



OFFICIAL NOTICE AND AGENDA
of a meeting of a City Board, Commission, Department
Committee, Agency, Corporation, Quasi-Municipal
Corporation, or Sub-unit thereof.

A Meeting of Wausau Water Works Commission will be held in the
Council Chambers, 1st Floor City Hall, Wausau, WI 54403 at 1:30 p.m. on
Tuesday, June 7th, 2022.

Members: Katie Rosenberg (President), Dawn Herbst, Jim Force, Joe Gehin, John Robinson

AGENDA

1. Approve Minutes of May 3rd 2022 Meeting.
2. Director's Report on Utility Operations
 - Drinking Water Treatment Facility Construction Update- Becher Hoppe
 - Update on Lead Service Line (LSL) Replacement Plan
 - Update on Corrosion Control Treatment (CCT) Study
 - Locates
 - Backed up on dig jobs
 - Hydrant Flushing
 - PSC 2021 Water Utility Annual Report
 - Rain Barrel Pick Up- June 7th & June 8th 2022
 - Wastewater Treatment Facility Construction Update- Donohue
 - Wastewater Plant Operations Technician & 2 Collection Systems Technician (Sewer Maintainer)- still Vacant
 - Wastewater- Collection Systems Technician (Sewer Maintainer)- 3rd attempt advertised: 1 accepted position- awaiting an official start date, 1 still Vacant- ongoing advertisement of position through Wisconsin Rural Water Association (WRWA) and Wisconsin Wastewater Operators Association (WWOA) website
 - Wastewater Plant Operations Technician job description finalized- currently advertised with closing date of 6/10/2022- also advertised through WRWA & WWOA websites
 - Wastewater: Summer Maintenance Mowing/Lawn care will be Contracted Out with Baumann using City Contract
 - Wastewater Plant construction continues
3. Presentation, Discussion and Update on the Pilot Study Results (Donohue).
4. Discussion and Possible Action on the Approval of the 2021 Compliance Maintenance Annual Report (CMAR)- Wastewater.
5. Discussion on Employee Staffing, Recruiting/Retention and Wages.

Adjourn.

**Next meeting scheduled for July 5th 2022 at 1:30 P.M.*

Signed by: /s/ Katie Rosenberg, Mayor
Presiding Officer or Designee

THIS NOTICE POSTED AT CITY HALL AND EMAILED TO CITY PAGES AND DAILY HERALD: June 3rd, 2022 at 2:50 p.m.

This meeting is being held in person. Members of the public who do not wish to appear in person may view the meeting live over the internet, cable TV, Channel 981, and a video is available in its entirety and can be accessed at <https://tinyurl.com/wausaucitycouncil>. Any person wishing to offer public comment not appearing in person may e-mail gina.vang@ci.wausau.wi.us with "Water Commission Public Comment" in the subject line prior to the meeting start. All public comment, either by email or in person, will be limited to items on the agenda at this time. The messages related to agenda items received prior to the start of the meeting will be provided to the Chair.

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 (ADA), the City of Wausau will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs or activities. If you need assistance or reasonable accommodations in participating in this meeting or event due to a disability as defined under the ADA, please call the ADA Coordinator at (715) 261-6590 or ADAServices@ci.wausau.wi.us to discuss your accessibility needs. We ask your request be provided a minimum of 72 hours before the scheduled event or meeting. If a request is made less than 72 hours before the event the City of Wausau will make a good faith effort to accommodate your request.



Minutes of May 3rd, 2022

A meeting of the Wausau Water Works Commission was called to order at 1:37 p.m. in City Hall on Tuesday, May 3rd, 2022. In compliance with Wisconsin Statutes, this meeting was posted and receipted for by the Wausau Daily Herald on April 28, 2022.

Members Present: Commissioners Herbst, Gehin, Force, Robinson

Others Present: Becky McElhaney, Eric Lindman, Scott Boers, Ben Brooks, Anne Jacobson, Toni Vanderboom, Stephen Opatik/ Becher-Hoppe, Susan Wojtkiewicz/Donohue, Evan Thomas/Wood, Via WebEx: Andrew Dow/Donohue, Eric Broce/Wood, Bill Malyk/Wood,

1) Approve Minutes of April 6th and 14th 2022 Meeting.

Robinson motioned to approve minutes from April 6th & 14th Commission Meeting.

Seconded by Herbst.

Motion carried 4-0.

2) Director's Report on Utility Operations.

Gehin questioned changes in the pump run time after cleaning the Industrial Park force main, if the launching equipment was purchased (Wastewater side) and if we could reach out to the previous poll workers to assist with the summer aide positions that remain unfilled?

Brooks replied the pressures have gone down, launching equipment was purchased.

Lindman replied we could reach out to Toni for those individuals but we have to keep in mind that there is labor involved.

Director's Report Placed on File.

3) Discussion and Possible Action Related to Staffing Shortages and Hiring Challenges.

Lindman began that it has been challenging- nationally everything has been going up and paychecks have been going down. City itself is not keeping up with wages and rising costs. The City's most important asset is its employees and second are the water and sewer facilities. Not properly maintaining or having the staff to maintain these facilities puts significant liabilities on the city and puts the facilities in jeopardy. We may become fully staffed this year, but we have a lot of training to do, we've brought requirements down to get people through the door but anyone we hire needs to get the proper training. New employees cannot be on call right away and those who require a CDL still need the training.

Gehin commented on creating a task force because it would be sad if we had no employees.

Brooks commented on the supporting staff in the audience today on what they could be making elsewhere, they are dedicated, show up to work daily, and love what they do and we are their voice and Gehin's idea of task force is great, I would second that.

Boers commented that our staff are experienced, and they are the reason we could lower our standards to bring people through that door to train them to do the work that we do without having the high cost of wages. We have to bring our wages up because if we are backed into a

corner where a lot of these key people leave, we will not have anyone here to train. The gentlemen in the back can both make \$15/hour more just by walking out. Most people are going through schooling for electrical/mechanical or engineering degrees and would not want to come work for the City for \$22/hour. We can't buy our way out of the hole, as Robinson quoted, but we need to at least bring up our wages to be competitive.

No Action Taken.

4) Presentation and Update on the Progress and Information to Date Regarding the PFAS Pilot Study.

Wojtkiewicz began the progress update from the report in the packet. Equipment is operating as anticipated and are seeing reduction in PFAS numbers, but Dow would be presenting in detail.

Dow presented with slides that can be found in the packet under Wausau Water Works Commission calendar under See Packet starting at page 62.

No Action Taken.

5) Discussion and Possible Action on a Scope of Services and Necessary Budget Modification for Hiring Wood Environmental & Infrastructure, Inc.

Robinson moved to authorize the budget not to exceed \$83,343 for Wood and be appraised on a regular basis of where we are in the status to the tasks. Seconded by Gehin.

Motion carried 4-0.

6) Discussion and Possible Action on a Reimbursement Resolution for Expenditure of Funds Related to PFAS Engineering and Investigation Through the WDNR Safe Drinking Water Loan Program.

Gehin moved to approve the resolution for expenditures of Funds related to PFAS Engineering and Investigation through the WDNR safe drinking water loan program. Seconded by Robinson.

Motion carried 4-0.

7) Discussion and Possible Action on a Resolution Designating an Authorized Representative to File for Financial Assistance from the State of WI Environmental Improvement Fund.

Robinson moved to designate an authorized representative (City's Mayor) to file for financial assistance from the State of Wisconsin Environmental Improvement Fund. Seconded by Herbst.

Motion carried 4-0.

8) Discussion and Possible Action on a Budget Modification and Setting a Budget Amount for Communication Services from Mueller Communications.

Force moved to cap the amount at \$20,000 for communication services from Mueller communications. Seconded by Gehin.

Motion carried 4-0.

9) Adjourn.

Motion to adjourn by Robinson. Seconded by Herbst.

Link to view meeting in its entirety: <https://tinyurl.com/wausaucitycouncil>

Gina Vang, Recording Secretary

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MEMORANDUM

TO: President Rosenberg
Commissioner Herbst
Commissioner Force
Commissioner Gehin
Commissioner Robinson

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

SUBJECT: Director's Report – May 2022

WATER DIVISION

1. Drinking Water Treatment Facility Construction Update (Becher Hoppe): See Attached.
2. Update on LSL Replacement Plan. (See Attached Map). The City has paid out in grant funds \$111,589.00 to date for Private LSL Replacements. Several more residents have shown interest in the program. There is \$338,411.00 still available for the program this year.

Staff has also been working with CDM Smith/ Clark Dietz on the Lead Service Line Replacement Plan. We have completed a workshop in which material inventory was reviewed, replacement targets discussed, funding options reviewed, and prioritization strategies considered. A prioritization map (attached) has been created using data factors including population under 5, environmental justice areas, income, and water usage. Initial inventory review has revealed some gaps in the current inventory. A meeting is being scheduled to outline how the inventory will need to be developed and address the identified gaps.

3. Our Corrosion Control Treatment Optimization Study is underway. Staff, along with CDM Smith/Clark Dietz have met with DNR, and had a workshop outlining priorities for the project. CDM Smith has begun the information review process, designing the lead line loop studies and equipment and working with staff to get some lead harvested for the loop and scale studies. Staff will be identifying sites and conducting sequential sampling soon.

4. Staff completed 1851 locates in the month of May.
5. Staff is getting backed up on dig jobs. Currently we have 33 lead services that should be renewed on the public side due to homeowner projects and another 22 assorted digs that should be completed.
6. Hydrant flushing was completed in May. During the two-week period from May 16th to the 27th staff flushed over 1660 hydrants.
7. PSC 2021 Water Utility Annual Report: See Attached.
8. Rain Barrel Pick Up- June 7th & June 8th 2022

WASTEWATER DIVISION

1. The Wastewater Treatment Plant is operating well and is producing a quality effluent discharge.
2. Positions within the department continue to be vacant. One position for the Wastewater Plant Operations Technician, and two positions for the Collection Systems Technician (Sewer Maintainer). Hiring and training of new staff continues to be a challenge for the utility. These positions require in depth knowledge of complex equipment being used and it takes a great amount of time to train to a level that any new staff can operate with confidence.
3. Collection System Technician (Sewer Maintainer): The third attempt of advertising closed April 29, 2022 and two qualified candidates were selected to interview. One of the candidates accepted the position and awaiting on an official start date. Advertising for the vacant position is ongoing and currently being advertised on the (WRWA) Wisconsin Rural Water Association website and (WWOA) Wisconsin Wastewater Operators Association website in hopes to capture a larger more professional audience.
4. Wastewater Plant Operations Technician requisition form and job description have been finalized and currently being advertised. The initial closing date for advertising is scheduled for June 10, 2022. Advertising for the vacant position is ongoing and currently being advertised on the (WRWA) Wisconsin Rural Water Association website and (WWOA) Wisconsin Wastewater Operators Association website in hopes to capture a larger more professional audience.
5. Summer Aide positions: No applicants received therefore Summer mowing duties have been outsourced for the 2022 season.
6. Plant construction continues to progress with new equipment start-ups weekly.

Wausau Drinking Water Treatment Facility - Project Status

June 1, 2022

Drinking Water Treatment Facility

The focus of the work is completing building finishes, continuing electrical/control check-outs, and equipment startups.

Contractors continue to work on pipe flushing and performance testing. Dry start-ups of treatment equipment have begun, and wet start-ups (operation while the tanks are filled with water) will follow raw water main performance testing.

Contractors continue to check communication circuits between all instruments, controls, and equipment (I/O testing). After I/O testing is complete, the control software will be loaded for initial check-out and testing. That process will take several months and is concurrent to equipment start-up.

The removal and replacement of the prime coat on flanged ductile iron fittings is complete. The sandblasting sub-contractor is finishing up cleaning and painting sub-contractor will complete the topcoats in June. This will allow contractors to begin flushing and pressure test process piping inside the plant.

Overall, the contractor is planning to have equipment startups completed in June / early July and begin System Demonstrations in mid-July. The new treatment facility is divided into 20 distinct systems; for example, natural draft aeration equipment, settled solids pumping, high service pumping, etc. During systems demonstrations the contractor must demonstrate the operation and performance of each system for 7 consecutive days without significant interruption.

Administration Building and Garage

The administration building and garage are on schedule for mid-summer completion. Flooring is complete, doors are installed, contractors completing final finishings and will begin commissioning of building systems. Furniture is scheduled to begin arriving in June.

Well House Improvements

Well House improvements are approximately 50% complete. As noted previously, the city is taking advantage of the down time to have a contractor remove and rehabilitate well pumps at several locations.

Offsite Utility Modifications

Contractors continue to complete off-site water main changes in the area south of the plant and installation of a section of new water main near the existing drinking water treatment facility.

Completed Pipe Coatings



Interior Mechanical Work and Chemical Feed Lines



Administration Building Roofing



Curb and Gutter at the Administration Building



Water Main Connections at Schofield Park



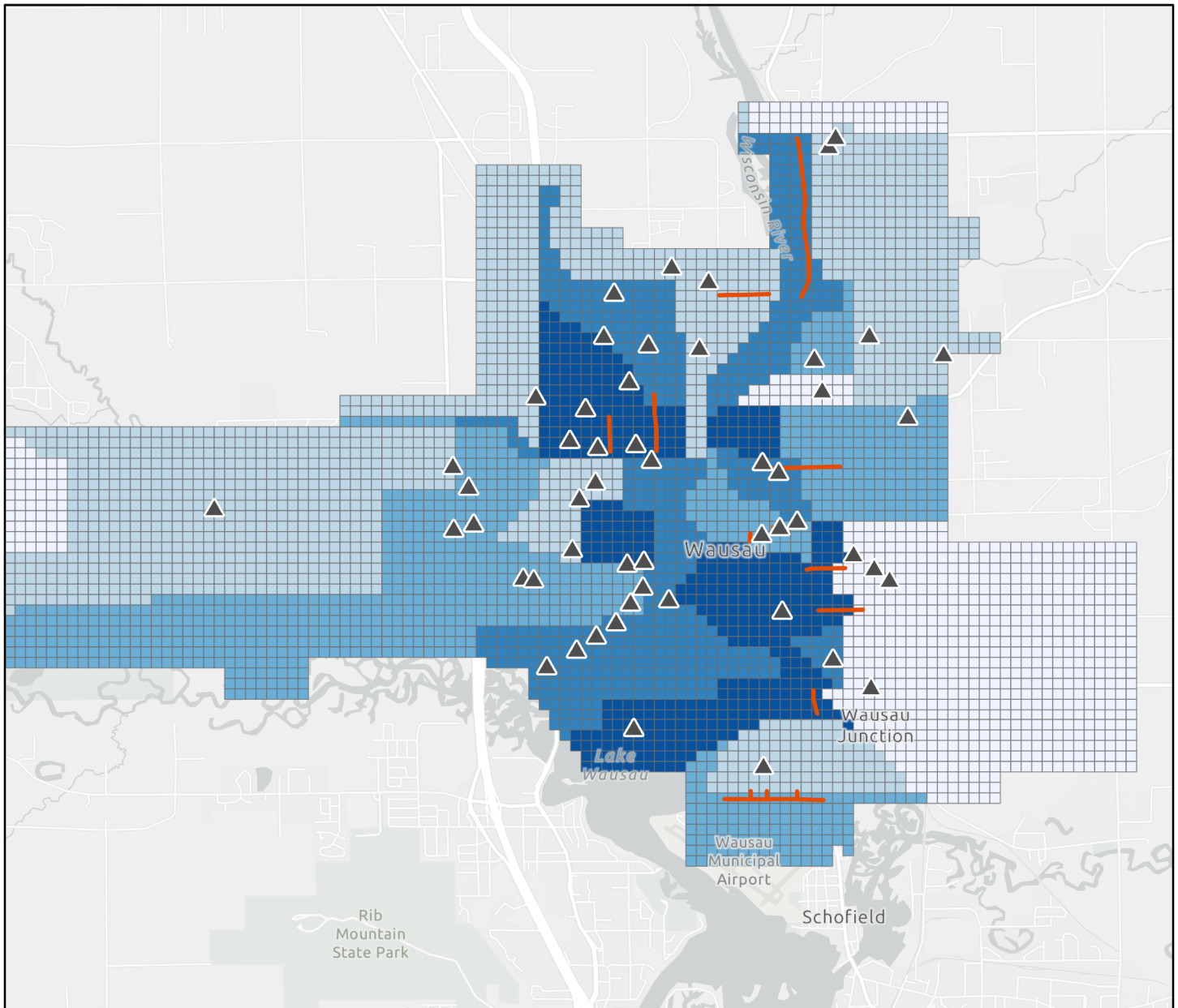
Water Main Installation at the Existing DWTF Site



Well 6 Piping and Electrical Modifications



Wausau Lead Service Line Replacement Prioritization Plan



Legend

- ▲ Critical Sites
- Future CIP Projects
- Lowest Priority
- Low Priority
- Moderate Priority
- High Priority
- Highest Priority



0 0.75 1.5 3 Miles

Prioritization criteria include children under 5 years old, median household income, and environmental justice. Data are from the United States Census Bureau's 2016-2020 American Community Survey 5-year estimates.



**WATER, ELECTRIC, OR JOINT UTILITY
ANNUAL REPORT**

OF

WAUSAU WATER UTILITY

407 GRANT ST
WAUSAU, WI 54403-4737

For the Year Ended: DECEMBER 31, 2021

TO

PUBLIC SERVICE COMMISSION OF WISCONSIN

P.O. Box 7854
Madison, WI 53707-7854
(608) 266-3766

This form is required under Wis. Stat. §196.07. Failure to file the form by the statutory filing date can result in the imposition of a penalty under Wis. Stat. §196.66. The penalty which can be imposed by this section of the statutes is a forfeiture of not less than \$25 nor more than \$5,000 for each violation. Each day subsequent to the filing date constitutes a separate and distinct violation. The filed form is available to the public and personally identifiable information may be used for purposes other than those related to public utility regulation.

Filed: 05/19/2022

Water Service Started Date: 01/01/1885

DNR Public Water System ID: 73701023

Safe Drinking Water Information System (SDWIS) Total Population Served: 39106

I **Eric Lindman, Director of Public Works & Utilities** of **WAUSAU WATER UTILITY**, certify that I am the person responsible for accounts; that I have examined the following report and, to the best of my knowledge, information and belief, it is a correct statement of the business and affairs of said utility for the period covered by the report in respect to each and every matter set forth therein.

Date Signed: **5/18/2022**

Table of Contents

Schedule Name	Page
INTRODUCTORY SECTION	
Signature Page	ii
Identification and Ownership - Contacts	iv
Identification and Ownership - Governing Authority and Audit Information	v
Identification and Ownership - Contract Operations	vi
Workforce Diversity	xi
FINANCIAL SECTION	
Income Statement	F-01
Income Statement Account Details	F-02
Income from Merchandising, Jobbing & Contract Work (Accts. 415-416)	F-03
Revenues Subject to Wisconsin Remainder Assessment	F-04
Distribution of Total Payroll	F-05
Full-Time Employees (FTE)	F-06
Balance Sheet	F-07
Net Utility Plant	F-08
Accumulated Provision for Depreciation of Utility Plant on Utility Plant Financed by Utility Operations or by the Municipality (Acct. 111.1)	F-09
Accumulated Provision for Depreciation of Utility Plant on Contributed Plant in Service (Acct. 111.2)	F-10
Net Nonutility Property (Accts. 121 & 122)	F-11
Accumulated Provision for Uncollectible Accounts-Cr. (Acct. 144)	F-12
Materials and Supplies	F-13
Unamortized Debt Discount & Expense & Premium on Debt (Accts. 181 and 251)	F-14
Capital Paid in by Municipality (Acct. 200)	F-15
Bonds (Acct. 221)	F-17
Notes Payable & Miscellaneous Long-Term Debt	F-18
Taxes Accrued (Acct. 236)	F-19
Interest Accrued (Acct. 237)	F-20
Balance Sheet Detail - Other Accounts	F-22
Return on Rate Base Computation	F-23
Regulatory Liability - Pre-2003 Historical Accumulated Depreciation on Contributed Utility Plant (253)	F-25
Important Changes During the Year	F-26
WATER SECTION	
Water Operating Revenues & Expenses	W-01
Water Operating Revenues - Sales of Water	W-02
Sales for Resale (Acct. 466)	W-03
Other Operating Revenues (Water)	W-04
Water Operation & Maintenance Expenses	W-05
Taxes (Acct. 408 - Water)	W-06
Water Property Tax Equivalent - Detail	W-07
Water Utility Plant in Service - Plant Financed by Utility or Municipality	W-08
Water Utility Plant in Service - Plant Financed by Contributions	W-09
Water Accumulated Provision for Depreciation - Plant Financed by Utility or Municipality	W-10
Water Accumulated Provision for Depreciation - Plant Financed by Contributions	W-12
Age of Water Mains	W-13

Table of Contents

WATER SECTION

Sources of Water Supply - Statistics	W-14
Water Audit and Other Statistics	W-15
Sources of Water Supply - Well Information	W-16
Sources of Water Supply - Intake Information	W-17
Pumping & Power Equipment	W-18
Reservoirs, Standpipes and Elevated Tanks	W-19
Water Treatment Plant	W-20
Water Mains	W-21
Utility-Owned Water Service Lines	W-22
Meters	W-23
Hydrants and Distribution System Valves	W-25
List of All Station and Wholesale Meters	W-26
Water Conservation Programs	W-27
Water Customers Served	W-28
Privately-Owned Water Service Lines	W-29
Water Residential Customer Data ñ Disconnection, Arrears, and Tax Roll	W-30

Income Statement

Description (a)	This Year (b)	Last Year (c)	
UTILITY OPERATING INCOME			1
Operating Revenues (400)	7,687,942	6,585,705	2
Operating Expenses:			3
Operation and Maintenance Expense (401-402)	3,508,615	2,932,387	4
Depreciation Expense (403)	928,633	903,580	5
Amortization Expense (404-407)	0	0	6
Taxes (408)	1,590,580	1,307,702	7
Total Operating Expenses	6,027,828	5,143,669	8
Net Operating Income	1,660,114	1,442,036	9
Income from Utility Plant Leased to Others (412-413)			10
Utility Operating Income	1,660,114	1,442,036	11
OTHER INCOME			12
Income from Merchandising, Jobbing and Contract Work (415-416)	0	0	13
Income from Nonutility Operations (417)	672	801	14
Nonoperating Rental Income (418)			15
Interest and Dividend Income (419)	657	6,736	16
Miscellaneous Nonoperating Income (421)	1,997	604,865	17
Total Other Income	3,326	612,402	18
Total Income	1,663,440	2,054,438	19
MISCELLANEOUS INCOME DEDUCTIONS			20
Miscellaneous Amortization (425)	(109,599)	(109,599)	21
Other Income Deductions (426)	310,449	313,879	22
Total Miscellaneous Income Deductions	200,850	204,280	23
Income Before Interest Charges	1,462,590	1,850,158	24
INTEREST CHARGES			25
Interest on Long-Term Debt (427)	573,672	260,755	26
Amortization of Debt Discount and Expense (428)		9,277	27
Amortization of Premium on Debt--Cr. (429)	26,895	26,056	28
Interest on Debt to Municipality (430)	0	0	29
Other Interest Expense (431)	0	0	30
Interest Charged to Construction--Cr. (432)			31
Total Interest Charges	546,777	243,976	32
Net Income	915,813	1,606,182	33
EARNED SURPLUS			34
Unappropriated Earned Surplus (Beginning of Year) (216)	36,869,765	35,263,583	35
Balance Transferred from Income (433)	915,813	1,606,182	36
Miscellaneous Credits to Surplus (434)			37
Miscellaneous Debits to Surplus--Debit (435)			38
Appropriations of Surplus--Debit (436)			39
Appropriations of Income to Municipal Funds--Debit (439)			40
Total Unappropriated Earned Surplus End of Year (216)	37,785,578	36,869,765	41

Balance Sheet

Assets and Other Debits (a)	Balance End of Year (b)	Balance First of Year (c)	
ASSETS AND OTHER DEBITS			1
UTILITY PLANT			2
Utility Plant (101)	102,853,162	76,587,847	3
Less: Accumulated Provision for Depreciation and Amortization of Utility Plant (111)	24,272,272	23,007,422	4
Utility Plant Acquisition Adjustments (117-118)	0	0	5
Other Utility Plant Adjustments (119)	0	0	6
Net Utility Plant	78,580,890	53,580,425	7
OTHER PROPERTY AND INVESTMENTS			8
Nonutility Property (121)	0	0	9
Less: Accumulated Provision for Depreciation and Amortization of Nonutility Property (122)	0	0	10
Investment in Municipality (123)	0	0	11
Other Investments (124)	0	0	12
Sinking Funds (125)	1,484,653	933,890	13
Depreciation Fund (126)	0	0	14
Other Special Funds (128)	0	0	15
Total Other Property and Investments	1,484,653	933,890	16
CURRENT AND ACCRUED ASSETS			17
Cash (131)	1,635,577	1,828,725	18
Special Deposits (134)	0	0	19
Working Funds (135)	0	0	20
Temporary Cash Investments (136)	0	0	21
Notes Receivable (141)	0	0	22
Customer Accounts Receivable (142)	2,013,737	1,915,969	23
Other Accounts Receivable (143)	0	0	24
Accumulated Provision for Uncollectible Accounts- -Cr. (144)	35,400	35,400	25
Receivables from Municipality (145)	0	0	26
Plant Materials and Operating Supplies (154)	303,437	266,594	27
Merchandise (155)	0	0	28
Other Materials and Supplies (156)	0	0	29
Stores Expense (163)	0	0	30
Prepayments (165)	0	0	31
Interest and Dividends Receivable (171)	0	0	32
Accrued Utility Revenues (173)	0	0	33
Miscellaneous Current and Accrued Assets (174)	1,126,876	736,490	34
Total Current and Accrued Assets	5,044,227	4,712,378	35
DEFERRED DEBITS			36
Unamortized Debt Discount and Expense (181)	0	0	37
Extraordinary Property Losses (182)	0	0	38
Preliminary Survey and Investigation Charges (183)	0	0	39
Clearing Accounts (184)	0	0	40
Temporary Facilities (185)	0	0	41
Miscellaneous Deferred Debits (186)	112,011	242,156	42
Total Deferred Debits	112,011	242,156	43
TOTAL ASSETS AND OTHER DEBITS	85,221,781	59,468,849	44

Balance Sheet

Liabilities and Othe Credits (a)	Balance End of Year (b)	Balance First of Year (c)	
LIABILITIES AND OTHER CREDITS			1
PROPRIETARY CAPITAL			2
Capital Paid in by Municipality (200)	1,927,200	1,927,200	3
Appropriated Earned Surplus (215)	0	0	4
Unappropriated Earned Surplus (216)	37,785,578	36,869,765	5
Total Proprietary Capital	39,712,778	38,796,965	6
LONG-TERM DEBT			7
Bonds (221)	5,915,000	6,380,000	8
Advances from Municipality (223)	0	0	9
Other Long-Term Debt (224)	33,411,559	9,815,561	10
Total Long-Term Debt	39,326,559	16,195,561	11
CURRENT AND ACCRUED LIABILITIES			12
Notes Payable (231)	0	0	13
Accounts Payable (232)	190,908	236,303	14
Payables to Municipality (233)	0	11,457	15
Customer Deposits (235)	0	0	16
Taxes Accrued (236)	0	0	17
Interest Accrued (237)	131,210	62,840	18
Tax Collections Payable (241)	0	0	19
Miscellaneous Current and Accrued Liabilities (242)	5,320,586	3,489,489	20
Total Current and Accrued Liabilities	5,642,704	3,800,089	21
DEFERRED CREDITS			22
Unamortized Premium on Debt (251)	320,541	347,436	23
Customer Advances for Construction (252)	0	0	24
Other Deferred Credits (253)	219,199	328,798	25
Total Deferred Credits	539,740	676,234	26
OPERATING RESERVES			27
Property Insurance Reserve (261)	0	0	28
Injuries and Damages Reserve (262)	0	0	29
Pensions and Benefits Reserve (263)	0	0	30
Miscellaneous Operating Reserves (265)	0	0	31
Total Operating Reserves	0	0	32
TOTAL LIABILITIES AND OTHER CREDITS	85,221,781	59,468,849	33

Return on Rate Base Computation

- Ç The data used in calculating rate base are averages.
- Ç Calculate those averages by summing the first-of-year and the end-of-year figures for each account and then dividing the sum by two.
- Ç For municipal utilities, do not include contributed plant in service, property held for future use, or construction work in progress with utility plant in service. These are not rate base components.
- Ç For private utilities, do not include property held for future use, or construction work in progress with utility plant in service. These are not rate base components.

Average Rate Base (a)	Water (b)	Electric (c)	Gas (d)	Sewer (e)	Total (f)	
Add Average						1
Utility Plant in Service (101.1)	44,674,650				44,674,650	2
Materials and Supplies	285,015				285,015	3
Less Average						4
Reserve for Depreciation (111.1)	17,524,237				17,524,237	5
Customer Advances for Construction	0				0	6
Regulatory Liability	273,998				273,998	7
Average Net Rate Base	27,161,430	0	0	0	27,161,430	8
Net Operating Income	1,660,114				1,660,114	9
Net Operating Income as a percent of Average Net Rate Base	6.11%	N/A	N/A	N/A	6.11%	10

Important Changes During the Year

Report changes of any of the following types:

1. Acquisitions

Construction continues on new Water Treatment Plant on Northwest side of Wausau. Additional Land purchased East of new plant location for potential Solar Array.

2. Leaseholder changes

3. Extensions of service

4. Estimated changes in revenues due to rate changes

5. Obligations incurred or assumed, excluding commercial paper

Safe Drinking Water Fund Loan borrowing increased in proportion to new water treatment plant construction expenses incurred.

6. Formal proceedings with the Public Service Commission

7. Any additional matters

Water Operating Revenues & Expenses

Description (a)	This Year (b)	Last Year (c)	
Operating Revenues - Sales of Water			1
Sales of Water (460-467)	7,437,499	6,431,912	2
Total Sales of Water	7,437,499	6,431,912	3
Other Operating Revenues			4
Forfeited Discounts (470)	92,438	44,356	5
Rents from Water Property (472)	69,500	56,680	6
Interdepartmental Rents (473)	0	0	7
Other Water Revenues (474)	88,505	52,757	8
Total Other Operating Revenues	250,443	153,793	9
Total Operating Revenues	7,687,942	6,585,705	10
Operation and Maintenance Expenses			11
Source of Supply Expense (600-617)	0	0	12
Pumping Expenses (620-633)	579,131	519,970	13
Water Treatment Expenses (640-652)	548,662	555,042	14
Transmission and Distribution Expenses (660-678)	1,459,478	968,339	15
Customer Accounts Expenses (901-906)	195,998	215,704	16
Sales Expenses (910)	0	0	17
Administrative and General Expenses (920-932)	725,346	673,332	18
Total Operation and Maintenance Expenses	3,508,615	2,932,387	19
Other Operating Expenses			20
Depreciation Expense (403)	928,633	903,580	21
Amortization Expense (404-407)	0	0	22
Taxes (408)	1,590,580	1,307,702	23
Total Other Operating Expenses	2,519,213	2,211,282	24
Total Operating Expenses	6,027,828	5,143,669	25
NET OPERATING INCOME	1,660,114	1,442,036	26

Water Audit and Other Statistics

- Ç Where possible, report actual metered values. If water uses are not metered, estimate values for each line based on best available information. For assistance, refer to AWWA M36 Manual ñ Water Audits and Loss Control Programs.
- Ç For unbilled, unmetered gallons (line 16), include water used for system operation and maintenance and water used for non-regulated sewer utility.
- Ç If gallons estimated due to theft, data, and billing errors is unknown, multiply net gallons entering distribution system (line 3) by .0025.

Description (a)	Value (b)	
WATER AUDIT STATISTICS		1
Finished Water pumped or purchased (000s)	1,451,064	2
Less: Gallons (000s) sold to wholesale customers (exported water)	2,561	3
Subtotal: Net gallons (000s) entering distribution system	1,448,503	4
Less: Gallons (000s) sold to retail customers (billed, metered)	1220116	6
Less: Gallons (000s) sold to retail customers (billed, unmetered)	0	7
Gallons (000s) of Non-Revenue Water	228,387	8
Gallons (000s) of unbilled-metered (including customer use to prevent freezing)	12,146	9
Gallons (000s) of unbilled-unmetered (including unmetered flushing, fire protection)	55,315	10
Subtotal: Unbilled Authorized Consumption	67,461	11
Total Water Loss	160,926	12
Gallons (000s) estimated due to unauthorized consumption (includes theft) default option	3628	14
Gallons (000s) estimated due to data and billing errors	3628	15
Gallons (000s) estimated due to customer meter under-registration	3,628	16
Subtotal Apparent Losses	10,884	17
Gallons (000s) estimated due to reported leakage (mains, services, hydrants, overflows)	13,782	18
Gallons (000s) estimated due to unreported and background leakage	136,260	19
Subtotal Real Losses (leakage)	150,042	20
Non-Revenue Water as percentage of net water supplied	16%	21
Total Water Loss as percentage of net water supplied	11%	22
OTHER STATISTICS		23
Maximum gallons (000s) pumped by all methods in any one day during reporting year	6,820	24
Date of maximum	06/14/2021	25
Cause of maximum		26
Hot weather.		27
Minimum gallons (000s) pumped by all methods in any one day during reporting year	2,106	28
Date of minimum	11/13/2021	29
Total KWH used by the utility (including pumping, treatment facilities and other utility operations)	2,618,561	30
If water is purchased:		31
Vendor Name		32
Point of Delivery		33
Source of purchased water		34
Vendor Name (2)		35
Point of Delivery (2)		36
Source of purchased water (2)		37
Vendor Name (3)		38
Point of Delivery (3)		39
Source of purchased water (3)		40
Number of main breaks repaired this year	6	41
Number of service breaks repaired this year	6	42
Does the utility have an asset management plan?	No	43

Water Customers Served

- Ç List the number of customer accounts in each municipality for which your utility provides retail general service. Do not include wholesale customers or fire protection accounts.
- Ç Per Wisconsin state statute, a city, village, town or sanitary district owning water plant or equipment may serve customers outside its corporate limits, including adjoining municipalities. For purposes of this schedule, customers located ~~outside~~ Within Muni Boundary refers to those located inside the jurisdiction that owns the water utility.

Municipality (a)	Customers End of Year (b)	
Maine (Village)	78 *	1
Wausau (City) **	16,069	2
Total - Marathon County	16,147	3
Total - Customers Served	16,147	4
Total - Outside Muni Boundary	78	5
Total - Within Muni Boundary **	16,069	6

** = Within municipal boundary

Water Customers Served

- Ç List the number of customer accounts in each municipality for which your utility provides retail general service. Do not include wholesale customers or fire protection accounts.

Ç Per Wisconsin state statute, a city, village, town or sanitary district owning water plant or equipment may serve customers outside its corporate limits, including adjoining municipalities. For purposes of this schedule, customers located *Within Muni Boundary* refers to those located inside the jurisdiction that owns the water utility.

Water Customers Served (Page W-28)

General Footnote

Village of Maine retail customer count from prior year Maine Water Utility PSC Annual Report.

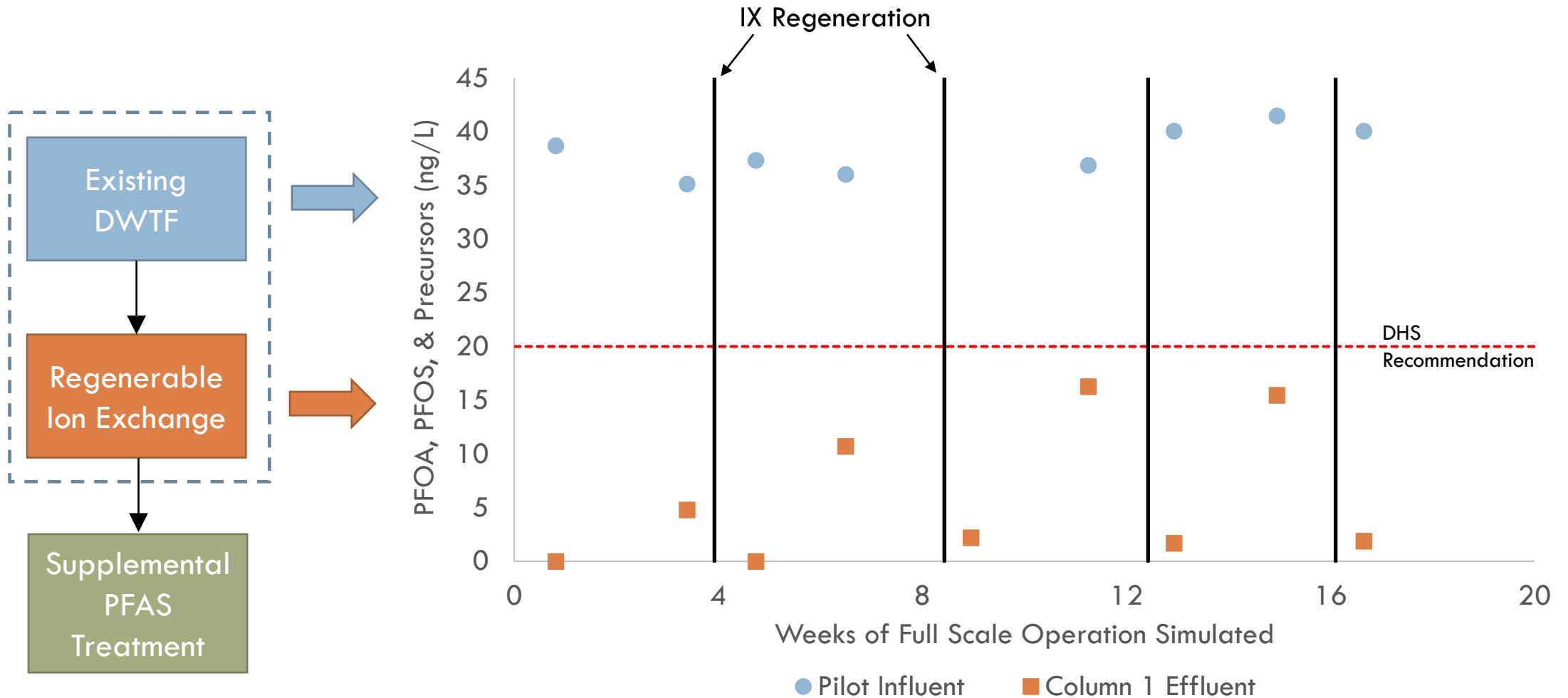
Wausau Water Works Commission

PFAS Engineering Evaluation Update



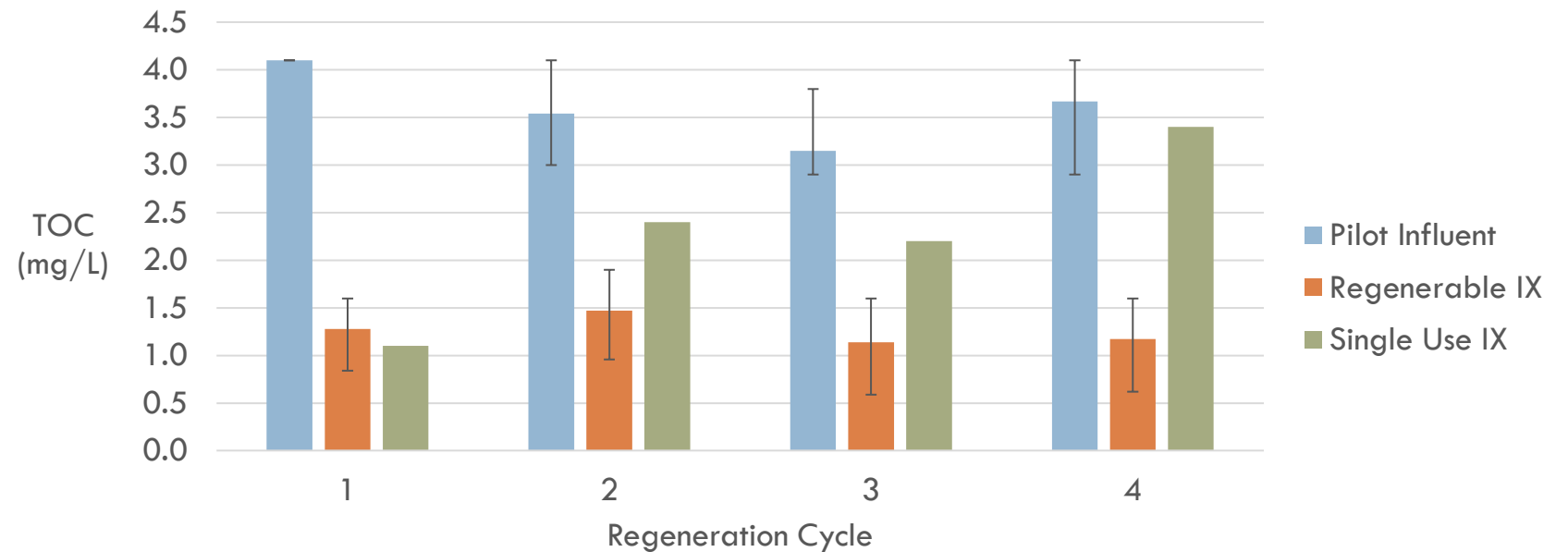
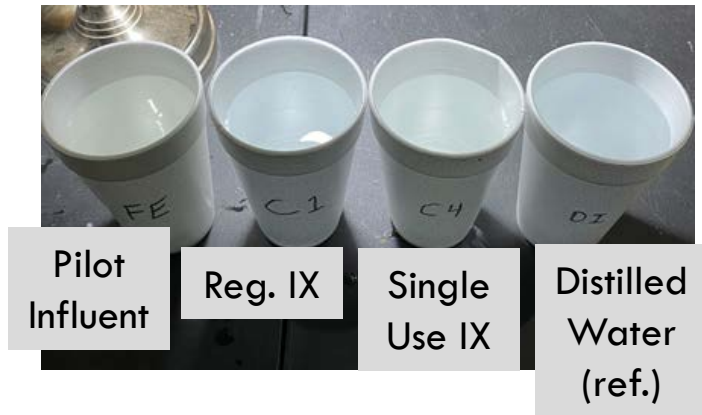
June 7, 2022

Pilot Study Results for Focus Compounds

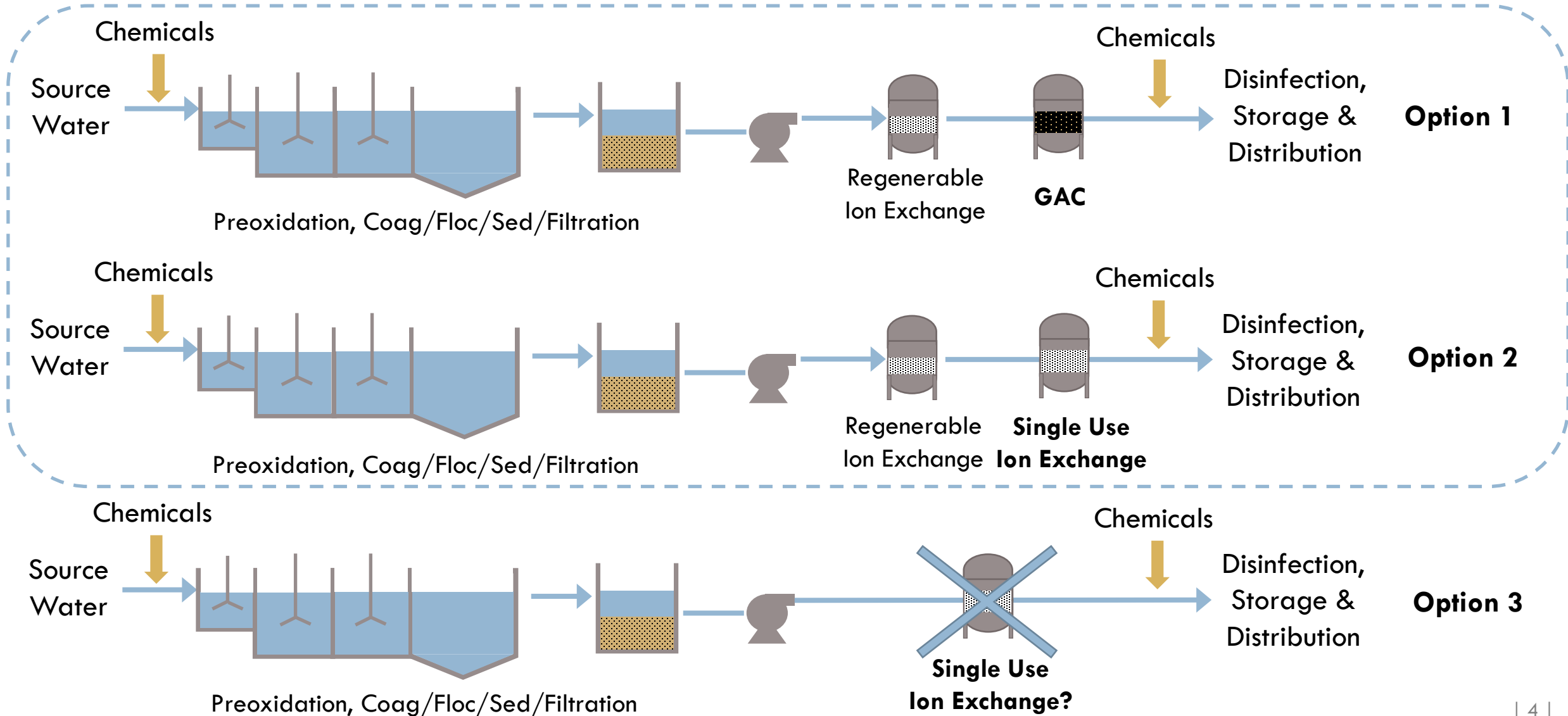


Regenerable IX Resin Benefits

- Color Removal and TOC Reduction
- Effective Pretreatment for GAC and Single Use IX Polishing
- Some PFAS Removal



PFAS Removal: Potential Long-Term Solutions



Alternatives Selection (Options Considered)

- Source Water
 - Strategic Well Operation / Blending – Not Feasible (All Wells Affected)
 - Alternative Wells / Water Supply – Not Feasible
 - Well Head Treatment – Not Cost-Effective
- Treatment (Established Technologies)
 - Reverse Osmosis/Nanofiltration – Cost, Waste Disposal
 - Powdered Activated Carbon – Waste Implications
 - Granular Activated Carbon
 - Ion Exchange

} > 12 Sizes and Configurations → Short List of Four Alternatives
- Treatment (Emerging Technologies) – Schedule, Scale, Cost

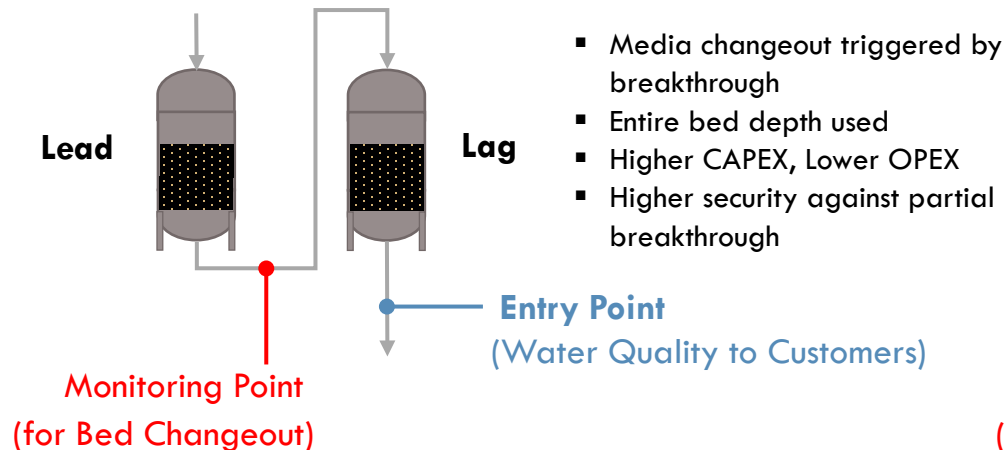
Treatment Alternatives Evaluated

Alternative	Technology	Allows for Lead/Lag Operation	Requires Parallel Operation	“Off-the-Shelf” Vessels Available
Alt. 1: 12 Tall Vessels	GAC	✓		
Alt. 2: 8 Tall Vessels	GAC		✓	
Alt. 3: 12 Short Vessels	GAC		✓	✓
Alt. 4: 8 Short Vessels	IX	✓		✓

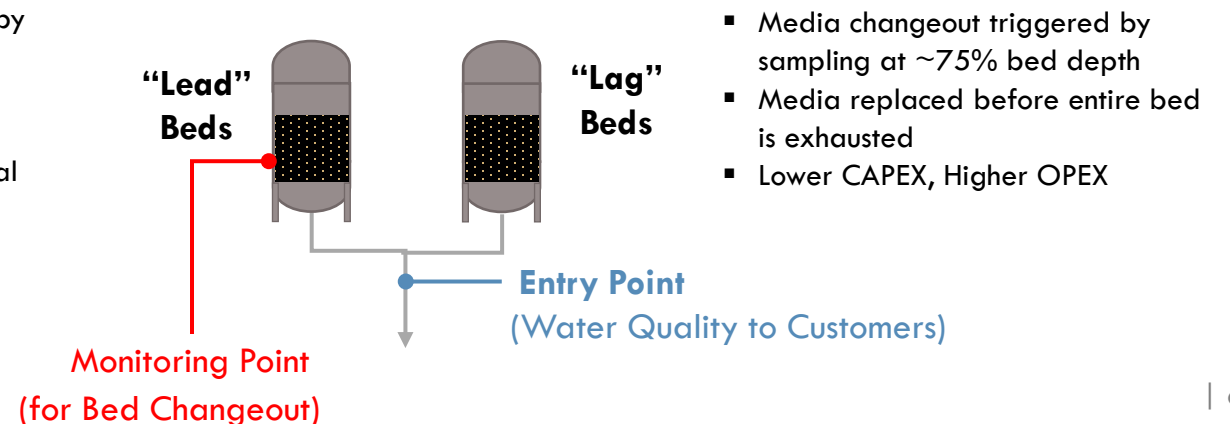
Tall Vessels: 1400 cubic feet of carbon

Short Vessels: 700 cubic feet of carbon (or 336-565 cubic feet of resin)

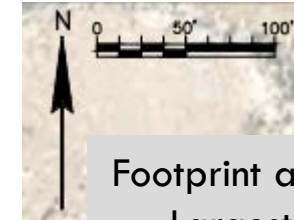
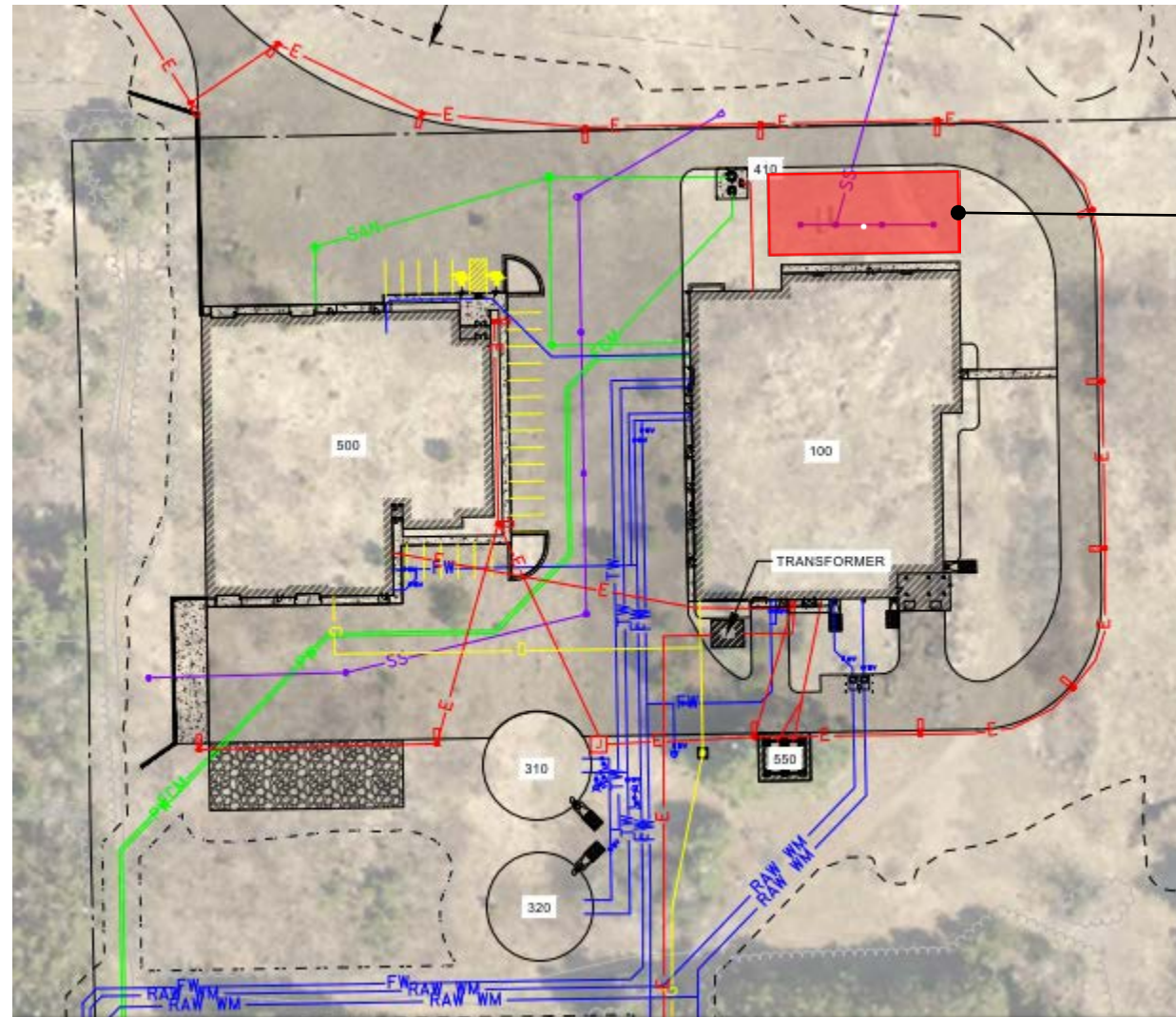
Lead/Lag Operation



Parallel Operation

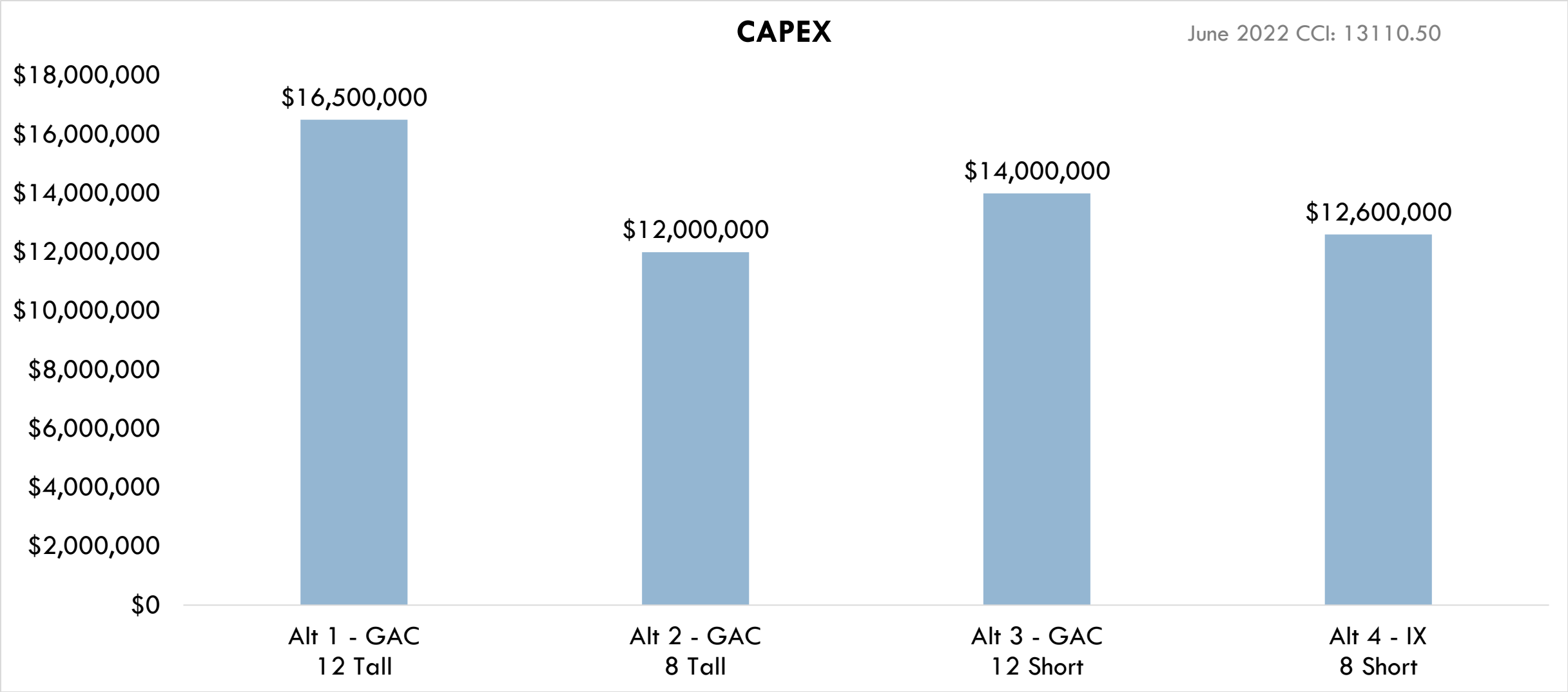


Location and Footprint Perspective

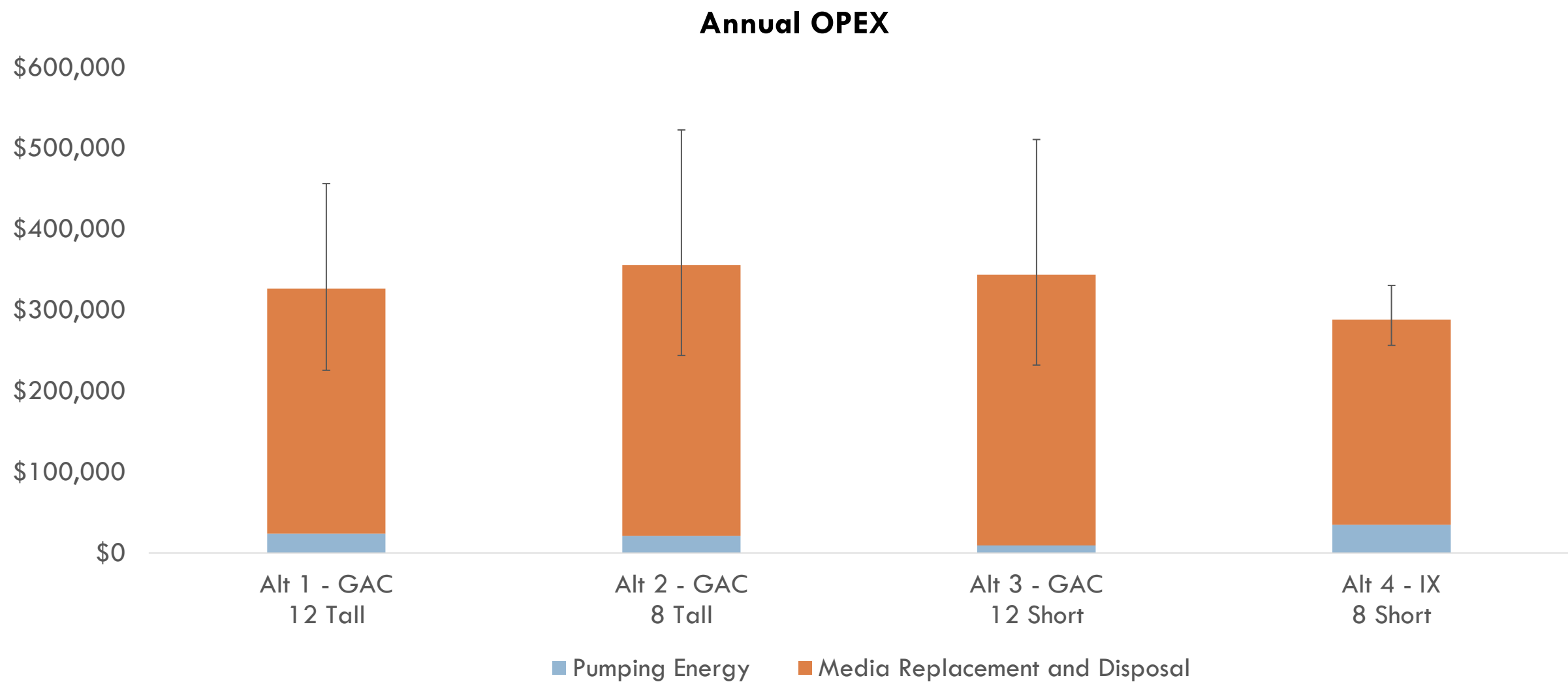


Footprint and Location for
Largest (12-Vessel)
Alternatives

Capital Costs [CAPEX]



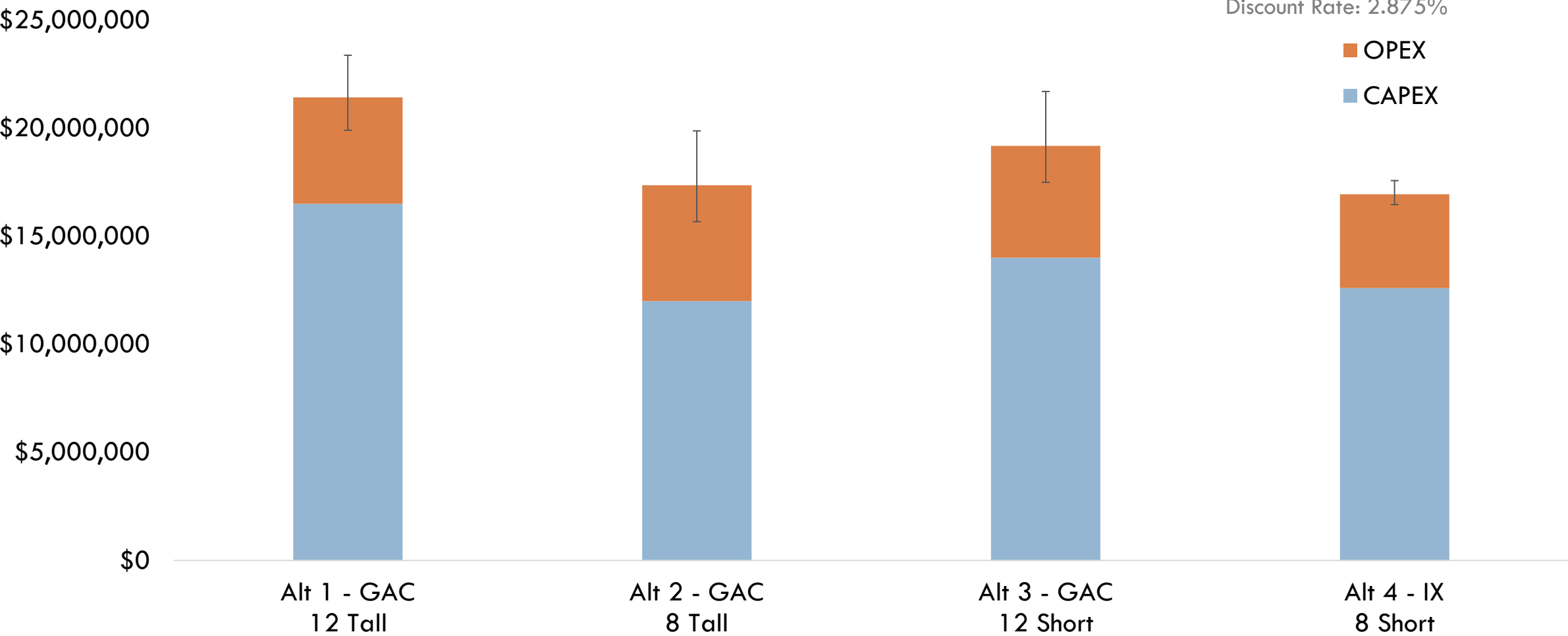
O&M Costs [OPEX]



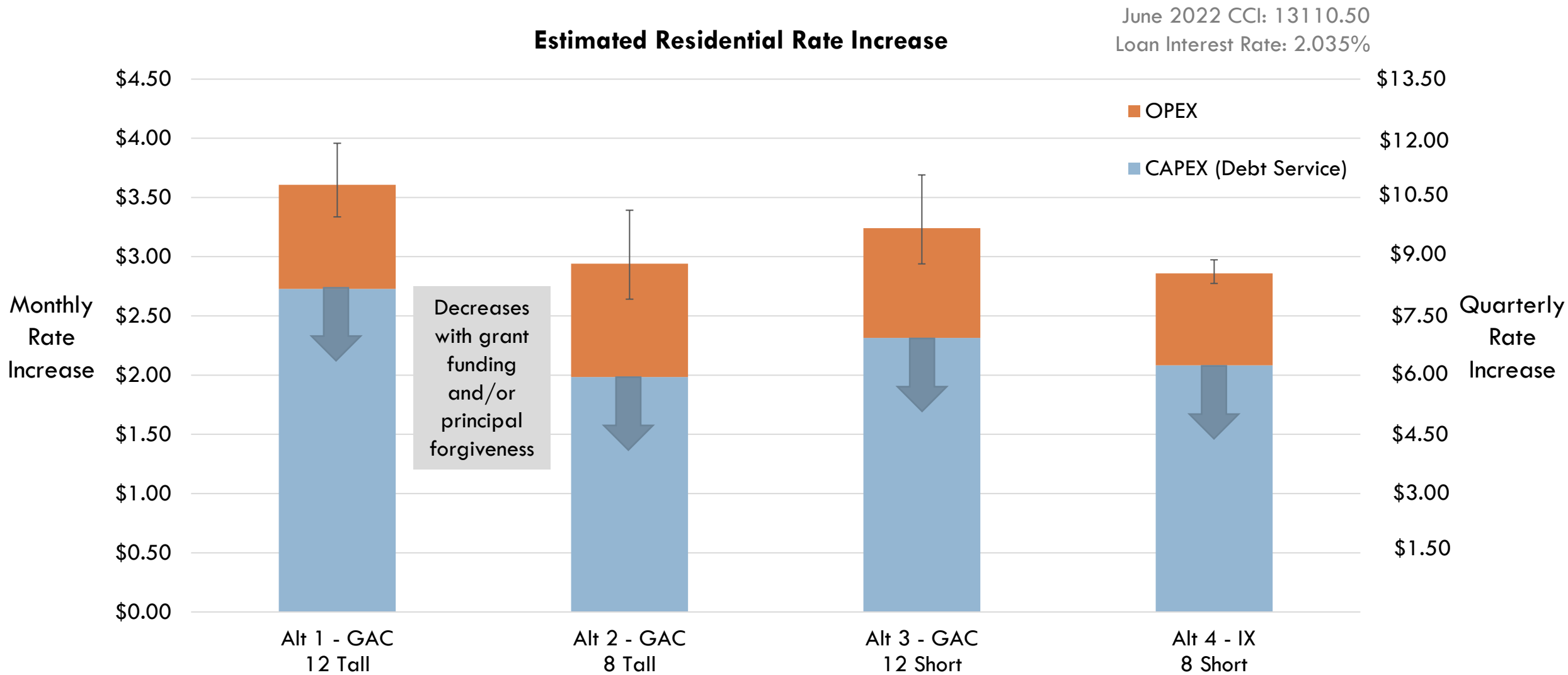
20-Year Life Cycle Costs

20-Year Total Present Value

June 2022 CCI: 13110.50
Discount Rate: 2.875%

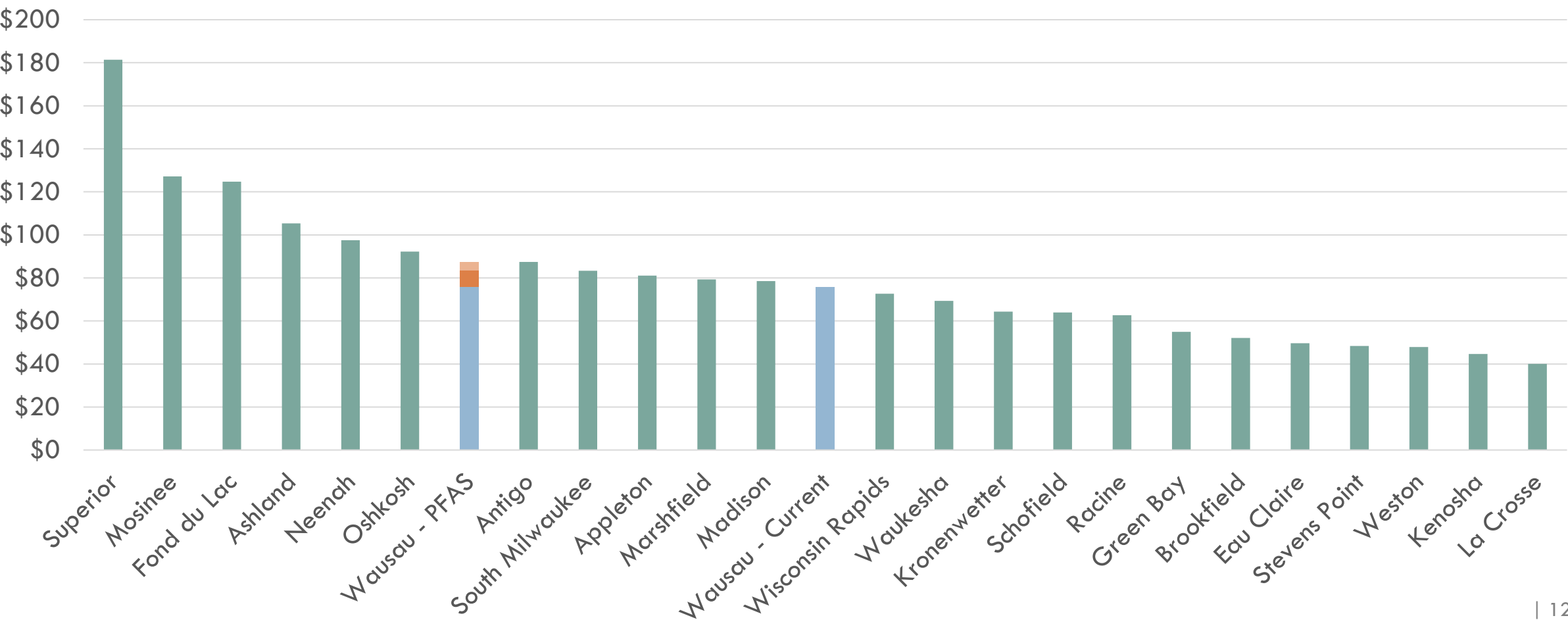


Estimated User Rate Impacts



User Rate Perspective

Quarterly Bill Representative of Typical Wausau Residential User (52 CCF per Year)
and including Public Fire Protection Charges (as of June 2022)

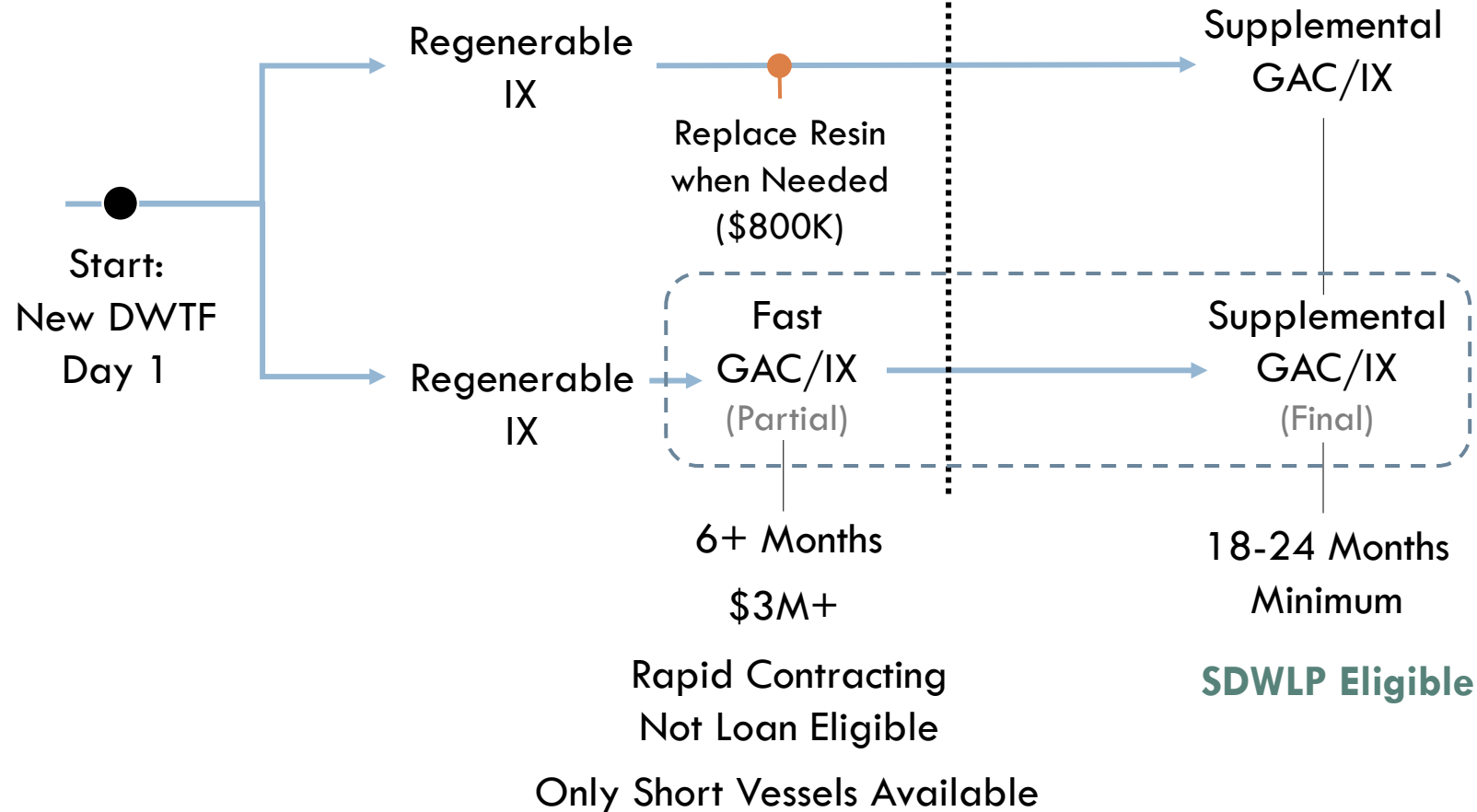


Short-Term and Long-Term Strategies

Short-Term Strategies

(~18-24 Months)

Long-Term Strategies

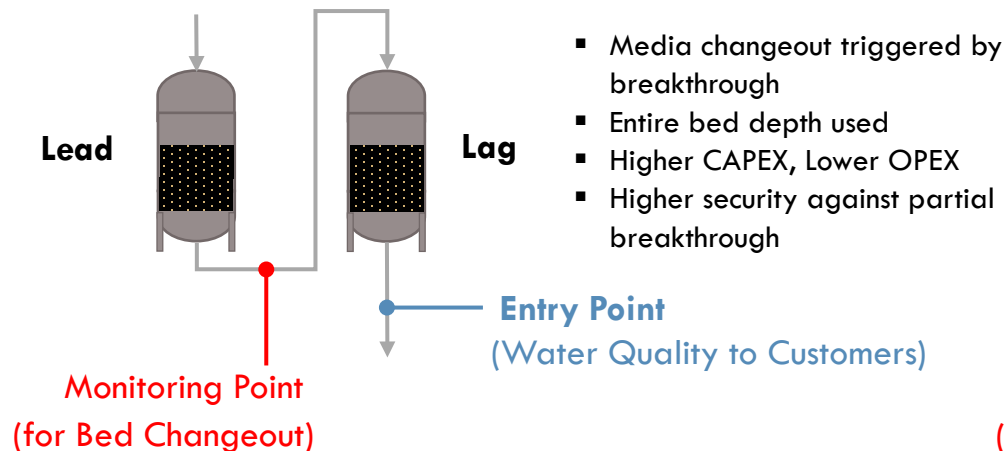


Alternatives Summary

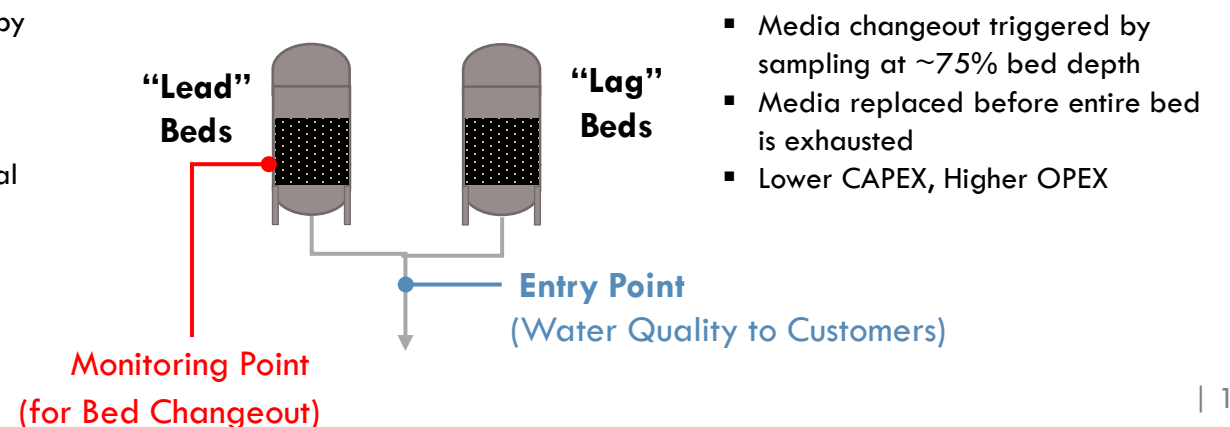
Alternative	Technology	20-Year TPV ¹ (Mid-Range)	Estimated Monthly Rate Payer Cost ¹	Estimated Quarterly Rate Payer Cost ¹	Considerations
Alt. 1: 12 Tall Vessels	GAC	\$21.4M	\$3.60	\$10.80	Robust Solution (No Compromises)
Alt. 2: 8 Tall Vessels	GAC	\$17.4M	\$2.90	\$8.70	Cost-Saving GAC Option
Alt. 3: 12 Short Vessels	GAC	\$19.2M	\$3.20	\$9.60	Only Benefit is Speed
Alt. 4: 8 Short Vessels	IX	\$16.9M	\$2.90	\$8.70	Limited Future Flexibility

¹Without adjusting for potential capital subsidies (grants, principal forgiveness)

Lead/Lag Operation

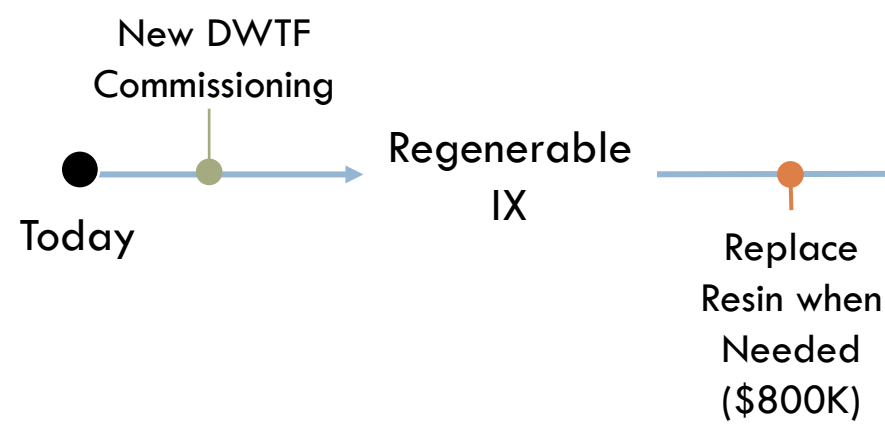


Parallel Operation

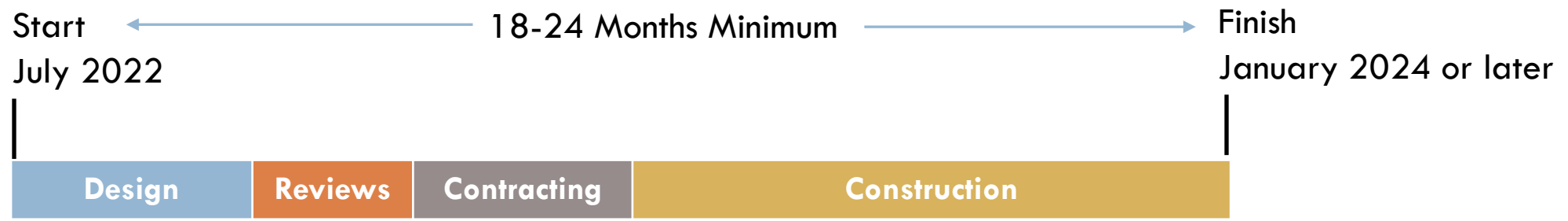
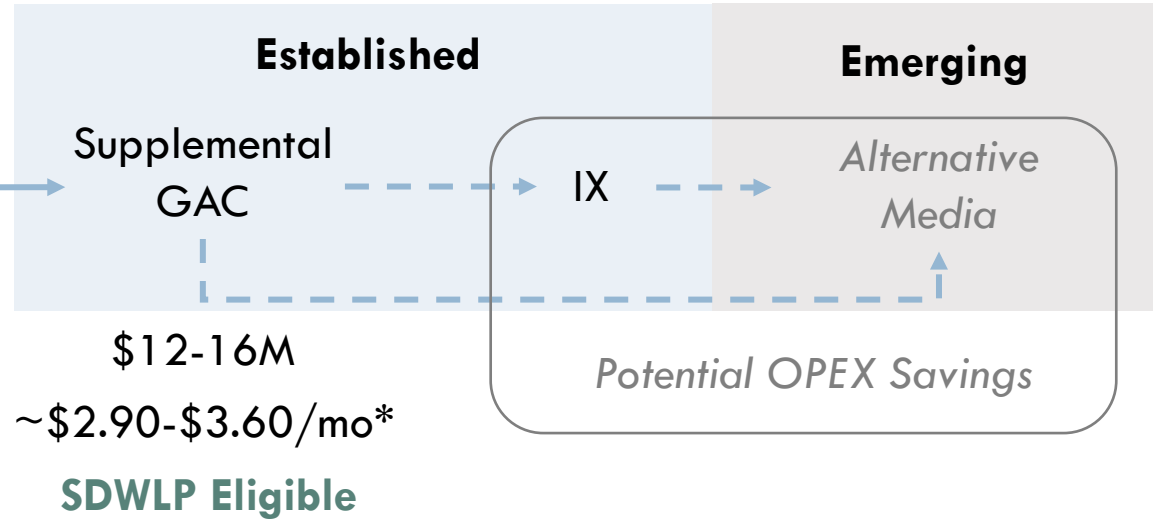


Potential Path Forward

Short-Term Strategy



Long-Term Strategy



*per household (without principal forgiveness) | 15 |

Potential Next Steps

1. Continue pilot testing and expand to include emerging media (example: FLUORO-SORB[®])
2. Initiate design of long-term solution.
3. Pursue funding, PSC approval, and WDNR approval.

THANK YOU

CITY OF WAUSAU, 407 Grant Street, Wausau, WI 54403

RESOLUTION OF WAUSAU WATER WORKS – WASTEWATER DIVISION

Reviewing the 2021 Compliance Maintenance Annual Report for the Wastewater Plant

Committee Action:

Fiscal Impact: There is no fiscal impact to the City.

Resolution Number:

Date Introduced: June 7, 2021

FISCAL IMPACT SUMMARY

COSTS	<i>Budget Neutral</i>	Yes ☒ No ☐	
	<i>Included in Budget:</i>	Yes ☐ No ☐	<i>Budget Source:</i>
	<i>One-time Costs:</i>	Yes ☐ No ☐	<i>Amount:</i>
	<i>Recurring Costs:</i>	Yes ☐ No ☐	<i>Amount:</i>
SOURCE	<i>Fee Financed:</i>	Yes ☐ No ☐	<i>Amount:</i>
	<i>Grant Financed:</i>	Yes ☐ No ☐	<i>Amount:</i>
	<i>Debt Financed:</i>	Yes ☐ No ☐	<i>Amount</i> <i>Annual Retirement</i>
	<i>TID Financed:</i>	Yes ☐ No ☐	<i>Amount:</i>
	<i>TID Source: Increment Revenue</i> ☐ <i>Debt</i> ☐ <i>Funds on Hand</i> ☐ <i>Interfund Loan</i> ☐		

RESOLUTION

WHEREAS, Wausau Water Works – Wastewater Division owns, operates, and maintains a public owned treatment works (POTW) in the City of Wausau on Adrian Street, and

WHEREAS, the Utility’s POTW is authorized to discharge to the Wisconsin River under WPDES Permit No. WI-0025739-09, and

WHEREAS, by Wisconsin Administrative Code NR 208, all Wisconsin POTW’s are required to submit a Compliance Maintenance Annual Report (CMAR), and

WHEREAS, Wausau Water Works – Wastewater Division has prepared the attached 2020 CMAR and acknowledges the point total in the report, and

WHEREAS, the City of Wausau is committed to address the actions set forth in the attached 2020 CMAR; now therefore

BE IT RESOLVED that the Common Council of the City of Wausau has reviewed the attached 2021 Compliance Maintenance Annual Report from Wausau Water Works – Wastewater Division and hereby submits the Report as prescribed.

Approved:

Katie Rosenberg, Mayor

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

Influent Flow and Loading

1. Monthly Average Flows and BOD Loadings

1.1 Verify the following monthly flows and BOD loadings to your facility.

Influent No. 701	Influent Monthly Average Flow, MGD	x	Influent Monthly Average BOD Concentration mg/L	x	8.34	=	Influent Monthly Average BOD Loading, lbs/day
January	3.7133	x	332	x	8.34	=	10,296
February	3.6467	x	347	x	8.34	=	10,552
March	4.3146	x	286	x	8.34	=	10,309
April	4.4672	x	262	x	8.34	=	9,745
May	4.3739	x	277	x	8.34	=	10,111
June	4.5550	x	290	x	8.34	=	11,032
July	5.4300	x	237	x	8.34	=	10,724
August	5.8862	x	264	x	8.34	=	12,958
September	4.5553	x	308	x	8.34	=	11,688
October	3.9430	x	351	x	8.34	=	11,529
November	3.7973	x	342	x	8.34	=	10,840
December	3.9447	x	328	x	8.34	=	10,774

2. Maximum Monthly Design Flow and Design BOD Loading

2.1 Verify the design flow and loading for your facility.

Design	Design Factor	x	%	=	% of Design
Max Month Design Flow, MGD	8.2	x	90	=	7.38
		x	100	=	8.2
Design BOD, lbs/day	17000	x	90	=	15300
		x	100	=	17000

2.2 Verify the number of times the flow and BOD exceeded 90% or 100% of design, points earned, and score:

	Months of Influent	Number of times flow was greater than 90% of	Number of times flow was greater than 100% of	Number of times BOD was greater than 90% of design	Number of times BOD was greater than 100% of design
January	1	0	0	0	0
February	1	0	0	0	0
March	1	0	0	0	0
April	1	0	0	0	0
May	1	0	0	0	0
June	1	0	0	0	0
July	1	0	0	0	0
August	1	0	0	0	0
September	1	0	0	0	0
October	1	0	0	0	0
November	1	0	0	0	0
December	1	0	0	0	0
Points per each		2	1	3	2
Exceedances		0	0	0	0
Points		0	0	0	0
Total Number of Points					0

0

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

3. Flow Meter

3.1 Was the influent flow meter calibrated in the last year?

- ☒ Yes Enter last calibration date (MM/DD/YYYY)

2022-04-23

☐ No

If No, please explain:

4. Sewer Use Ordinance

4.1 Did your community have a sewer use ordinance that limited or prohibited the discharge of excessive conventional pollutants ((C)BOD, SS, or pH) or toxic substances to the sewer from industries, commercial users, hauled waste, or residences?

☒ Yes

☐ No

If No, please explain:

4.2 Was it necessary to enforce the ordinance?

☒ Yes

☐ No

If Yes, please explain:

Minor instances of non-compliance at Great Lakes Cheese and JARP were addressed through the Pretreatment Program Enforcement Action Plan and a minor in plant spill report was filed by KRAFT FOODS. All industries involved were back in compliance shortly thereafter and remained in compliance as of 12/31/21. There were no instances of significant non-compliance during calendar year 2021.

5. Septage Receiving

5.1 Did you have requests to receive septage at your facility?

Septic Tanks Holding Tanks Grease Traps

☒ Yes

☒ Yes

☒ Yes

☐ No

☐ No

☐ No

5.2 Did you receive septage at your facility? If yes, indicate volume in gallons.

Septic Tanks

☒ Yes 42,500 gallons

☐ No

Holding Tanks

☒ Yes 4,455,528 gallons

☐ No

Grease Traps

☐ Yes 0 gallons

☒ No

5.2.1 If yes to any of the above, please explain if plant performance is affected when receiving any of these wastes.

Performance of the plant was not affected by the waste received.

6. Pretreatment

6.1 Did your facility experience operational problems, permit violations, biosolids quality concerns, or hazardous situations in the sewer system or treatment plant that were attributable to commercial or industrial discharges in the last year?

☐ Yes

☒ No

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

If yes, describe the situation and your community's response.

6.2 Did your facility accept hauled industrial wastes, landfill leachate, etc.?

- Yes
- No

If yes, describe the types of wastes received and any procedures or other restrictions that were in place to protect the facility from the discharge of hauled industrial wastes.

Brokaw=110,000 gals, Advanced Disposal= 149,850 gals, Waste Management= 6,000 gals, REI= 7,623 gals, Marathon County Solid Waste Leachate= 2,791,800 gals.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

Effluent Quality and Plant Performance (BOD/CBOD)

1. Effluent (C)BOD Results

1.1 Verify the following monthly average effluent values, exceedances, and points for BOD or CBOD

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit > 10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	30	27	16	1	0	0
February	30	27	15	1	0	0
March	30	27	18	1	0	0
April	30	27	14	1	0	0
May	30	27	13	1	0	0
June	30	27	16	1	0	0
July	30	27	12	1	0	0
August	30	27	10	1	0	0
September	30	27	15	1	0	0
October	30	27	22	1	0	0
November	30	27	14	1	0	0
December	30	27	10	1	0	0

* Equals limit if limit is ≤ 10

Months of discharge/yr	12		
Points per each exceedance with 12 months of discharge		7	3
Exceedances		0	0
Points		0	0
Total number of points			0

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge. Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

2. Flow Meter Calibration

2.1 Was the effluent flow meter calibrated in the last year?

- ☒ Yes Enter last calibration date (MM/DD/YYYY)

2022-04-23

☐ No

If No, please explain:

3. Treatment Problems

3.1 What problems, if any, were experienced over the last year that threatened treatment?

No problems to report

4. Other Monitoring and Limits

4.1 At any time in the past year was there an exceedance of a permit limit for any other pollutants such as chlorides, pH, residual chlorine, fecal coliform, or metals?

☒ Yes

☐ No

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

If Yes, please explain:

2/17/21: Mercury result of 3.83 ng/l (daily max limit of 3.8 ng/l), 7/12/21: Eff pH of 5.8, 11/11/21: Eff pH of 5.78, 11/24/21: Eff pH of 5.39, 11/25/21: Eff pH of 5.42 and 11/26/21: Eff pH of 5.5 Magnesium Hydroxide (mag-lime) is now being added to maintain stable Eff pH levels.

4.2 At any time in the past year was there a failure of an effluent acute or chronic whole effluent toxicity (WET) test?

☐ Yes

☒ No

If Yes, please explain:

4.3 If the biomonitoring (WET) test did not pass, were steps taken to identify and/or reduce source(s) of toxicity?

☐ Yes

☐ No

☒ N/A

Please explain unless not applicable:

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

Effluent Quality and Plant Performance (Total Suspended Solids)

1. Effluent Total Suspended Solids Results

1.1 Verify the following monthly average effluent values, exceedances, and points for TSS:

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit >10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	30	27	10	1	0	0
February	30	27	10	1	0	0
March	30	27	11	1	0	0
April	30	27	7	1	0	0
May	30	27	7	1	0	0
June	30	27	10	1	0	0
July	30	27	10	1	0	0
August	30	27	8	1	0	0
September	30	27	11	1	0	0
October	30	27	9	1	0	0
November	30	27	9	1	0	0
December	30	27	8	1	0	0

* Equals limit if limit is ≤ 10

Months of Discharge/yr	12		
Points per each exceedance with 12 months of discharge:		7	3
Exceedances		0	0
Points		0	0
Total Number of Points		0	

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

No violations reported.

0

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

Effluent Quality and Plant Performance (Phosphorus)

1. Effluent Phosphorus Results

1.1 Verify the following monthly average effluent values, exceedances, and points for Phosphorus

Outfall No. 001	Monthly Average phosphorus Limit (mg/L)	Effluent Monthly Average phosphorus (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance
January	1	0.480	1	0
February	1	0.648	1	0
March	1	0.480	1	0
April	1	0.463	1	0
May	1	0.440	1	0
June	1	0.755	1	0
July	1	0.718	1	0
August	1	0.569	1	0
September	1	0.881	1	0
October	1	0.796	1	0
November	1	0.825	1	0
December	1	0.513	1	0
Months of Discharge/yr			12	
Points per each exceedance with 12 months of discharge:				10
Exceedances				0
Total Number of Points				0

0

NOTE: For systems that discharge intermittently to waters of the state, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

No violations reported.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

Biosolids Quality and Management

1. Biosolids Use/Disposal

1.1 How did you use or dispose of your biosolids? (Check all that apply)

- ☒ Land applied under your permit
- ☐ Publicly Distributed Exceptional Quality Biosolids
- ☐ Hauled to another permitted facility
- ☐ Landfilled
- ☐ Incinerated
- ☐ Other

NOTE: If you did not remove biosolids from your system, please describe your system type such as lagoons, reed beds, recirculating sand filters, etc.

1.1.1 If you checked Other, please describe:

2. Land Application Site

2.1 Last Year's Approved and Active Land Application Sites

2.1.1 How many acres did you have?

4260.80 acres

2.1.2 How many acres did you use?

327.5 acres

2.2 If you did not have enough acres for your land application needs, what action was taken?

2.3 Did you overapply nitrogen on any of your approved land application sites you used last year?

o Yes (30 points)

● No

2.4 Have all the sites you used last year for land application been soil tested in the previous 4 years?

● Yes

o No (10 points)

o N/A

0

3. Biosolids Metals

Number of biosolids outfalls in your WPDES permit:

3.1 For each outfall tested, verify the biosolids metal quality values for your facility during the last calendar year.

Outfall No. 002 - CAKE SLUDGE

Parameter	80% of Limit	H.Q. Limit	Ceiling Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	80% Value	High Quality	Ceiling
Arsenic		41	75			<4.54			<3.49			<3.45			<4.15		0	0
Cadmium		39	85			.757			.679			1.187			1.13		0	0
Copper		1500	4300			688			621			529			566		0	0
Lead		300	840			23			21			31			23		0	0
Mercury		17	57			.556			.714			.774			.35		0	0
Molybdenum	60		75			21			15			16			17	0		0
Nickel	336		420			30			25			42			26	0		0
Selenium	80		100			<4.01			<3.08			5.81			<3.66	0		0
Zinc		2800	7500			535			600			677			678		0	0

3.1.1 Number of times any of the metals exceeded the high quality limits OR 80% of the limit for molybdenum, nickel, or selenium = 0

Exceedence Points

● 0 (0 Points)

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

- ☐ 1-2 (10 Points)
- ☐ > 2 (15 Points)
- 3.1.2 If you exceeded the high quality limits, did you cumulatively track the metals loading at each land application site? (check applicable box)
 - ☐ Yes
 - ☐ No (10 points)
 - N/A - Did not exceed limits or no HQ limit applies (0 points)
 - ☐ N/A - Did not land apply biosolids until limit was met (0 points)
- 3.1.3 Number of times any of the metals exceeded the ceiling limits = 0
Exceedence Points
 - 0 (0 Points)
 - ☐ 1 (10 Points)
 - ☐ > 1 (15 Points)
- 3.1.4 Were biosolids land applied which exceeded the ceiling limit?
 - ☐ Yes (20 Points)
 - No (0 Points)
- 3.1.5 If any metal limit (high quality or ceiling) was exceeded at any time, what action was taken?
Has the source of the metals been identified?

N/A

0

4. Pathogen Control (per outfall):

4.1 Verify the following information. If any information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2021 - 03/31/2021
Density:	22,423
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	No
Process:	Anaerobic Digestion
Process Description:	Primary and Secondary Anaerobic Digestion

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	04/01/2021 - 06/30/2021
Density:	17,074
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Primary and Secondary Anaerobic Digestion

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2021 - 09/30/2021
Density:	16,363
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Primary and Secondary Anaerobic Digestion

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2021 - 12/31/2021
Density:	17,989
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Primary and Secondary Anaerobic Digestion

4.2 If exceeded Class B limit or did not meet the process criteria at the time of land application.

4.2.1 Was the limit exceeded or the process criteria not met at the time of land application?

○ Yes (40 Points)

● No

If yes, what action was taken?

N/A

5. Vector Attraction Reduction (per outfall):

5.1 Verify the following information. If any of the information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	002
Method Date:	03/11/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	No
Limit (if applicable):	>= 38
Results (if applicable):	57.30

Outfall Number:	002
Method Date:	06/15/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>= 38
Results (if applicable):	50.20

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

Outfall Number:	002		0
Method Date:	09/16/2021		
Option Used To Satisfy Requirement:	Volatile Solids Reduction		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):	>=38		
Results (if applicable):	60.80		
Outfall Number:	002		0
Method Date:	12/02/2021		
Option Used To Satisfy Requirement:	Volatile Solids Reduction		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):	>=38		
Results (if applicable):	47.70		
5.2 Was the limit exceeded or the process criteria not met at the time of land application? ○ Yes (40 Points) ● No If yes, what action was taken? N/A			
6. Biosolids Storage 6.1 How many days of actual, current biosolids storage capacity did your wastewater treatment facility have either on-site or off-site? ● >= 180 days (0 Points) ○ 150 - 179 days (10 Points) ○ 120 - 149 days (20 Points) ○ 90 - 119 days (30 Points) ○ < 90 days (40 Points) ○ N/A (0 Points) 6.2 If you checked N/A above, explain why.			
7. Issues 7.1 Describe any outstanding biosolids issues with treatment, use or overall management: No issues to report.			

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

Staffing and Preventative Maintenance (All Treatment Plants)

1. Plant Staffing 1.1 Was your wastewater treatment plant adequately staffed last year? ☐ Yes ☒ No If No, please explain: One vacant Operations Technician position open at the Wastewater Treatment Plant and two collection system technicians positions open on the Collection System side. Could use more help/staff for: Preventive Maintenance and routine maintenance on the collection system as well as at the Wastewater Treatment Plant. 1.2 Did your wastewater staff have adequate time to properly operate and maintain the plant and fulfill all wastewater management tasks including recordkeeping? ☐ Yes ☒ No If No, please explain: Not being fully staffed has made it difficult to complete and document preventive maintenance for both the collection system and at the wastewater treatment plant. Additional staff would be helpful to properly maintain both.	
2. Preventative Maintenance 2.1 Did your plant have a documented AND implemented plan for preventative maintenance on major equipment items? ☐ Yes (Continue with question 2) ☐ ☒ No (40 points) ☐ If No, please explain, then go to question 3: The spreadsheet that had been used prior to the plant upgrade was inadequate once new equipment was installed. A new asset management/work order program is expected to be implemented in 2022 as part of the plant upgrade. 2.2 Did this preventative maintenance program depict frequency of intervals, types of lubrication, and other tasks necessary for each piece of equipment? ☐ Yes ☐ No (10 points) 2.3 Were these preventative maintenance tasks, as well as major equipment repairs, recorded and filed so future maintenance problems can be assessed properly? ☐ Yes ☐ Paper file system ☐ Computer system ☐ Both paper and computer system ☐ No (10 points)	40
3. O&M Manual 3.1 Does your plant have a detailed O&M and Manufacturer Equipment Manuals that can be used as a reference when needed? ☒ Yes ☐ No	
4. Overall Maintenance /Repairs 4.1 Rate the overall maintenance of your wastewater plant. ☐ Excellent ☐ Very good	

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

☐ Good ☒ Fair ☐ Poor Describe your rating: With the plant upgrade going on preventive maintenance has been prioritized and completed on the equipment needing the most attention while servicing other equipment when time allows.	
--	--

Total Points Generated	40
Score (100 - Total Points Generated)	60
Section Grade	F

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

Operator Certification and Education

1. Operator-In-Charge

1.1 Did you have a designated operator-in-charge during the report year?

- Yes (0 points)
- No (20 points)

Name:

DAVID A ERICKSON

Certification No:

34268

0

2. Certification Requirements

2.1 In accordance with Chapter NR 114.56 and 114.57, Wisconsin Administrative Code, what level and subclass(es) were required for the operator-in-charge (OIC) to operate the wastewater treatment plant and what level and subclass(es) were held by the operator-in-charge?

Sub Class	SubClass Description	WWTP	OIC		
		Advanced	OIT	Basic	Advanced
A1	Suspended Growth Processes	X			X
A2	Attached Growth Processes				
A3	Recirculating Media Filters				
A4	Ponds, Lagoons and Natural				
A5	Anaerobic Treatment Of Liquid				
B	Solids Separation	X			X
C	Biological Solids/Sludges	X			X
P	Total Phosphorus	X			X
N	Total Nitrogen				
D	Disinfection	X			X
L	Laboratory	X			X
U	Unique Treatment Systems				
SS	Sanitary Sewage Collection	X	NA	NA	NA

0

2.2 Was the operator-in-charge certified at the appropriate level and subclass(es) to operate this plant? (Note: Certification in subclass SS is required 5 years after permit reissuance.)

- Yes (0 points)
- No (20 points)

3. Succession Planning

3.1 In the event of the loss of your designated operator-in-charge, did you have a contingency plan to ensure the continued proper operation and maintenance of the plant that includes one or more of the following options (check all that apply)?

- ☒ One or more additional certified operators on staff
- ☐ An arrangement with another certified operator
- ☐ An arrangement with another community with a certified operator
- ☐ An operator on staff who has an operator-in-training certificate for your plant and is expected to be certified within one year
- ☐ A consultant to serve as your certified operator
- ☐ None of the above (20 points)

If "None of the above" is selected, please explain:

0

4. Continuing Education Credits

4.1 If you had a designated operator-in-charge, was the operator-in-charge earning Continuing Education Credits at the following rates?

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

OIT and Basic Certification: ○ Averaging 6 or more CECs per year. ○ Averaging less than 6 CECs per year. Advanced Certification: ● Averaging 8 or more CECs per year. ○ Averaging less than 8 CECs per year.	
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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

Financial Management

1. Provider of Financial Information Name: Valerie Swanborg Telephone: 715-261-6646 (XXX) XXX-XXXX E-Mail Address (optional):		
2. Treatment Works Operating Revenues 2.1 Are User Charges or other revenues sufficient to cover O&M expenses for your wastewater treatment plant AND/OR collection system ? ● Yes (0 points) ☐ ☐ ○ No (40 points) If No, please explain: 2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised? Year: 2021 ● 0-2 years ago (0 points) ☐ ☐ ○ 3 or more years ago (20 points) ☐ ☐ ○ N/A (private facility) 2.3 Did you have a special account (e.g., CWFP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system? ● Yes (0 points) ○ No (40 points)		0
REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]		
3. Equipment Replacement Funds 3.1 When was the Equipment Replacement Fund last reviewed and/or revised? Year: 2021 ● 1-2 years ago (0 points) ☐ ☐ ○ 3 or more years ago (20 points) ☐ ☐ ○ N/A If N/A, please explain: 3.2 Equipment Replacement Fund Activity 3.2.1 Ending Balance Reported on Last Year's CMAR \$ 2,039,537.44 3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.) \$ 0.00 3.2.3 Adjusted January 1st Beginning Balance \$ 2,039,537.44 3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.) + \$ 184,534.57		

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*)

- \$ 0.00

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year

\$ 2,224,072.01

All Sources: This ending balance should include all Equipment Replacement Funds whether held in a bank account(s), certificate(s) of deposit, etc.

3.2.6.1 Indicate adjustments, equipment purchases, and/or major repairs from 3.2.5 above.

None

3.3 What amount should be in your Replacement Fund? \$ 1,663,576.00

0

Please note: If you had a CWWFP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the SectionInstructions link under Info header in the left-side menu.

3.3.1 Is the December 31 Ending Balance in your Replacement Fund above, (#3.2.6) equal to, or greater than the amount that should be in it (#3.3)?

● Yes

○ No

If No, please explain.

4. Future Planning

4.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating, or new construction of your treatment facility or collection system?

● Yes - If Yes, please provide major project information, if not already listed below. ☐ ☐

○ No

Project #	Project Description	Estimated Cost	Approximate Construction Year
1	Northwestern Lift Station	200000	2023
2	Sewer Sliplining (annual)	425000	2022
3	Crocker St. Lift Station	200000	2024
4	Lift Station Forcemain Cleaning	200000	2022
5	Interceptor Line MH Reconstruction	750000	2021
6	Airport Lift Station Bar Screen	300000	2020
7	Plant Upgrade Project	20000000	2020
8	Plant Upgrade Project	30000000	2021
9	Plant Upgrade Project	30000000	2022
10	Industrial Park LS Pump Addition	400000	2020
11	Greenwood Hills Lift Station	250,000	2023

5. Financial Management General Comments

N/A

ENERGY EFFICIENCY AND USE

6. Collection System

6.1 Energy Usage

6.1.1 Enter the monthly energy usage from the different energy sources:

COLLECTION SYSTEM PUMPAGE: Total Power Consumed

Number of Municipally Owned Pump/Lift Stations: 25

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	35,044	239
February	40,420	179
March	35,138	87
April	32,856	52
May	22,507	48
June	20,720	26
July	25,368	171
August	22,938	15
September	23,920	18
October	23,341	25
November	31,904	86
December	23,079	133
Total	337,235	1,079
Average	28,103	90

6.1.2 Comments:

6.2 Energy Related Processes and Equipment

6.2.1 Indicate equipment and practices utilized at your pump/lift stations (Check all that apply):

- ☒ Comminution or Screening
- ☐ Extended Shaft Pumps
- ☒ Flow Metering and Recording
- ☐ Pneumatic Pumping
- ☒ SCADA System
- ☒ Self-Priming Pumps
- ☒ Submersible Pumps
- ☒ Variable Speed Drives
- ☐ Other:

6.2.2 Comments:

6.3 Has an Energy Study been performed for your pump/lift stations?

☒ No

☐ Yes

Year:

By Whom:

Describe and Comment:

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

6.4 Future Energy Related Equipment

6.4.1 What energy efficient equipment or practices do you have planned for the future for your pump/lift stations?

New pumps, VFD's, and controls being installed when upgrades occur.

7. Treatment Facility

7.1 Energy Usage

7.1.1 Enter the monthly energy usage from the different energy sources:

TREATMENT PLANT: Total Power Consumed/Month

	Electricity Consumed (kWh)	Total Influent Flow (MG)	Electricity Consumed/Flow (kWh/MG)	Total Influent BOD (1000 lbs)	Electricity Consumed/Total Influent BOD (kWh/1000lbs)	Natural Gas Consumed (therms)
January	238,465	115.11	2,072	319.18	747	14,735
February	106,298	102.11	1,041	295.46	360	15,876
March	279,822	133.75	2,092	319.58	876	17,034
April	109,204	134.02	815	292.35	374	11,305
May	288,490	135.59	2,128	313.44	920	8,830
June	267,242	136.65	1,956	330.96	807	7,139
July	305,813	168.33	1,817	332.44	920	5,737
August	278,895	182.47	1,528	401.70	694	5,197
September	290,010	136.66	2,122	350.64	827	6,075
October	247,320	122.23	2,023	357.40	692	7,858
November	291,377	113.92	2,558	325.20	896	16,429
December	335,814	122.29	2,746	333.99	1,005	26,758
Total	3,038,750	1,603.13		3,972.34		142,973
Average	253,229	133.59	1,908	331.03	760	11,914

7.1.2 Comments:

Micro Turbines have been taken in and out of service during the plant upgrade which increased energy demand.

7.2 Energy Related Processes and Equipment

7.2.1 Indicate equipment and practices utilized at your treatment facility (Check all that apply):

- ☐ Aerobic Digestion
- ☒ Anaerobic Digestion
- ☒ Biological Phosphorus Removal
- ☐ Coarse Bubble Diffusers
- ☒ Dissolved O2 Monitoring and Aeration Control
- ☒ Effluent Pumping
- ☒ Fine Bubble Diffusers
- ☒ Influent Pumping
- ☒ Mechanical Sludge Processing
- ☐ Nitrification
- ☒ SCADA System
- ☒ UV Disinfection
- ☒ Variable Speed Drives

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

☐ Other:

7.2.2 Comments:

7.3 Future Energy Related Equipment

7.3.1 What energy efficient equipment or practices do you have planned for the future for your treatment facility?

New aeration basin blowers, pumps, belt filter presses, gravity belt thickeners, Disc Filtration, Ultra-violet disinfection, grit removal system and sludge screens.

8. Biogas Generation

8.1 Do you generate/produce biogas at your facility?

☐ No

☒ Yes

If Yes, how is the biogas used (Check all that apply):

☒ Flared Off

☒ Building Heat

☒ Process Heat

☒ Generate Electricity

☐ Other:

9. Energy Efficiency Study

9.1 Has an Energy Study been performed for your treatment facility?

☒ No

☐ Yes

☐ Entire facility

Year:

By Whom:

Describe and Comment:

☐ Part of the facility

Year:

By Whom:

Describe and Comment:

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

Sanitary Sewer Collection Systems

1. Capacity, Management, Operation, and Maintenance (CMOM) Program

1.1 Do you have a CMOM program that is being implemented?

- ☒ Yes
- ☐ No

If No, explain:

1.2 Do you have a CMOM program that contains all the applicable components and items according to Wisc. Adm Code NR 210.23 (4)?

- ☒ Yes
- ☐ No (30 points)
- ☐ N/A

If No or N/A, explain:

1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)

- ☒ Goals [NR 210.23 (4)(a)]

Describe the major goals you had for your collection system last year:

To maintain the collection system to avoid sewer backups and blockages. Preventive Maintenance of gravity mains by means of routine flushing. Access points were installed in 2021 for the 2022 Industrial Park Forcemain cleaning. Smoke testing performed on two basins identified as the most problematic I&I contributors.

Did you accomplish them?

- ☒ Yes
- ☐ No

If No, explain:

- ☒ Organization [NR 210.23 (4) (b)] ☐ ☐

Does this chapter of your CMOM include:

- ☒ Organizational structure and positions (eg. organizational chart and position descriptions)
- ☒ Internal and external lines of communication responsibilities
- ☒ Person(s) responsible for reporting overflow events to the department and the public

- ☒ Legal Authority [NR 210.23 (4) (c)]

What is the legally binding document that regulates the use of your sewer system?

Wausau Municipal Code Ch 13

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2009-09-06

Does your sewer use ordinance or other legally binding document address the following:

- ☒ Private property inflow and infiltration
- ☒ New sewer and building sewer design, construction, installation, testing and inspection
- ☐ Rehabilitated sewer and lift station installation, testing and inspection
- ☐ Sewage flows satellite system and large private users are monitored and controlled, as necessary
- ☐ Fat, oil and grease control
- ☒ Enforcement procedures for sewer use non-compliance

- ☒ Operation and Maintenance [NR 210.23 (4) (d)]

Does your operation and maintenance program and equipment include the following:

- ☒ Equipment and replacement part inventories

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

- ☒ Up-to-date sewer system map
- ☒ A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation
- ☒ A description of routine operation and maintenance activities (see question 2 below)
- ☐ Capacity assessment program
- ☒ Basement back assessment and correction
- ☒ Regular O&M training

☒ Design and Performance Provisions [NR 210.23 (4) (e)] ☐ ☐

What standards and procedures are established for the design, construction, and inspection of the sewer collection system, including building sewers and interceptor sewers on private property?

- ☒ State Plumbing Code, DNR NR 110 Standards and/or local Municipal Code Requirements
- ☒ Construction, Inspection, and Testing
- ☐ Others:

☒ Overflow Emergency Response Plan [NR 210.23 (4) (f)] ☐ ☐

Does your emergency response capability include:

- ☒ Responsible personnel communication procedures
- ☒ Response order, timing and clean-up
- ☒ Public notification protocols
- ☒ Training
- ☐ Emergency operation protocols and implementation procedures

☒ Annual Self-Auditing of your CMOM Program [NR 210.23 (5)] ☐ ☐

☒ Special Studies Last Year (check only those that apply):

- ☒ Infiltration/Inflow (I/I) Analysis
- ☐ Sewer System Evaluation Survey (SSES)
- ☐ Sewer Evaluation and Capacity Management Plan (SECAP)
- ☐ Lift Station Evaluation Report
- ☒ Others:

0

2. Operation and Maintenance

2.1 Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained.

Cleaning	55	% of system/year
Root removal	5.3	% of system/year
Flow monitoring	0	% of system/year
Smoke testing	6.2	% of system/year
Sewer line televising	10	% of system/year
Manhole inspections	21	% of system/year
Lift station O&M	2	# per L.S./year
Manhole rehabilitation	0.56	% of manholes rehabbed
Mainline rehabilitation	0.021	% of sewer lines rehabbed
Private sewer inspections		

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

Private sewer I/I removal	0	% of system/year
River or water crossings	0	% of private services
	9.2	% of pipe crossings evaluated or maintained
Please include additional comments about your sanitary sewer collection system below:		
Washington Street Syphon was jetted. This syphon has been redesigned and construction is projected to commence late 2022 or early 2023.		

3. Performance Indicators

3.1 Provide the following collection system and flow information for the past year.

42.73	Total actual amount of precipitation last year in inches
32.41	Annual average precipitation (for your location)
232.06	Miles of sanitary sewer
25	Number of lift stations
0	Number of lift station failures
1	Number of sewer pipe failures
4	Number of basement backup occurrences
80	Number of complaints
4.3856	Average daily flow in MGD (if available)
5.8862	Peak monthly flow in MGD (if available)
	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

0.00	Lift station failures (failures/year)
0.00	Sewer pipe failures (pipe failures/sewer mile/yr)
0.00	Sanitary sewer overflows (number/sewer mile/yr)
0.02	Basement backups (number/sewer mile)
0.34	Complaints (number/sewer mile)
1.3	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
0.0	Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OVERFLOWS REPORTED **			
Date	Location	Cause	Estimated Volume
None reported			

** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.

5. Infiltration / Inflow (I/I)

5.1 Was infiltration/inflow (I/I) significant in your community last year?

☒ Yes

☐ No

If Yes, please describe:

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:

5/31/2022

2021

Flows to the treatment facility would rise during high rainfall events indicating that I&I was a factor to the higher flow rates. Since the Sturgeon Eddy syphon has replaced, I&I has lessened greatly and flows have not increased significantly during high rain events. Smoke testing has identified a couple areas where I&I was coming from. These areas will be inspected and assessed in the future.

5.2 Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?

☐ Yes

☒ No

If Yes, please describe:

5.3 Explain any infiltration/inflow (I/I) changes this year from previous years:

Remained the same as previous year.

5.4 What is being done to address infiltration/inflow in your collection system?

manhole inspections and sewer televising to locate problematic areas.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 **2021**

Grading Summary

WPDES No: 0025739

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Influent	A	4	3	12
BOD/CBOD	A	4	10	40
TSS	A	4	5	20
Phosphorus	A	4	3	12
Biosolids	A	4	5	20
Staffing/PM	F	0	1	0
OpCert	A	4	1	4
Financial	A	4	1	4
Collection	A	4	3	12
TOTALS			32	124
GRADE POINT AVERAGE (GPA) = 3.88				

Notes:

A = Voluntary Range (Response Optional)

B = Voluntary Range (Response Optional)

C = Recommendation Range (Response Required)

D = Action Range (Response Required)

F = Action Range (Response Required)

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/31/2022 2021

Resolution or Owner's Statement

Name of Governing
Body or Owner:

Date of Resolution or
Action Taken:

Resolution Number:

Date of Submittal:

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F):

Influent Flow and Loadings: Grade = A

Effluent Quality: BOD: Grade = A

Effluent Quality: TSS: Grade = A

Effluent Quality: Phosphorus: Grade = A

Biosolids Quality and Management: Grade = A

Staffing: Grade = F

The vacant wastewater and collection system positions have been challenging to fill. Vacant positions have been advertised with no qualified applicants received. The City is hopeful to fill these positions in 2022 to become fully staffed once again. The Utility will continue to recruit and advertise all vacant positions and monitor future staffing needs.

Operator Certification: Grade = A

Financial Management: Grade = A

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS

(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

G.P.A. = 3.88



TO: Wausau Waterworks Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: May 3, 2022

SUBJECT: Staffing Shortages – Ongoing and Concerning

Update on staffing shortages and implications

- The utility has been short staffed in some capacity now going on over two years. This has continued to result in deferring O&M and struggles meeting compliance requirements for both W&WW in 2022. The shortage of staffing has resulted in lack of maintenance on the collection/distribution systems with more expenditures for contracted emergency work and delays in getting started/scheduling our annual routine work to meet compliance. Job descriptions have been reduced to just about bare bones, meaning our applicants are coming o with no experience. We continue to advertise with CDL requirements for wastewater because we only have four on the collection crew when fully staffed. These are skilled labor positions and there must be some minimum qualifications to know individuals have an aptitude and ability to learn with this type of work. The city council has waived wage Steps 1&2 and allowed minimum pay to start at step 3 in a 17 step pay scale. There was also a decision made to advance employees (who are below mid-point) two steps a year instead of one, so they may reach midpoint sooner and help with recruitment. Both of these actions are positive but have not been enough for us to fill our positions. It is imperative we fill these positions to stabilize our workforce in order to get back on routine O&M schedules. Retention of our longer term employees is also critical to stabilizing the work force, we need to find ways to incentivize them to stay with the utility and the best way to do this is through wages that are competitive with other utilities/municipalities.

Stabilized Work Force

- We have spoken about apprenticeship programs and establishing these programs for training and succession planning but without a fully staffed work force in place we cannot adequately implement an apprenticeship program. Once the work force is stabilized, we would be able to start looking at possible apprenticeship programs and other opportunities to help build and improve our capability of O&M at the utility. Even our summer/seasonal positions we are unable to fill, again our wages are low. We are looking at contracting out our mowing and landscape operations this year because we will not be able to keep up with this work without seasonal staff.
- I have compared our utility skilled labor position wages with salary studies from AWWA (2019 & 2020 surveys) and WI Rural Water (2019 & 2021 surveys) to determine what, if any disparity, we are seeing. As the largest utility in the region we should be leading the way when it comes to skills, qualifications and wages and we should strive to be the leader within the metropolitan area. Comparing our skilled labor workforce to these

surveys we are and have been below the average wage for similar positions. As we move forward this will continue to be a larger disparity unless we make a commitment to start advancing wages and keeping up with market. The next wage study will not be implemented until 2024 so there is another 2-years before progress on wages will be made within the utility.

- 5-6 years between wage studies with no action or on increasing/supporting annual increases will continue to leave us well behind the rest of the workforce. This is very similar to how we manage our rate structure, the commission implements small rate increases as needed between rate cases to avoid large incremental rate increases when rate cases are considered by the PSC. We need to move this practice to our staff wages, staff is the largest and most important asset in the City.

City Job Title	City Current Pay (Mid-Point)	AWWA 2020 Comp Survey (Mid-Point)	AWWA 2020 Comp Survey (Average)	2019 WI Rural Water	2021 WI Rural Water	Ave Difference of City Pay
Water Superintendent	\$37.74	\$46.15	\$47.01	\$40.36	\$44.28	(\$6.71)
WW Superintendent	\$37.74	\$46.15	\$47.01	\$40.36	\$44.28	(\$6.71)
Water Supervisor	\$28.85	\$40.19	\$40.18	\$40.36	\$44.28	(\$12.41)
WW Supervisor	\$28.85	\$40.19	\$40.18	\$40.36	\$44.28	(\$12.41)
Water Plant Operator	\$25.77	\$31.30	\$31.77	\$27.87	\$29.11	(\$4.24)
WW Lab tech	\$25.77	\$39.09	\$31.77	\$27.87	\$29.11	(\$6.19)
Sr. Water Distr. Maintainer	\$25.77	\$29.57	\$32.93	\$27.87	\$29.11	(\$4.10)
Sr. WW Collection Maintainer	\$25.77	\$29.57	\$32.93	\$27.87	\$29.11	(\$4.10)
Sewer Maintainer	\$24.09	\$26.73	\$28.84	\$27.87	\$29.11	(\$4.05)
Water Maintainer	\$24.09	\$26.73	\$28.84	\$27.87	\$29.11	(\$4.05)
Plant Mechanic (Sewer)	\$25.77	\$28.13	\$26.96	\$27.87	\$29.11	(\$2.25)
Plant tech. (Water)	\$25.77	\$28.13	\$26.96	\$27.87	\$29.11	(\$2.25)
Admins	\$21.97	\$21.49	\$20.39	\$24.83	\$26.17	(\$1.25)

City current market rate or mid-point pay was compared to the national AWWA Survey and the state of WI Rural Water wage survey. The wages for the AWWA and WI surveys were averaged and then compared to the current City pay mid-point.