field Identification.

1 WASD's system comprised over 30 acquired service areas, requiring a more extensive records research.



2 Results of from the historical records review were used to develop a statistical modeling tool to establish the likelihood for lead within each municipality during various time periods.

LSL Likelihood Eras	Municipality	Coral Gables	Miami	Miami Beach
	1895-1925	Allowed	Allowed	LSL Not Allowed
	1925-1931	LSL Not Allowed	Allowed	LSL Not Allowed
	1932-1943	LSL Not Allowed	Allowed	LSL Not Allowed



3 Using this information, the statistical model was expanded using construction dates and other parameters to determine the likelihood for lead within each parcel of the WASD distribution system. A geospatial analysis tool was used to target LSL Identification and Replacement efforts and is being used to develop a customized Replacement Plan.

1020-021

Relevant Project #3

LCR Revisions Compliance Plan

WSSC Water, Laurel, MD

Hazen is providing programmatic assistance to help WSSC Water comply with the LCR Revisions; this includes an Action Plan for service line inventory (SLI), lead service line replacement plan, corrosion control treatment, and public outreach.

Detailed Action Plan

Hazen developed an LCR Revisions Action Plan for WSSC Water. The action plan is tailored to WSSC's compliance program goals and establishes an overall framework and road map for compliance with the LCR Revisions. Hazen is working collaboratively with multiple WSSC Water departments to leverage existing program resources and identify future tasks necessary to meet and exceed new regulatory requirements. Alternative approaches to address each of the key requirements were evaluated and an implementation framework was developed for the selected approach.

SLI Framework

Hazen is assisting with records review, data analysis, and assessment of lead and galvanized iron service lines. Hazen is developing recommendations for additional actions to identify service line materials and improve accuracy of the inventory.

Corrosion Control Treatment Optimization

Hazen is reviewing historical corrosion control practices and water quality data to identify potential optimization strategies. Recommendations for additional actions to improve corrosion control were provided for long-term planning and treatment optimization.

Hazen developed a comprehensive LCRR Action Plan custom-tailored to WSSC's program goals to provide a complete road map for compliance.

Project Profile

Duration

July 2021 - March 2022

Status

Final Draft submitted

Contract Amount

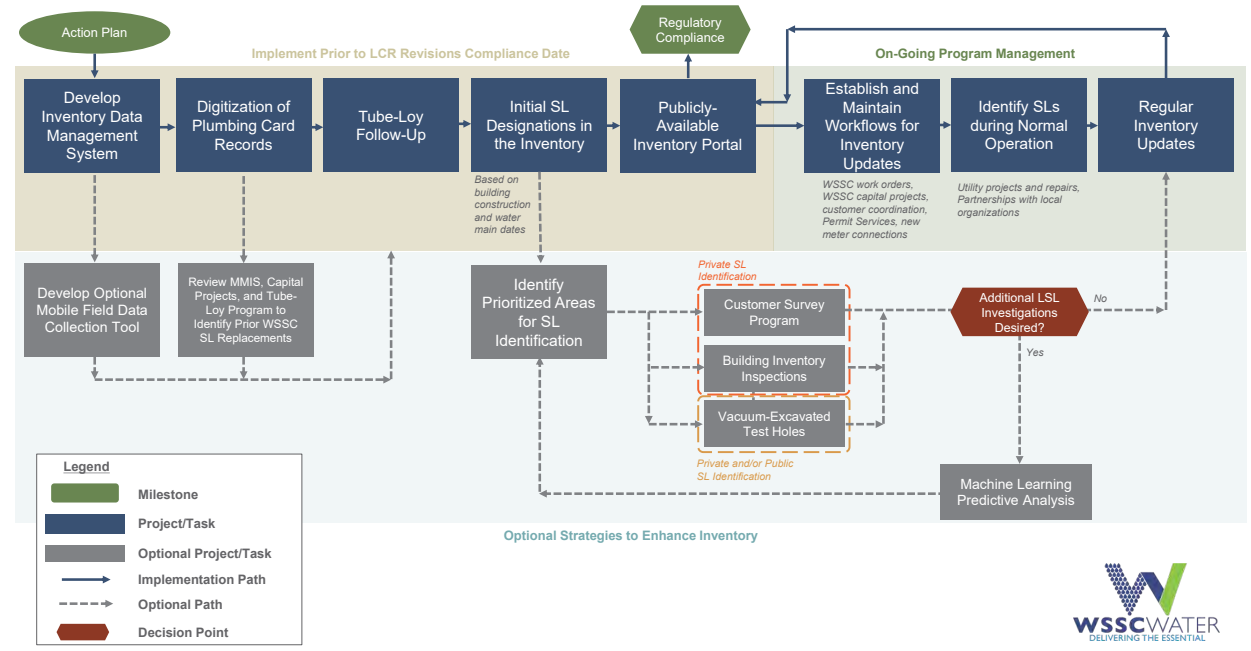
$90,310
Total Program Value:
Will depend on finalization of LCRR Compliance Approach Tasks

1020-021

The flow chart below summarizes the LSL inventory development process used for WSSC. This process included potential optional strategies to enhance the inventory quality and accuracy and consisted of activities in the following categories:

- Actions which will need to be implemented before the LCRR compliance date.
- Processes for on-going management of the SLI.
- Optional strategies to enhance inventory accuracy which can be implemented before or after the LCRR compliance date.

LSL Inventory Development



1020-021

Relevant Project #4

Service Line Inventory (SLI), Replacement Plan, Grant Funding
City of Chesapeake, VA

Hazen has provided continued support to the City's initiative to proactively prepare for LCRR Compliance through the development of a lead SLI, LSL Replacement Plan, sequential sampling, grant funding application, and regulatory coordination.

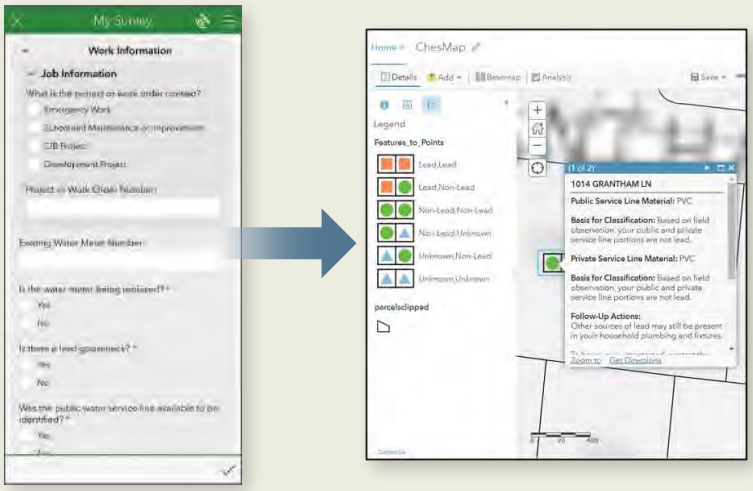
SLI and Mobile Field Identification Tool

Hazen collaborated with the City to develop a geospatial SLI. The inventory tool has a customized interfaced to display service line information to customers in a user-friendly format. Hazen developed a customized mobile field data collection tool, linked to the City's GIS system, to facilitate service line data collection during routine utility repairs and replacement and targeted identification efforts. Photographs and field observations can be automatically linked from mobile devices to the inventory for tracking.

LSL Geographic Delineation and Prioritization

In the past, when LSLs were encountered in the City's system, only the public portion of the service line was replaced. Although LSLs have been observed in the field, the City has minimal available records to locate them.

The Service Line Inventory and Mobile Field Identification Tool was developed to provide customers service line information in a user-friendly format



Project Profile

Duration

July 2019 - February 2020
(Phase 1, contracted/actual)

Status

Phase 2 completed June 2022

Contract Amount

$628,000
Total Program Value: $1.3M *(est.)*

1020-021

Likelihood Assessment

Hazen performed a preliminary likelihood assessment of LSL locations in the City using historical records, local plumbing codes, construction standards, published industry research, and City staff knowledge. Geographic areas with the greatest likelihood to contain LSLs were delineated, and service line identification efforts within these areas were prioritized.

Sequential Sampling

The City will be required to collect and analyze both first and fifth liter samples for LCRR Compliance. To proactively prepare the City for this regulatory requirement, Hazen performed sequential sampling to evaluate lead levels and explore sequential sampling as a possible diagnostic tool to assist in determining the presence of lead at targeted locations throughout the service area.

Team member Roger Arnold shown leading the sampling effort for the City of Chesapeake.

Grant Funding and Action Plan for Identification and Replacement

Hazen developed a grant funding application on behalf of the City through the Virginia Department of Health (VDH) LSLR grant program to secure funding for private LSLR Replacement. An action plan was also developed that included customer outreach, additional funding opportunities, and protocols to mitigate lead exposure. Hazen assisted the City in reviewing legal barriers to private LSLR Replacement and is developing approaches to encourage customer participation.

Other Relevant Experience

Hazen's experience on other similar projects is summarized below and on the two pages following:

LCR Revisions Compliance Plan City of Richmond, VA

Hazen is working with the City of Richmond (City) to develop a compliance plan for the LCR Revisions, focusing on public outreach, tap sampling, corrosion control, and the development of an SLI and LSL replacement plan. Recommendations focus on enhancing efforts to identify LSLs, augmenting the City's existing LSL replacement program, and expanding customer outreach to support these endeavors.

Service Line Inventory (SLI)

Records from prior LSL replacements conducted by the City were used to train a model for predicting LSL locations. Hazen assisted the City to examine options for a GIS-based SLI and integration with existing data management practices.

Sequential Sampling

Hazen trained and assisted the City in performing sequential sampling at sites with LSLs to evaluate lead levels from LSLs, especially in the fifth liter. Hazen developed a sampling protocol and customer outreach flyer to encourage participation in the program.

Lead Service Line (LSL) Replacement

Hazen reviewed the City's LSL program and provided recommendations to enhance the program. The program included a combination of LSL replacement during capital projects and customer-initiated replacements through a grant program. Hazen provided additional guidance on point-of-use (POU) filters and follow-up tap sampling.

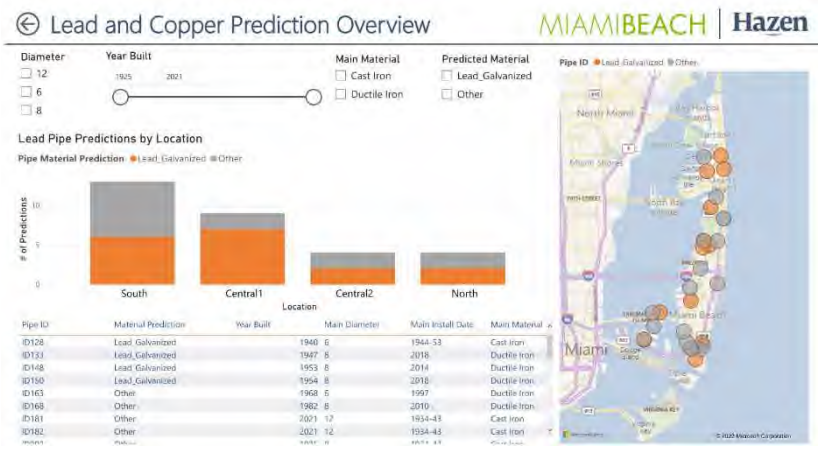
Public Outreach for the City of Richmond

Hazen assisted the City with planning a public outreach program on lead in drinking water. In addition to meeting compliance with the LCR Revisions, public outreach will be designed to help the City to obtain customer feedback on LSL locations and encourage cooperation with private LSL replacement. This also included the development of materials to explain procedures following an LSL replacement, such as flushing procedures and pitcher filter specification, selection, and instructions.

1020-021

Lead Service Line Machine Learning Modeling and Predictive Analytics, City of Miami Beach, FL

Hazen has extensive experience in developing tools based on machine learning and predictive analytics. For the City of Miami Beach, Hazen developed a machine learning (ML) model to identify lead service lines. The ML model developed was trained using 13 predictor variables, including water network data, parcel data, census data, and a dataset of service lines with identified materials. The final machine learning algorithm has a recall score of 83%. Knowing the importance of accurately predicting lead in the system, Hazen chose recall as a more conservative key metric as it aims to reduce the number of false negatives (service lines predicted to be non-lead that are truly lead). The final model assigns each uninspected service line a probability of being a lead service line. This predictive information is then used by the City of Miami Beach to develop a prioritized list for inspection. One large advantage to this type of approach to lead service line identification rather than traditional modeling is that as new inspection data is obtained by the City of Miami Beach, the model is recalibrated with the field data, improving overall model accuracy.



Lead and Copper Rule Revisions Compliance Implementation, City of Tempe, AZ

The City of Tempe's LCRR Compliance Implementation project includes developing a service line inventory (SLI), coordinating regulations, establishing an LSL Identification and Replacement Plan, updating the City's sampling program, and developing a streamlined communication plan.

SLI, Regulatory Coordination, and Field Verification

Hazen is developing the City's LSL inventory, which will serve as the foundation for the remaining LCRR compliance requirements. Regulatory coordination with the Arizona Department of Environmental Quality (ADEQ) is a critical element.

1020-021

LCRR Compliance Program, Gainesville Department of Water Resources (GDWR), GA

Hazen is developing an LCRR Compliance Program for GDWR through the creation of an action plan, service line inventory (SLI), sampling program, and lead service line (LSL) replacement program. The programmatic, multi-department Action Plan developed provides a detailed schedule and defined tasks for compliance with the LCRR Revisions. The development of an SLI and likelihood analysis model will guide identification efforts. A comprehensive sampling plan for schools and childcare facilities and identification of customer communication strategies will guide GDWR in complying with new sampling and notification requirements.

Service Line Inventory (SLI)

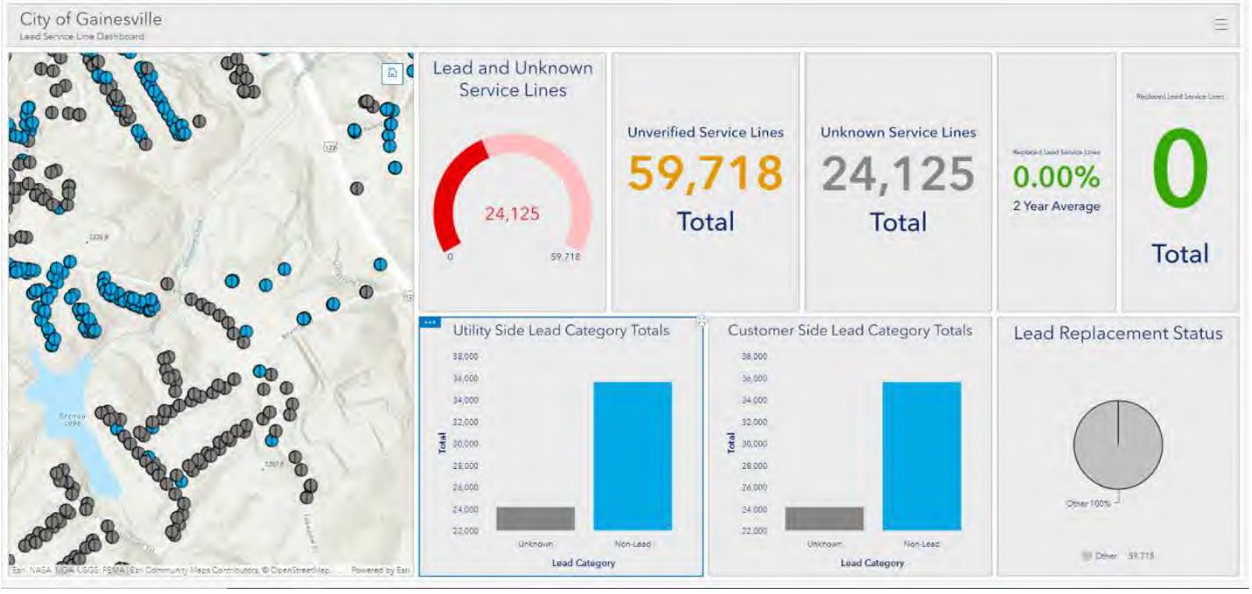
Records from prior LSL replacements conducted by the City were used to train a model for predicting LSL locations. Hazen assisted the City to examine options for a GIS-based SLI and integration with existing data management practices.

Sequential Sampling

Hazen trained and assisted the City in performing sequential sampling at sites with LSLs to evaluate lead levels from LSLs, especially in the fifth liter. Hazen developed a sampling protocol and customer outreach flyer to encourage participation in the program.

Lead Service Line (LSL) Replacement

Hazen reviewed the City's LSL program and provided recommendations to enhance the program. The program included a combination of LSL replacement during capital projects and customer-initiated replacements through a grant program. Hazen provided additional guidance on point-of-use (POU) filters and follow-up tap sampling. strategies will guide GDWR in complying with new sampling and notification requirements.



Appendix B

Resumes

Dan Seider, PE

Associate Vice President

Mr. Seider brings extensive experience in the water industry's public and private sectors. His project work includes the planning, design, and construction of a large public drinking water system in New York State.

Education

ME, Civil Engineering, SUNY at Buffalo, 2000

BS, Civil Engineering, SUNY at Buffalo, 1996

Certification/License

Professional Engineer: NY

NYS Department of Health Grade 1A-SW/GUI and Grade D Water System Operator

40-hour HAZWOPER Certification

Areas of Expertise

- Project management
- Public drinking water systems
- Condition assessments
- Water and wastewater utilities
- Utility operations
- Capital improvement plans

Experience

- 28 total years
- 1 year with Hazen

Professional Activities

American Public Works Association

- New York State Western Branch Board Member

American Water Works Association

LCRR/LCRI Program Assistance, Town of Tonawanda, NY
Project Manager. Leading improvements to the Town's compliance program in advance of key deadlines for the US EPA's Lead and Copper Rule Revisions/Lead and Copper Rule Improvements (LCRR/LCRI). Project specific tasks include the creation of a service line inventory for submission to the NYSDOH leveraging the digitization of more than 60,000 records to extract relevant service line attributes. Development of a Lead Service Line (LSL) replacement plan will also be completed to prioritize funding for underrepresented/underserved populations in the water system and align with anticipated capital budgets. Public education materials are being developed to support water service line investigations in Town residences, describe updated compliance sampling practices, and inform health risks associated with lead. Hazen is also leading the development of web applications using the Town's Enterprise GIS software license to summarize various metrics associated with the compliance program, including customer survey responses, reduction of inventory unknowns, and inspections completed by Town staff.

Water and Sewer CIP Including LCRR/LCRI Program Assistance City of North Tonawanda, NY
Project Manager. Leading the development of an Enterprise ArcGIS Geodatabase, hydraulic models, and 20-year Capital Improvement Plans for the water distribution system and sanitary and storm sewer collection systems. Additionally, the project includes LCRR/LCRI support for the review and digitization of available records to incorporate into a NYSDOH compliant service line inventory, lead service line replacement plan, and sampling plan updates. Public education materials are being developed to support service line material identification, compliance sampling practices, and full or partial lead service line replacements.

Experience Prior to Hazen

LSL Replacement Program, City of New London, CT
Senior Technical Lead. The project involved development and execution of a full LSL replacement program, which included LSL inventory development leveraging machine learning, design and bidding services, public outreach and communication, program management, construction management, and stakeholder coordination.

Initial LCRR Compliance and Risk Assessment, City of North Tonawanda, NY
Project Manager. Led the risk and compliance assessment of the City's operations and practices related to corrosion control treatment, LSL inventory, and LSL replacement plan compared to LCRR. Following an intensive information review and desktop analyses, a series of workshops was conducted to identify areas of improvement to comply with the LCRR. Project deliverables included a roadmap and budgetary estimates for recommended next steps to support capital planning and grant funding applications.

LCRR Program Management, Erie County Water Authority (ECWA), Buffalo, NY
Technical Advisor. Provided technical support for the overall program, including LSL inventory and replacement, school and childcare sampling, tap and water quality parameter monitoring, and public education and outreach. Led the contract document development for test pits of 200 service lines throughout the ECWA service area to inform the statistical model for LSL identification and the publicly available service line inventory.

Comprehensive Corrosion Control Study, Great Lakes Water Authority, Detroit, MI
Technical Advisor. Provided technical support for the design and construction of pipe loop rigs to evaluate the effects of a change in corrosion control treatment (i.e., orthophosphate dose) on metals release and pipe integrity.

City of North Tonawanda Water Treatment Plant Improvements, Niagara County, NY
Project Manager. The project involved a condition assessment, alternatives evaluation, and design and construction phase services for improvements to the City's 12-mgd drinking WTP. It included a new low service pump station, high service pump replacements, sedimentation basin improvements, delivered water meter vaults, transmission main replacements, and associated structural, electrical, HVAC, SCADA, and instrumentation improvements.

Cyanotoxin Treatment Study, Bolton Point Water System, Ithaca, NY
Project Manager. The project involved evaluation of the Cayuga Lake source water and development of treatment alternatives to effectively protect against cyanotoxins during harmful algal bloom (HAB) events. Final recommendations included treatment techniques aimed at maximizing turbidity removal while minimizing the potential for lysing cyanobacteria cells. Additionally, it was recommended to depress the finished water pH and increase the post-filter chlorine residual to provide sufficient chlorine CT to destroy any remaining extracellular toxins in the finished water. Powdered activated carbon was also recommended to provide a multi-barrier approach to protecting the water supply.

John Salvagno, PE, CDT

Principal Engineer

Mr. Salvagno works as a water quality engineer developing corrosion control treatment studies, service line inventories, lead service line replacement, and data management best practices. He has led multiple projects related to achieving compliance of the US EPA's LCRR.

Education

MS, Engineering Management, Cornell University, 2017

BS, Environmental Engineer, Cornell University, 2016

Certification/License

Professional Engineer: NY

Certified Construction Documents Technologist

Areas of Expertise

- LCRR compliance
- Water quality
- Corrosion control
- UV treatment
- Collection system evaluations
- Pumping system design

Experience

- 7 total years
- 1 year with Hazen

Professional Activities

New York Water Environment Association

- Western Chapter Board of Directors

LCRR/LCRI Program Assistance, Town of Tonawanda, NY
Project Engineer. The project involves improvements to the Town's compliance program in advance of key deadlines for the US EPA's Lead and Copper Rule Revisions/Lead and Copper Rule Improvements (LCRR/LCRI). Project specific tasks include the creation of a service line inventory for submission to the NYSDOH leveraging the digitization of more than 60,000 records to extract relevant service line attributes. Development of a Lead Service Line (LSL) replacement plan will also be completed to prioritize funding for underrepresented/underserved populations in the water system and align with anticipated capital budgets. Public education materials are being developed to support water service line investigations in Town residences, describe updated compliance sampling practices, and inform health risks associated with lead. Hazen is also leading the development of web applications using the Town's Enterprise GIS software license to summarize various metrics associated with the compliance program, including customer survey responses, reduction of inventory unknowns, and inspections completed by Town staff.

Corrosion Control Treatment Program Pipe Loop Demonstration Study, Erie County Water Authority (ECWA), Buffalo, NY
Project Engineer. This study is being conducted to ensure compliance with the LCRR and achieve a unified corrosion control approach with the City of Buffalo. Responsible for the efforts to develop a Pipe Loop Testing Work Plan, design and procure a Pipe Loop Rig System, and operation of the pilot. The University of Buffalo is assisting in maintaining the pipe loop and sampling collection and analysis. Washington University in St. Louis will conduct an off-site pipe loop study at their laboratory and conduct scale analysis of lead pipes from the Authority's system used in the pipe loop studies. Hazen is also providing assistance with the Authority's corrosion control program by performing a sequential sampling study and developing a Power BI Water Quality Dashboard for viewing data from routine distribution system monitoring data and LCR compliance monitoring data.

Experience Prior to Hazen

Initial LCRR Compliance Roadmap, Town of Tonawanda, NY
Project Engineer. The project involved a risk and compliance assessment of the Town's operations and practices related to corrosion control treatment, LSL inventory and LSL replacement plan compared to LCRR. Following an intensive information review and desktop analyses, a series of workshops were conducted to identify areas of improvement to comply with the LCRR. Project deliverables included a roadmap and budgetary estimates for recommended next steps to support capital planning and funding decisions.

LCR Sampling Review, Aqua Illinois, IL
Project Engineer. Performed an LCR sampling review to maintain compliance with the LCR and recent US EPA guidance on best practices. Reviewed existing materials inventory, including information on the population served, number of service connections by type of structure, the type of interior and distribution system plumbing materials, plumbing codes, plumbing permits, local ordinances, distribution system maps, construction, and installation records, and tap records.

Corrosion Control Treatment, ECWA, NY
Project Engineer. Assisted with an evaluation of the Authority's existing corrosion control practices, and provided an updated corrosion control desktop study to address current water quality. Work utilized several databases, including geospatial and historic sampling data using ArcGIS Pro and Power BI. Also assisted in development of the final report, which included an overview of regulatory and academic information, current corrosion control practices, and recommended best practices for optimal corrosion control treatment.

LSL Material Inventory and Replacement Plan, Various Systems, Aqua America, US
Project Engineer. Responsible for risk assessment and development of LSL work plans for 53 systems across Aqua's four priority states (PA, OH, IL, NJ), development of complete service line inventory for one of their systems (~32,000 service connections) to support state and federal ser vice line inventory requirements and tap sampling plan updates, assessment of service line records for over 150 remaining systems which have no lead service lines and development of written statements to satisfy public- facing inventory requirements. Developed service line inventories for 4 large high priority systems (SL Connections of 12,000; 13,000; 33,000; and 276,000) using historical records (i.e., plumbing codes and tap cards), available GIS records (water main & home build data) and developed a real-time mobile application for tracking on-site verification of service line materials (via both potholing and in-home inspections).

Mark Lenz, PE, CDT

Vice President

Mr. Lenz has worked for 28 years - across multiple countries and over 30 states - to help ensure safe drinking water is available to 35+ million people. This includes a decade of providing LCR and LCRR support for utilities.

Education

MS, Environmental Engineering, Cornell University, 1996

BS, Environmental Engineering, Cornell University, 1995

Certification/License

Professional Engineer: NY

Certified Construction Documents Technologist

Areas of Expertise

- Drinking water regulatory compliance (LCR/LCRR, LT2ESWTR, etc.)
- Municipal drinking water, wastewater, stormwater, and water resiliency improvements
- Disinfection and disinfection by-products
- Project and program management

Experience

- 28 total years
- 1 year with Hazen

Professional Activities

American Water Works Association

Water Environment Federation

LCRR/LCRI Program Assistance, Town of Tonawanda, NY
Technical Advisor. The project involves improvements to the Town's compliance program in advance of key deadlines for the US EPA's Lead and Copper Rule Revisions/Lead and Copper Rule Improvements (LCRR/LCRI). Project specific tasks include the creation of a service line inventory for submission to the NYSDOH leveraging the digitization of more than 60,000 records to extract relevant service line attributes. Development of a Lead Service Line (LSL) replacement plan will also be completed to prioritize funding for underrepresented/underserved populations in the water system and align with anticipated capital budgets. Public education materials are being developed to support water service line investigations in Town residences, describe updated compliance sampling practices, and inform health risks associated with lead. Hazen is also leading the development of web applications using the Town's Enterprise GIS software license to summarize various metrics associated with the compliance program, including customer survey responses, reduction of inventory unknowns, and inspections completed by Town staff.

Corrosion Control Treatment Program Pipe Loop Demonstration Study, Erie County Water Authority (ECWA), Buffalo, NY
Project Director. This study is being conducted to ensure compliance with the LCRR and achieve a unified corrosion control approach with the City of Buffalo. Responsible for the efforts to develop a Pipe Loop Testing Work Plan, design and procure a Pipe Loop Rig System, and operation of the pilot. Washington University St. Louis is conducting an off-site pipe loop study a and scale analysis of lead pipes to optimize the program, and the University of Buffalo is providing on-site sampling for the pipe loop system. Hazen is also assisting the Authority's Corrosion Control Program by performing a Sequential sampling study and developing a Power BI Water Quality Dashboard for viewing data from routine distribution system monitoring data and LCR compliance monitoring data.

Hillview Reservoir Functional Alternatives & LT2 Compliance, New York City Department of Environmental Protection, Yonkers, NY
Quality Manager. The project involves assisting in preparing a facility plan for consent order compliance at Hillview Reservoir. Responsible for evaluating alternatives, including reservoir cover alternatives (concrete, aluminum and/or floating), additional conveyance, replacement with new tanks and/or treatment. Also overseeing and leading screening and alternative evaluation analyses, hydraulic modeling efforts, and development of a facility plan for the preferred alternative.

Experience Prior to Hazen

LCR Consent Order Compliance Services, City of Geneva, NY
Project Director. The project included development of a service line inventory for LCRR compliance, updated tap sampling plan prioritizing Tier 1 LSLs, and updated customer outreach and public education materials. In under a year the City was brought to full LCR compliance allowing the consent order to be terminated.

Initial LCRR Compliance Roadmap, Town of Tonawanda, NY
Technical Advisor. The project involved risk and compliance assessment of the Town's operations and practices related to corrosion control treatment, LSL inventory and LSL replacement plan compared to LCRR. Following an intensive information review and desktop analyses, a series of workshops will be conducted to identify areas of improvement to comply with the LCRR. Project deliverables include a roadmap and budgetary estimates for recommended next steps to support capital planning and funding decisions.

Corrosion Control Treatment, ECWA, NY
Project Director/Project Manager. The project involved evaluation of current and alternative corrosion control treatment practices at two water treatment plants served by two different source waters. Work included desktop evaluation, detailed alternatives analysis, pipe harvesting and scale analysis of LSLs, development of a demonstration study of the recommended corrosion control treatment, and coupon testing.

Capital Improvement Program Review for LCR Compliance, Aqua America, Multiple Locations, USA
Project Director/Project Manager. The project involved review of over 200 proposed capital improvement projects across systems in eight states to assess risk of negative impacts on LCR compliance due to proposed improvements. Responsible for developing monitoring recommendations for assessing source and treatment changes on LCR and identifying desktop and demonstration corrosion control study needs.

Roger Arnold, PE

Senior Associate

Mr. Arnold serves as a nationally recognized corrosion control expert who has helped utilities across the country optimize corrosion control and minimize lead and copper levels. His experience has focused on applying field testing, scale analysis, and pipe loop testing to solve corrosion control challenges.

Education

MS, Environmental Engineering, Virginia Tech, 2011

BS, Civil Engineering, Virginia Tech, 2009

Certification/License

Professional Engineer: VA

Areas of Expertise

- Corrosion control treatment
- Lead and copper regulations
- Drinking water regulations
- Treatment optimization testing
- Water supply and treatment
- Environmental permitting
- Construction administration

Experience

- 13 total years
- 8 years with Hazen

Professional Activities

American Water Works Association

Corrosion Control Pipe Loop Demonstration Study, Erie County Water Authority, NY

Technical Lead. Hazen is conducting a pipe loop study to optimize the Authority's corrosion control treatment in preparation for the Lead and Copper Rule (LCR) Revisions (LCRR). Led the development of the Pipe Loop Testing Work Plan and design of the pipe loop equipment. Developed testing objectives and prepared an experimental approach to evaluate optimal corrosion control treatment, developed a sequential sampling plan to monitor lead release from lead service lines (LSLs), and assisted the Authority with identifying eligible sampling sites. Also assisted in developing a dashboard to monitor water quality and LCR data

LSL Replacement Action Plan, City of Chesapeake, VA

Technical Lead. Led the development of a lead service line replacement plan in preparation for compliance with the LCRR. Performed a system-wide assessment of LSL quantity and likely locations based on historical records, research of local codes, published research, and City staff knowledge. Developed a targeted service line identification strategy to support the City's service line inventory development. Identified potential funding sources to promote private lead service line replacement and coordinated with the City to obtain state grant funding. Developed a protocol for full lead service line replacement, including customer coordination needs, construction methods, and response activities.

LCRR Compliance Plan, City of Richmond, VA

Project Manager. Hazen has been working with the City to develop a compliance plan for LCRR compliance, focusing on LSL inventory and replacement, corrosion control treatment, and tap sampling. Recommendations focused on enhancing efforts to identify LSLs, augment the City's LSL replacement program, and expand customer outreach to support these endeavors. Responsible for conducting trainings and preparing reports/customer communication materials.

Phase 1: LSL Replacement Plan and Inventory Assistance, Miami-Dade County Water and Sewer Department, FL

Technical Lead. Miami-Dade County is one of the largest public utilities in the United States, serving 2.3 million residents. Hazen is assisting the County with developing an LSL Inventory and Replacement Plan. This includes the development of a service line identification strategy using a likelihood analysis, extensive collaboration with the County to develop identification criteria, and the establishment of a detailed replacement strategy.

LCRR Compliance Plan, WSSC Water, Laurel, MD

Technical Lead. Hazen is providing programmatic assistance to help WSSC comply with LCRR; this includes an Action Plan for service line inventory, an LSL Replacement Plan, corrosion control treatment, and public outreach. Led the preparation of the service line inventory development approach. Performed an initial assessment of service line materials based on available data, developed a strategy for prioritized field data collection for service lines, and provided recommendations for developing the inventory for compliance with LCRR.

LSL Replacement Flushing and Sampling Protocol, Confidential Client

Project Engineer. Developed a high-velocity flushing protocol to be implemented following residential lead service line replacement to mitigate potential lead release after construction. Developed a sequential sampling protocol to measure soluble and particulate lead levels at multiple intervals after lead service line replacement. The sequential sampling protocol includes a profile of lead release through the plumbing system to identify sources of lead release and investigate the influence of other plumbing materials such as galvanized iron. The field sampling results were used to evaluate the effectiveness of lead service line replacement and the high-velocity flushing protocol. In addition, completed a literature review of studies related to lead service line replacement, flushing, and sequential sampling.

Malia Turner

Principal Business Analyst

Ms. Turner is a member of the firm's Asset Management group. Her work includes conducting data analysis and creating data visualization solutions for clients.

Education

MS, Analytics, North Carolina State University, 2021

BS, Business and Economics, University of Kentucky, 2016

Areas of Expertise

- Data analytics
- Machine learning
- Business intelligence dashboard development

Experience

- 6 total years
- 6 years with Hazen

Professional Activities

American Water Works Association

Water Environment Federation

North Carolina Water Resources Association

Phase 1: Lead Service Line Replacement Plan and Inventory Assistance, Miami-Dade County Water and Sewer Department, FL
Business Analyst. Miami-Dade County is one of the largest public utilities in the United States, serving 2.3 million residents. Hazen is assisting the County with developing a Lead Service Line (LSL) Inventory and Replacement Plan. This includes the development of a service line identification strategy using a likelihood analysis, extensive collaboration with the County to develop identification criteria, and the establishment of a detailed replacement strategy.

Lead and Copper Service Line Inventory, Los Angeles Department of Water and Power, CA
Principal Business Analyst. The Los Angeles Department of Water and Power (LADWP) is the largest municipal utility in the United States, delivering 435 MGD to more than four million residents and local businesses. In collaboration wiht LADWP, Hazen utilized machine learning to analyze a dataset of 740,000 houses, focusing on the identification of lead/Galvanized versus Non-Galvanized service lines from 26,000 verified data points. Addressing the challenges posed by the low prevalence of lead, the team employed algorithms like Bayesian Network, XGBoost, and Random Forest. Key variables such as Property Use Type and Socio-Economic Data were pivotal in the model's performance. With a recall rate of 65%, the model's accuracy surpassed random guessing by nearly sixfold, potentially reducing pipe inspections by over 50%. The approach underscores the potential of enhanced accuracy with more data.

Machine Learning Prediction Tool, Loudoun Water, Ashburn, VA
Principal Business Analyst. Developed the Power BI Dashboard tool to display modeling results for predicting effluent total phosphorus, as the facility has a strict TP limit of 0.13 mg/L and primarily relies on membranes and alum addition to comply. The dashboard provides the ability to see summary statistics and historical trends for over 100 variables as well as providing data quality review. There are also several pages dedicated to what-if scenario analysis to inform operational strategy to reduce effluent TP by controlling orthophosphate, turbidity, and membrane permeate dissolved organic P (DOP).

Phase 1: Enterprise Dashboarding, Newport News Waterworks, VA
Principal Business Analyst. Worked with Newport News to establish needs and requirements of an Enterprise BI Dashboarding system. Core project elements included 1) meeting with key staff from each department to understand existing software, workflows, and data needs; 2) developing a recommended dashboard framework; 3) establishing a phased implementation roadmap; and 4) developing an initial proof of-concept pilot dashboard. The pilot dashboard allowed the asset management team to view and manage work orders, staff labor, and associated equipment costs. The completed pilot dashboard provided valuable improvements to data awareness and helped to demonstrate the positive potential of data systems and dashboards to the water utility's stakeholders.

Sewer Main Machine Learning Model Retraining, Raleigh Water, NC
Project Manager. A machine learning model was developed in Spring 2021 by graduate students at North Carolina State University as part of a practicum project to help Raleigh Water predict sewer main failure and maintain their over 2,000 miles of sewer pipelines. To allow Raleigh Water to receive updated model results automatically, Hazen developed and deployed a machine learning model pipeline. The pipeline runs weekly and retrains the predictive model providing updated probabilities of failure based on new data (i.e., new inspections, updated GIS information, etc.). The purpose of this technical memorandum is to document minor updates made to the machine learning model since its inception as well as to outline the pipeline processes for ingesting new data and providing model outputs.

Comprehensive Water/Wastewater Utility Master Plan, Chatham County, NC
Business Analyst. Aided in the data model and development of a comprehensive water and wastewater utility master plan to facilitate a regional effort to meet projected water and wastewater needs in both the near term and long term for Chatham County, Pittsboro, Siler City, and Goldston. The project includes 50-year water and wastewater service area demand projections, identification of future water sources/suppliers, water supply interconnections, associated water distribution hydraulic limitations. and identification of permittable wastewater discharge locations/plant expansions and/or land application options, and associated wastewater hydraulic limitations. The service area is split among three different river basins which limited water and wastewater treatment and disposal options. The master plan deliverable was developed in Power BI to facilitate updating/adapting the plan to reflect changes in growth areas or timing of demands and provide a means to analyze the impacts on system reliability and casts, as well as with a means to easily and effectively communicate the effect of modifying identified master plan elements to decision makers.

Javad Roostaei, PhD, PE, MCS

Senior Principal Engineer

Dr. Roostaei serves as Hazen's Director of Data Science, providing over 14 years of experience in data science, with a specialization in the water industry. He is an expert in statistics, machine learning, and cloud technologies.

Education

PhD, Civil and Environmental Engineering, Wayne State University, 2018

MSc, Computer Science, Wayne State University, 2018

MS, Civil Engineering, Shahid Beheshti University, Tehran, Iran, 2011

BS, Civil and Environmenal Engineering, Shahid Beheshti University, Tehran, Iran, 2008

Certification/License

Professional Engineer: NC

Microgeneration Certification Scheme Certified

Areas of Expertise

- Lead service line identification
- Machine learning and artificial intelligence model development
- Spatial data analytics
- Internet of things (IoT), cloud, and edge computing
- Azure cloud model deployment
- MATLAB

Experience

- 14 total years
- 4 years with Hazen

Lead and Copper Service Line Inventory, Los Angeles Department of Water and Power, CA

Lead Data Scientist. In a strategic partnership with the City of Los Angeles, Hazen worked on leverage machine learning in detecting the material composition of service lines within a vast dataset comprising 740,000 houses. Harnessing the power of 26,000 verified customer side material data points, the primary objective was to discern between galvanized and non-galvanized service lines, an essential binary classification given the ramifications of such material usage in household utilities. The modeling challenge was steeped in addressing the rare event modeling paradigm, especially with the low prevalence of lead. The team, led by Lead and Copper Rule Revisions (LCRR) experts, data scientist and GIS specialist, experimented with a variety of algorithms - Bayesian Network, XGBoost, and Random Forest, to hone in on the most predictive one. Preliminary findings indicated key variables like Property Use Type, Density of identified material types per Zip Code, Socio-Economic Data, and water network data as pivotal in shaping the predictive capacity of the model. Models achieved a recall of 65%, translating to a model accuracy nearly 6 times superior to random guessing. This data-driven approach not only holds the promise of reducing pipe inspections by 50-55% but also showcases the potential of refining accuracy as more data becomes accessible.

Phase 1: Lead Service Line (LSL) Replacement Plan and Inventory Assistance, Miami-Dade County Water and Sewer Department, FL

Lead Data Scientist. Miami-Dade County ranks among the largest public utilities in the United States, serving approximately 2.3 million residents. Hazen has partnered with the County to devise a comprehensive Lead Service Line (LSL) Inventory and Replacement Plan. As a pilot study, implemented advanced machine learning techniques for LSL identification. Utilizing the dataset provided, crafted a predictive model employing both XGBoost and Bayesian Network Models. This model is tailored to accurately estimate the probability of locations in the City of Miami's housing LSL, ensuring efficient resource allocation and targeted interventions.

Sewer Pipe Deterioration Predictive Model, Jefferson County, AL
Lead Data Scientist. A robust sewer pipe deterioration model was developed for Jefferson County's collection system, assessing over 86,000 pipes and leveraging data from 55,000 pipes inspected using CCTV. This model, ranking structural defects on a scale from 1 to 5, predicts which uninspected pipes are likely to show significant structural defects. Key features and achievements include enhanced data quality through data curation, creating better variables, and imputing missing values. Crucial features like pipe age, diameter, and length were identified as influencing a pipe's condition. The model boasts a predictive capability with an accuracy performance based on the ROC curve between 0.65 and 0.78, highlighting its reliability. It can predict deterioration scores for up to 25 years into the future by adjusting pipe age as an input variable. In real-world application, the model was applied to 6,000 newly inspected pipes in 2022, achieving a 75% accuracy rate. The model's effectiveness is maximized when combined with subject matter expertise for validation, underlining the synergy between machine learning tools and expert knowledge in addressing water infrastructure questions.

Experience Prior to Hazen

Water Lead Contaminations Modeling Using Blood Lead Data, Environmental Protection Agency, Wake County, NC
Machine Learning Developer and Spatial Data Analyst. The project involved more than 60,000 records of blood lead measurements in Wake County, NC. The goal was to evaluate water quality characteristics, water treatment and distribution networks, census data, and other spatial data to develop predictive models for areas that are more susceptible to lead contaminations. In this new approach, acquired new data set from different sources, performed data mining, and machine learning. The results were published as a machine-learned model and a paper that is under review. The model can quantify the influence of each variable on the goal variable of blood lead below 2µg/dL.

Baljit Sidhu

Principal Scientist

Ms. Sidhu has over 10 years of diverse technical and research experience in drinking water treatment. She has led multiple projects focusing on lead and copper control/treatment in drinking water.

Education

MS, Environmental Engineering, Old Dominion University, 2013

BS, Civil Engineering, Mumbai University, India, 2010

Areas of Expertise

- Lead service line replacement
- Water quality modeling
- Corrosion control treatment
- Environmental regulatory compliance
- Water quality treatability studies
- Iron and manganese treatment

Experience

- 10 total years
- 2 years with Hazen

Professional Activities

Water Research Foundation

Water for People

American Water Works Association

- Virginia Section

Virginia Water Environment Association

Lead and Copper Rule Revisions (LCRR) Compliance Assistance, WSSC Water, MD

Technical Lead. This is an ongoing Lead and Copper Rule Revision Compliance Assistance project for WSSC Water. Developing lead sampling plan and lead service line replacement. Specific tasks include, development of sampling plan and procedures SOP, evaluation of sampling results, providing potential strategies to mitigate lead exposure, preparation of lead service line replacement plan, and an RFP for lead service line (LSL) replacement work to be conducted by the contractor.

LCRR Compliance Plan, Town of Herndon, VA

Project Manager. The objective of the project was to provide a summary of the LCRR, describing the potential regulatory impacts of the LCRR on the Town, and discussing strategies for the Town to prepare for continued compliance with the LCRR regulatory changes. Specific tasks included review of historical LCR compliance data and sample site plan for the last 20 years, service line inventory records review, preparation of technical memorandum summarizing regulatory changes per the LCRR and identifying primary anticipated impacts affecting the Town, and providing technical guidance to the Town regarding service line inventory development, communication outreach, lead sampling (compliance and schools/childcare facilities), and funding for LSL inventory/replacement plans.

LCRR Compliance Support, City of Gainesville Department of Water Resources, GA

Project Engineer. Developed lead sampling protocol for schools and childcare facilities. Prepared an inventory of schools and childcare facilities in the City's service area using Georgia Department of Education and Georgia department of Early Care and Leaning websites. Evaluated number of samples the City needs to collect including costing for the laboratory analysis.

Experience Prior to Hazen

Full Lead Service Line Replacement Guidance (#4713), Water Research Foundation, USA and Canada

Assistant Project Manager. The project involved evaluating the effectiveness of whole-house high velocity flushing to reduce lead and other metal levels at the customer tap following a full lead service line replacement (FLSLR). The objective of the project was to provide guidance and reference material to water system staff to use when planning and implementing FLSLR. Developed sequential sampling and high velocity flushing protocol and instructional video for participating water systems to perform sampling before and after replacement as part of the study. Coordinated with 14 water systems across US and Canada for field studies at over 100 locations. Conducted research to provide guidance and information to water systems on recommended practices before and after full lead service line replacement to reduce or eliminate lead exposure from water. Co-authored peer reviewed WRF report on Full Lead Service Line Replacement Guidance.

Evaluation of Flushing to Reduce Lead Levels (#4584), Water Research Foundation, USA

Project Engineer. The project involved evaluating impact of high velocity flushing (HVF) inside households on lead levels in water samples collected from household taps across several locations in the US. The project focused on impact of HVF alone (without a disturbance such as a LSLR, HVF after partial LSLR, and HVF after FLSLR. This research developed the flushing protocol of flowing taps for 30 minutes which was later adopted in the AWWA Standard C810-17 Replacement and Flushing of Lead Service Lines. Key responsibilities included coordinating with water systems for field studies, statistical data analysis and finalizing findings in the peer reviewed published report – Evaluation of Flushing to Reduce Lead Levels.

Victoria Nystrom, PE

Principal Engineer

Ms. Nystrom is a member of the firm's Drinking Water Process group. She has extensive experience with projects associated with LCRR and corrosion control treatment.

Education

MS, Environmental Engineering, Virginia Tech, 2017

BS, Biological Systems Engineering, Virginia Tech, 2015

Certification/License

Professional Engineer: NY

Areas of Expertise

- Regulatory compliance
- Corrosion control treatment
- Drinking water quality
- Pilot and bench-scale studies

Experience

- 7 total years
- <1 year with Hazen

Professional Activities

American Water Works Association

- Inorganic Contaminants Research Committee Member
- M12 Simplified Procedures for Water Examination and M58 Internal Corrosion Control in Water Distribution Systems (revisions) Chapter and Co-Author

LCRR/LCRI Program Assistance, Town of Tonawanda, NY
Project Engineer. Supporting improvements to the Town's compliance program in advance of key deadlines for the US EPA's Lead and Copper Rule Revisions/Lead and Copper Rule Improvements (LCRR/LCRI). Tasks include the creation of a service line inventory for submission to the NYS-DOH leveraging the digitization of more than 60,000 records to extract relevant service line attributes. Development of a Lead Service Line (LSL) Replacement Plan to prioritize funding for underrepresented/underserved populations in the water system and align with anticipated capital budget amounts, development of public education materials to support water service line investigations in Town residences, and updating compliance sampling practices and health risks associated with lead. Hazen is also leading the development of web applications using the Town's Enterprise GIS software license to summarize various metrics associated with the compliance program, including customer survey responses, reduction of inventory unknowns, and inspections completed by Town staff.

Corrosion Control Treatment Program Pipe Loop Demonstration Study, Erie County Water Authority (ECWA), Buffalo, NY
Project Engineer. This study is being conducted to ensure compliance with LCRR and achieve a unified corrosion control approach with the City of Buffalo. Responsible for the efforts to develop a Pipe Loop Testing Work Plan, design and procure a Pipe Loop Rig System, and operation of the pilot. The University of Buffalo is assisting in maintaining the pipe loop and sampling collection and analysis. Washington University in St. Louis will conduct an off-site pipe loop study at their laboratory and conduct scale analysis of lead pipes from the Authority's system used in the pipe loop studies. Hazen is also providing assistance with the Authority's corrosion control program by performing a sequential sampling study and developing a Power BI Water Quality Dashboard for viewing data from routine distribution system monitoring data and LCR compliance monitoring data.

LCRR Compliance Program, City of Annapolis, MD
Project Engineer. The project involves assisting the City of Annapolis by performing an LCRR compliance gap analysis, generating a preliminary service line inventory, and developing an unknown service line verification plan to support compliance with US EPA and the Maryland Department of Environment LCRR requirements.

Corrosion Control Treatment Study, City of Richmond, VA
Project Engineer. The project involves assisting the City of Richmond to optimize corrosion control treatment to support compliance with the LCRR. The study will include the development of a corrosion control treatment (CCT) alternatives analysis through the evaluation of historical water quality data and scale analysis of lead service lines to understand the effectiveness of current CCT, development of pipe loop system design drawings and a pipe loop testing work plan that describes the operations and sampling of the pipe loops, and field operations and water quality sampling. Following completion of the pipe loop study, findings and recommendations will be documented in a final report.

Experience Prior to Hazen

LCRR Program Management, ECWA, Buffalo, NY
Deputy Project Manager. Managed four task leads as well as the development and implementation of a compliance program for the LCRR. The program covered aspects of the LCRR including LSL inventory, LSL replacement, school and childcare sampling, tap and water quality parameter monitoring, and public education and outreach.

LCRR Compliance Services, Philadelphia Water Department, PA
Deputy Project Manager. Managed the planning, development and implementation of a comprehensive compliance program for the LCRR. The program team included six subconsultants and over 10 internal staff, and covered all aspects of the LCRR.

Comprehensive Corrosion Control Study, Great Lakes Water Authority, Detroit, MI
Task Lead/Designer. Designed pipe loops rig representing distribution system materials found in member community systems supplied by the Authority to evaluate the effects of a change in corrosion control treatment (i.e., orthophosphate dose) on metals release and pipe integrity. Provide QA/QC support, field operations, and perform technical review of deliverables.

Rusty Nigro, PE

Principal Engineer

Ms. Nigro is a subject matter expert for lead and copper corrosion control treatment. Her specialties include drinking water treatment and distribution system water quality.

Education

MS, Civil Engineering, Virginia Tech, 2020

BS, Civil Enginering, Virginia Tech, 2019

Certification/License

Professional Engineer: VA

Areas of Expertise

- Water treatment
- Corrosion control treatment
- Wastewater treatment

Experience

- 4 total years
- 4 years with Hazen

Professional Activities

American Water Works Association

Water Environment Federation

Virginia Water Environment Association

Corrosion Control Pipe Loop Demonstration Study, Erie County Water Authority, NY

Assistant Engineer. This study is being conducted to ensure compliance with the Lead and Copper Rule Revisions (LCRR) and achieve a unified corrosion control approach with the City of Buffalo. Responsible for the efforts to develop a Pipe Loop Testing Work Plan, design and procure a Pipe Loop Rig System, and operation of the pilot. The University of Buffalo is assisting in maintaining the pipe loop and sampling collection and analysis. Washington University in St. Louis will conduct an off-site pipe loop study at their laboratory and conduct scale analysis of lead pipes from the Authority's system used in the pipe loop studies. Hazen is also providing assistance with the Authority's Corrosion Control Program by performing a Sequential Sampling study and developing a Power BI Water Quality Dashboard for viewing data from routine distribution system monitoring data and LCR compliance monitoring data.

LCRR Compliance Plan, City of Richmond, VA

Assistant Engineer. Developed a Compliance Plan outlining strategies and recommendations for the City to prepare for LCRR compliance. Compliance strategies were developed based on a gap analysis, which included a review of the City's current practices and historical compliance data. The Compliance Plan presented a series of proposed projects for the City to achieve LCRR compliance.

Service Line Inventory, City of Richmond, VA

Assistant Engineer. A GIS-based service line inventory is being developed to prepare the City for LCRR compliance. Responsibilities include documenting records review, coordinating GIS work, and reviewing field identification results. Results from ongoing field identifications will be used to build a machine learning model to provide a data-driven approach to assess the occurrence of lead service lines (LSLs) in the City's system.

LCRR Compliance Support, Davie County, NC

Assistant Engineer. Developed a preliminary service line inventory. The project included a review of historical records and a geospatial assessment of service line materials. Based on these analyses a preliminary ser-

vice line inventory was developed. In addition, Hazen developed recommendations for the County to continually update and maintain the inventory for LCRR compliance.

LSL Replacement Action Plan, Portsmouth, VA
Assistant Engineer. Developed an Action Plan to prepare the City for LCRR compliance. The project included reviewing the City's historical data and current practices. The Action Plan provides a framework to guide the City in developing an LSL inventory and LSL replacement program to address the presence of LSLs in the City's distribution system.

LCRR Compliance Plan, City of Richmond, VA
Assistant Engineer. Developed a Compliance Plan outlining strategies and recommendations for the City to prepare for LCRR compliance. Compliance strategies were developed based on a gap analysis which included a review of the City's current practices and historical compliance data. The Compliance Plan presented a series of proposed projects for the City to achieve LCRR compliance.

Phase 2 Corrosion Control Study, City of Mansfield, OH
Assistant Engineer. This study is being performed to investigate alternative corrosion control treatment strategies and proactively prepare for continued LCRR compliance. Bench-scale immersion testing was performed to evaluate phosphate-based corrosion inhibitors. Results from this testing, along with results from ongoing scale analysis, will be used to develop recommendations for an optimized corrosion control treatment approach.

Corrosion Control Study, City of Greensboro, NC
Assistant Engineer. This study is being performed to investigate potential impacts of CSMR on lead release in the distribution system and support LCRR compliance. Bench-scale jar testing is being performed to evaluate corrosion control treatment alternatives, while balancing holistic distribution system water quality objectives such as nitrification control and blending with interconnected water systems.

Rebecca Carmine-Shaw, PE

Associate

Ms. Shaw has applied for, secured, and overseen grant administration for more than $8 million in New York State Environmental Facilities Corporation and Department of Environmental Conservation funds for local communities in Western New York.

Education

BS, Civil Engineering, University of Buffalo, 2009

Certification/License

Professional Engineer: NY, CA

Areas of Expertise

- Funding
- Wastewater treatment
- Collection systems
- Water distribution
- Green Infrastructure
- Climate change risk analysis
- Permitting

Experience

- 13 total years
- 6 years with Hazen

Professional Activities

Water Environment Federation

New York Water Environment Association

- Asset Management Committee Member
- Western Chapter Board of Directors

American Water Works Association

- New York State Awards and Scholarships Committee Member

West Parish Water Treatment Plant, Springfield Water and Sewer Commission, Westfield, MA

Funding Lead. Completed a Massachusetts Drinking Water State Revolving Fund application in the amount of over $250 million in support of the new 65-mgd water treatment plant consisting of coagulation, flocculation, clarification with dissolved air flotation followed by filtration to improve treatment and reduce disinfection byproducts in the distribution system.

Orchard Street Water Treatment Plant, City of White Plains, NY

Funding Lead. Completed a New York State Water Infrastructure Improvement Program (WIIA) grant application in support of the design and construction of a new 2.5-mgd water treatment plant.

Bailey Arboretum Pond Restoration, Nassau County, NY

Funding Lead. Applied for New York State Water Quality Improvement Project (WQIA) funding in support of a project to improve water quality, stormwater buffers, and reduce pollutant loading in two ponds at a popular public arboretum in Nassau County.

Corrosion Control Pipe Loop Demonstration Study, Erie County Water Authority, NY

Task Manager. Responsible for the initial review of potential wastewater treatment impacts of orthophosphate as a corrosion inhibitor as part of the Authority's pipe loop demonstration study; determine if corrosion inhibitor may pose wastewater treatment concerns for Erie County Division of Sewerage Management; and prioritize any further steps to investigate wastewater impacts. The task consists of coordination with DSM to collect information on existing sewerage districts, WWTPs, total phosphorus (TP) limits, and current TP removal treatment processes.

Experience Prior to Hazen

Green Infrastructure Streetscape Improvements, City and Town of Lockport, NY

Project Manager. Responsible for the preparation of specifications, water quality volume calculations, drawings, cost estimate, and project schedule; as well as construction oversight and public engagement activities for green infrastructure practices along Pine, Washburn, and South Streets. The improvements were in accordance with the design and grant program requirements for the New York State Environmental Facilities Corporation's Green Innovation Grant Program.

Wastewater Treatment Plant UV Light Disinfection Improvements, City and Town of Lockport, NY

Project Manager. Responsible for the evaluation, design, and construction oversight of a UV light disinfection system for the Lockport Wastewater Treatment Plant, providing over 90-mgd of wastewater treatment for the City and Town of Lockport. The project includes preparation of specifications, hydraulic calculations, drawings, cost estimate, and schedule in accordance with the modified SPDES permit. Conducted interagency coordination with the New York State Department of Environmental Conservation (NYSDEC).

NYC Wastewater Treatment Plant Audits, New York City Department of Environmental Protection, NY

Project Engineer. Provided oversight and review of the City's environmental audits at 14 wastewater and four CSO facilities, with a focus on SPDES permit compliance as required by an Order on Consent between NYSDEC and NYCDEP.

Jeff Neale

Director of Communications

For 28 years, Mr. Neale has managed communications and outreach programs that have shaped the narrative for environmental projects, successfully reaching diverse target audiences with succinct messages distilled from complex, technical information.

Education

BA, Literature, American University, 1994

Areas of Expertise

- Communication and public outreach strategy
- Messaging and materials development
- Project management

Experience

- 28 total years
- 15 years with Hazen

LCRR Revisions Compliance Plan, WSSC Water, Laurel, MD
Public Outreach Lead. This programmatic evaluation assisted WSSC in developing a comprehensive Lead and Copper Rule Revision (LCRR) Compliance Program. Working collaboratively with numerous WSSC departments, an action plan was developed to provide a road map for the lead service line (LSL) inventory, LSL replacement plan, corrosion control treatment, and public outreach. A detailed program schedule and management approach were developed to ensure that tasks are completed in a timely manner and compliance requirements are met well in advance of the US EPA October 16, 2024 deadline.

Profile Sampling for Lead Customer Outreach, City of Buffalo, NY
Project Manager. Provided messaging and material development support for the City of Buffalo's industry-leading effort to optimize corrosion control far in excess of federal regulatory requirements. Worked with technical staff and graphic designers to develop appropriate messaging and outreach materials explaining key aspects of the program, the interactions that customers could expect with Buffalo Water sampling teams, and the schedule on which the work will progress.

Customer Outreach on Drinking Water Safety, Corpus Christi, TX
Project Manager. Provided messaging and creative direction for a series of brochures that detailed Corpus Christi's drinking water supply and treatment process, as well as the safety protocols in place to protect public health. Brochures were distributed at events and schools, in addition to being posted to the City's website.

CMOM Program, Jefferson County, AL
Public Outreach Task Leader. Supporting the Jefferson County Environmental Services Department's extensive capacity, management, operations, and maintenance (CMOM) Program, reaching affected communities and rate-payers with messaging and materials conveying the program's benefits and return on investment.

Integrated Water Management Program, New York City Department of Environmental Protection, New York, NY
Public Outreach Task Lead. Overseeing all outreach and communications efforts to affected communities and the general public as well as other institutional, governmental, and environmental stakeholders. Outreach efforts include working with technical teams to develop planning and messaging and with graphic designers to develop electronic and print materials intended to communicate value and win support for the paradigm shift to integrated water management.

Stakeholder Outreach for Water Resources Planning, Santa Fe, NM
Creative Director. Led development of two sets of printed materials explaining a range of projected water supply/demand scenarios, the history of water infrastructure investments the City has made to meet growing demand over time, and a project intended to provide additional supply and resiliency to the Santa Fe system. Both sets communicated complex information visually using infographics and photos to two different target audiences (one being residents, the other City Council members, the Mayor's office, and other stakeholders).

Experience Prior to Hazen

National Lead Poisoning Awareness Campaign, United States EPA, Washington, DC
Creative Director. To help achieve the campaign goal of raising awareness of the dangers of lead poisoning and the three primary means of ingestion within high-risk audiences, worked with technical experts to develop language that distilled esoteric health and scientific information into consumer messages. Created the "Runs Better Unleaded" tagline and led the development of materials including brochures, fact sheets, and a website as well as transit, outdoor, and movie theatre advertising. The award-winning public education campaign has been used by the EPA for more than 20 years and has been translated into more than 40 languages.

Appendix C

Required Forms

APPENDIX A, FORM No. 1

ACKNOWLEDGEMENT OF ADDENDA

RFP TITLE: Lead Service Lateral Engineering Consulting Services No. 2024-04
(Write the RFP No. and Title on the Line Above)

DIRECTIONS: Complete Part I or Part II, whichever is applicable.

PART I: LISTED BELOW ARE THE DATES OF ISSUE FOR EACH ADDENDUM RECEIVED IN CONNECTION WITH THIS RFP:

ADDENDUM # 1: DATED _____, 20__

ADDENDUM # 2: DATED _____, 20__

ADDENDUM # 3: DATED _____, 20__

ADDENDUM # 4: DATED _____, 20__

ADDENDUM # 5: DATED _____, 20__

ADDENDUM # 6: DATED _____, 20__

PART II: MRD INITIAL HERE IF NO ADDENDUM WAS RECEIVED IN CONNECTION WITH THIS RFP INITIAL HERE

DATE: 09/28/2024

PROPOSER (SIGNATURE): _____

PROPOSER (NAME): Mark Lenz, PE

PROPOSER (FIRM): Hazen and Sawyer, DPC

APPENDIX A, FORM No. 2

CERTIFICATE OF NON-COLLUSION

Pursuant to New York State Public Authorities Law, Article 9, Title 4, Section 2878, the undersigned proposer hereby subscribes and affirms as true, under the penalties of perjury, the following statement of non-collusion:

By submission of this proposal, each proposer and each person signing on behalf of any proposer certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his/her knowledge and belief:

(1) The prices in this proposal have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other proposer or with any competitor;
(2) Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the proposer and will not knowingly be disclosed by the proposer prior to opening, directly or indirectly, to any other proposer or to any competitor; and,
(3) No attempt has been made or will be made by the proposer to induce any other person, partnership, or corporation to submit or not to submit a proposal for the purpose of restricting competition.

DATE: 08/29/2024

PROPOSER (SIGNATURE): _____

PROPOSER (NAME): Mark Lenz, PE

PROPOSER (FIRM): HAZEN AND SAWYER, DPC

STATE OF New York)
) ss.:
COUNTY OF Erie)

On the 28th day of August, 2024, before me, the undersigned, a Notary Public in and for said state, personally appeared MARK R LENZ as a representative of HAZEN AND SAWYER, DPC, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the entity on behalf of which the individual acted executed the instrument.

Nancy E Clark
Notary Public

NANCY E. CLARK
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01CL6308963
Qualified in ERIE County
Commission Expires AUGUST 04, 2026

APPENDIX A, FORM No. 3

NEW YORK STATE FINANCE LAW SECTIONS 139-j AND 139-k ("LOBBYING LAW") – DISCLOSURE STATEMENT

General Information

All procurements by the Niagara Falls Water Board ("NFWB") in excess of $15,000 annually, are subject to New York State's State Finance Law Sections 139-j and 139-k, effective January 1, 2006 ("Lobbying Law").

Pursuant to the Lobbying Law, all "contacts" (defined as oral, written or electronic communications with the NFWB intended to influence a procurement) during a procurement - from the earliest notice of intent to solicit bids/proposals through final award and approval - must be made with one or more designated Point(s) of Contact only. Exceptions to this rule include written questions during the bid/proposal process, communications with regard to protests, contract negotiations, and RFP conference participation. Nothing in the Lobbying Law inhibits any rights to make an appeal, protest, or complaint under existing administrative or judicial procedures.

Violations of the policy regarding permissible contacts must be reported to the appropriate NFWB officer and investigated accordingly. The first violation may result in a determination of non-responsibility and ineligibility for award to the violator and its subsidiaries, affiliates and related entities. The penalty for a second violation within four (4) years is ineligibility for bidding/proposing on a procurement and/or ineligibility from being awarded any contract for a period of four (4) years. The NFWB will notify the New York State Office of General Services ("OGS") of any determinations of non-responsibility or debarments due to violations of the Lobbying Law. Violations found to be "knowing and willful" must be reported to the NFWB Executive Director and OGS.

Moreover, the statutes require the NFWB to obtain certain affirmations and certifications from bidders and proposers. This Disclosure Statement contains the forms with which offerors are required to comply, together with additional information and instructions.

Instructions

New York State Finance Law §139-k(2) obligates the NFWB to obtain specific information regarding prior non-responsibility determinations. In accordance with New York State Finance Law §139-k, an offerer must be asked to disclose whether there has been a finding of non-responsibility made within the previous four (4) years by any governmental entity due to: (a) a violation of New York State Finance Law §139-j or (b) the intentional provision of false or incomplete information to a governmental entity.

As part of its responsibility determination, New York State Finance Law §139-k(3) mandates consideration of whether an offerer fails to timely disclose accurate or complete information regarding the above non-responsibility determination. In accordance with law, no procurement contract shall be awarded to any offerer that fails to timely disclose accurate or complete information under this section, unless the factual elements of the limited waiver provision can be satisfied on the written record.

Disclosure of Prior Non-Responsibility Determinations

Name of Bidder/Proposer: Hazen and Sawyer, DPC

Address: 1 Seneca Street, Suite 2875, Buffalo, NY 14203

Name and Title of Person Submitting this Form: Mark Lenz, PE/Vice President

Has any governmental entity[1] made a finding of non-responsibility regarding the Bidder/Proposer in the previous four years?

____ **Yes** _X_ **No**

If yes: Was the basis for the finding of the Bidder's/Proposer's non-responsibility due to a violation of State Finance Law §139-j?

____ **Yes** ____ **No**

Was the basis for the finding of Bidder's/Proposer's non-responsibility due to the intentional provision of false or incomplete information to a governmental entity?

____ **Yes** ____ **No**

If yes to any of the above questions, provide details regarding the finding of non-responsibility below:

Governmental Entity: _____

Year of Finding of Non-responsibility: _____

Basis of Finding of Non-Responsibility (attach additional pages if necessary): _____

Has any governmental entity terminated or withheld a procurement contract with the Bidder/ Proposer due to the intentional provision of false or incomplete information?

____ Yes _X_ No

If yes, provide details regarding the termination/withholding below:

Governmental Entity: _____

Year of Termination/Withholding:_____

Basis for Termination/Withholding (attach additional pages if necessary):

NOTICE OF NFWB'S RIGHT TO TERMINATE

The NFWB reserves the right to terminate a Contract (including any lease, license, entry permit, or sale documents) in the event it is found that the certification filed by the Proposer, in accordance with New York State Finance Law §139-k, was intentionally false or intentionally incomplete. Upon such finding, the NFWB may exercise its termination right by providing written notification to the Bidder/Proposer in accordance with the written notification terms of the Contract.

Proposer's Affirmation and Certification

By signing below, the Proposer:

a) Affirms that the Proposer understands and agrees to comply with the policy regarding permissible contacts in accordance with New York State Finance Law Sections 139-j and 139-k.

b) Certifies that all information provided to the NFWB with respect to New York State Finance Law §139-j and §139-k is complete, true and accurate.

DATE: 08/28/2024

PROPOSER (SIGNATURE): _____

PROPOSER (NAME): Mark Lenz, PE

PROPOSER (FIRM): Hazen and Sawyer, DPC

STATE OF New York)
) ss.:
COUNTY OF Erie)

On the 28th day of August, 2024, before me, the undersigned, a Notary Public in and for said state, personally appeared MARK R LENZ as a representative of HAZEN AND SAWYER, DPC, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the entity on behalf of which the individual acted executed the instrument.

NANCY E. CLARK
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01CL6308963
Qualified in ERIE County
Commission Expires AUGUST 04, 2026

_____
Notary Public

APPENDIX A, FORM No. 4

EQUAL EMPLOYMENT OPPORTUNITY ("EEO")
POLICY STATEMENT AND AGREEMENT

Proposer hereby agrees to the following EEO policy with respect to its work on any contract awarded in connection with this RFP:

a) This organization will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability or marital status, will undertake or continue existing programs of affirmative action to ensure that minority group members are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on Niagara Falls Water Board ("Water Board") contracts.
b) This organization shall state in all solicitations or advertisements for employees that in the performance of the Water Board contract all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, disability or marital status.
c) At the request of the Water Board, this organization shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union, or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of this organization's obligations herein.
d) This organization shall comply with the provisions of the Human Rights Law, all other State and Federal statutory and constitutional non-discrimination provisions. Proposer and subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, pregnancy or pregnancy-related conditions, gender identity, familial status, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.
e) This organization will include the provisions of section (a) through (d) of this agreement in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each subcontractor as to work in connection with the Water Board contract.

ACCEPTED AND AGREED:

DATE: 08/28/2024

PROPOSER (SIGNATURE): _____

PROPOSER (NAME): Mark Lenz, PE

PROPOSER (FIRM): Hazen and Sawyer, DPC

APPENDIX A, FORM No. 5

STATEMENT ON SEXUAL HARASSMENT
PURSUANT TO STATE FINANCE LAW § 139-l

By submission of this proposal, proposer(s) and each person signing on behalf of any proposer certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, under penalty of perjury, that the proposer has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of section two hundred one-g of the labor law.

DATE: 08/28/2024

PROPOSER (SIGNATURE): _____

PROPOSER (NAME): Mark Lenz, PE

PROPOSER (FIRM): Hazen and Sawyer, DPC

STATE OF New York)
) ss.:
COUNTY OF Erie)

On the 28th day of August, 2024, before me, the undersigned, a Notary Public in and for said state, personally appeared MARK R LENZ as a representative of HAZEN AND SAWYER, DPC, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the entity on behalf of which the individual acted executed the instrument.

NANCY E. CLARK
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01CL6308963
Qualified in ERIE County
Commission Expires AUGUST 04, 2026

Nancy E Clark
Notary Public

APPENDIX A, FORM No. 6

REQUEST FOR PROPOSALS
ACKNOWLEDGEMENT AND CERTIFICATION

As a duly-authorized representative of the proposer indicated below, I hereby acknowledge that by submitting a proposal in connection with

Lead Service Lateral Engineering Consulting Services No. 2024-04,
(write RFP Number and Title)

proposer has made a firm offer and agrees to be bound by its terms. Proposer has carefully read the RFP and all addenda, and in submitting this proposal acknowledges proposer understands and agrees to be bound by the requirements set forth in the RFP, except as explicitly stated on a separate sheet attached to this proposal and entitled "Exceptions." Proposer agrees and understands that the terms and conditions set forth in the RFP addenda shall be incorporated into any contract or agreement awarded in connection with this RFP, and agrees to be bound by those terms and conditions.

I recognize that all information submitted is for the express purpose of inducing the Water Board to enter a contract with the submitting business entity. I affirm, under the penalties of perjury, that to the best of my knowledge the information contained in the proposal is full, complete, and truthful.

DATE: 08/28/2024

PROPOSER (SIGNATURE): _____

PROPOSER (NAME): Mark Lenz, PE

PROPOSER (FIRM): Hazen and Sawyer, DPC

STATE OF New York)
COUNTY OF Erie) ss.:

On the 28th day of August, 2024, before me, the undersigned, a Notary Public in and for said state, personally appeared MARK R LENZ as a representative of HAZEN AND SAWYER, DPC, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the entity on behalf of which the individual acted executed the instrument.

Nancy E Clark
Notary Public

NANCY E. CLARK
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01CL6308963
Qualified in ERIE County
Commission Expires AUGUST 04, 2026

Appendix D

Requested Exemptions to Contract Terms

Requested Exemptions Contract Terms

Hazen has reviewed the Niagara Falls Water Board's standard terms, conditions, and requirements as provided in Appendix A of the Request for Proposals. Requested revisions are identified in orange.

M. Indemnification and Waiver of Subrogation

The successful proposer, to the full extent permissible by New York law, must agree to indemnify and hold the Niagara Falls Water Board, its Directors, Officers, and Employees harmless against all loss, cost, or damage, on account of injury to person or damage to property as a result of any **negligent** action or inaction of the proposer or its representatives or agents or subcontractors in performance of the contract and against all fines, penalties any other losses which the Niagara Falls Water Board shall be obliged to pay or incur in connection with the **negligent** performance of the work under the contract.

1020-021

Appendix E

Financial and Organizational Responsibility

Financial and Organizational Responsibility

Financial Responsibility

A letter from the Executive Director of Chase Bank confirming Hazen's financial stability is included at the end of this section.

Organizational Responsibility

Per Section A, Statement of Qualifications in Appendix A of the RFP, the following identifies information about Hazen's business history.

1. Any other names under which proposer has done business in the past 10 years; **N/A**
2. List all subsidiary and parent companies; **N/A**
3. State whether proposer ever has been:
   - Debarred or suspended by any government entity from entering contracts with it; **No**
   - Found not responsible by any government entity; **No**
   - Declared in default or terminated for cause from any contract, or had any contract cancelled for cause; or Required to pay liquidated damages on a contract. **No**
4. State whether proposer has filed for bankruptcy or been the subject of an involuntary bankruptcy proceeding; and **No**
5. State whether proposer has been a party to any legal action or government investigation related to proposer's business practices, or alleging that any of proposer's agents or employees committed any act of fraud, collusion, bid rigging, price fixing, or bribery. If proposer, any of proposer's principals, or any of proposer's agents has pleaded guilty or entered into a consent order in connection with respect to any of these, provide details. **No**

CHASE

Gordon L. Smith
Executive Director

February 8, 2024

Douglas S. Williamson, PE
Director of Technical & Regulatory Services
Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, NY 14304

Ladies and Gentlemen:

We are pleased to provide the following information regarding our client, Hazen and Sawyer, D.P.C. Hazen and Sawyer, D.P.C. was formed as an engineering firm specializing in the design and construction supervision of water supply, sewerage and industrial waste systems.

Hazen and Sawyer has maintained a relationship with our bank since 1952. Balances during the past twelve months have averaged in the low eight figures. We extend to the company a line of credit in the low eight figures. Additionally, the company has standby letter of credit facilities outstanding with JPMorgan Chase Bank. The account has been handled in a fully satisfactory manner.

The information in this letter is provided as an accommodation to you. This letter and any information provided in connection therewith are furnished on the condition that they are strictly confidential, that no liability or responsibility whatsoever in connection therewith shall attach to **Chase** or any of its officers, employees, or agents, that this letter makes no representations regarding the general condition of the account holder named herein, their management, or their future ability to meet their obligations.

If you have any questions, please do not hesitate to contact me: **212-270-1810.**

Sincerely,

Gordon Smith

J.P. Morgan Securities, LLC | 383 Madison Avenue, 22nd Floor, New York, NY 10179
T: 212 270 1810 | gordon.l.smith@chase.com | chase.com/commercialbanking

1020-021

Hazen

Hazen and Sawyer
1 Seneca Street, Suite 2875 • Buffalo, NY 14203

NIAGARA FALLS WATER BOARD RESOLUTION # 2024-09-013

ANNUAL RENEWAL OF NEW WORLD SOFTWARE LICENSES

WHEREAS, the Niagara Falls Water Board ("Water Board") utilizes Tyler Technologies' New World Enterprise Resource Planning ("ERP") system for certain financial, payroll, human resources, decision support, and utility management purposes; and

WHEREAS, invoices for renewal of the ERP Software as a Services ("SaaS") licenses for New World for the period from November 1, 2024 to October 31, 2025, plus the cost of a custom interface the Water Board uses to import meter reads, total $125,530.99; and

WHEREAS, this procurement is not subject to competitive bidding requirements under the Water Board's procurement policy as the New World ERP is a proprietary system for which Tyler Technologies is the sole source;

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Water Board hereby authorizes payment to Tyler Technologies of $125,530.99 for renewal of New World SaaS licenses.

Water Board Personnel Responsible for Implementation of this Resolution:
Executive Director

Water Board Budget Line or Capital Plan Item with Funds for this Resolution:
FA.8150.0000.0446.008, Software Maint/Licenses

On September 23, 2024, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	**No**	**Abstain**	**Absent**
Board Member Dean	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Kimble	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Larkin	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Board Member Sirianni	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Chairman Forster	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Signed By:

_____
Nicholas J. Forster, Chairman

Vote Witnessed By:

_____
Sean W. Costello, Secretary to Board

tyler technologies

Remittance:
Tyler Technologies, Inc
(FEIN 75-2303920)
P.O. Box 203556
Dallas, TX 75320-3556

Invoice

Invoice No	Date	Page
045-484236	10/01/2024	1 of 1

Questions:
Tyler Technologies- ERP & Schools
Phone: 1-800-772-2260 Press 2, then 1
Email: ar@tylertech.com

Bill To NIAGARA FALLS WATER BOARD, NY
5815 BUFFALO AVE
NIAGARA FALLS, NY 14304-3832

Ship To NIAGARA FALLS WATER BOARD, NY
5815 BUFFALO AVE
NIAGARA FALLS, NY 14304-3832

Cust No.-BillTo-ShipTo	Ord No	PO Number	Currency	Terms	Due Date
50125 - 200 - 200	213858		USD	NET30	10/31/2024

Contract Date	Description	Units	Rate	Extended Price
Contract No.: Niagara Falls, NY				
01/Nov/2020	SaaS APPLICATION SERVICES - Financial Management Base Suite	1	28,082.80	28,082.80
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Project Accounting	1	1,007.19	1,007.19
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Purchasing Base	1	21,251.46	21,251.46
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Human Resources Mgt. Base Suite	1	6,071.09	6,071.09
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Position Control	1	9,866.72	9,866.72
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Position Budgeting	1	6,071.11	6,071.11
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Decision Support Base Datamart	1	0.00	0.00
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Utilities Analytics	1	11,384.53	11,384.53
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Utility Billing (Water/Sewer Base)	1	30,364.76	30,364.76
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			
01/Nov/2020	SaaS APPLICATION SERVICES - Auto Meter Interface	1	6,831.33	6,831.33
	Cycle: Start: 01/Nov/2024, End: 31/Oct/2025			

Subtotal	120,930.99
Sales Tax	$0.00
Invoice Total	120,930.99

tyler technologies

Remittance:
Tyler Technologies, Inc
(FEIN 75-2303920)
P.O. Box 203556
Dallas, TX 75320-3556

Invoice

Invoice No	Date	Page
045-460690	03/26/2024	1 of 1

Questions:
Tyler Technologies - ERP & Schools
Phone: 1-800-772-2260 Press 2, then 1
Email: ar@tylertech.com

Bill To: NIAGARA FALLS WATER BOARD, NY
5815 BUFFALO AVE
NIAGARA FALLS, NY 14304-3832

Ship To: NIAGARA FALLS WATER BOARD, NY
5815 BUFFALO AVE
NIAGARA FALLS, NY 14304-3832

Cust No.-BillTo-ShipTo	Ord No	PO Number	Currency	Terms	Due Date
50125 - 200 - 200	204172	RFS 10675753	USD	NET30	04/25/2024

Date	Description	Units	Rate	Extended Price
	CUSTOM INTERFACES	1	4,600.00	4,600.00
	New World Services: Import Meter Reads			

****ATTENTION****
Order your checks and forms from Tyler Business Forms at 877-749-2090 or tylerbusinessforms.com to guarantee 100% compliance with your software.

Subtotal	4,600.00
Sales Tax	$0.00
Invoice Total	4,600.00