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 **Monday, January 9th, 2023.**

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

AGENDA

1. Approve Minutes of December 6th 2022 Meeting.
2. Director's Report on Utility Operations
   - Water and Wastewater Projects Summary
   - Drinking Water Facility- Online December 20, 2022
   - Proposed Drinking Water Rate Case Submitted to Public Service Commission for Review
   - Proposed Sewer Rate Increase for 2023 and 2024 as Recommended by Ehlers
   - Granular Activated Carbon (GAC) Design Draft Plan
   - GAC System- Submission for Special Project Funding
   - Drinking Water Facility Update
   - Drinking Water Senior Water Plant Operation Technician Retiring
   - Wastewater Facility Update
   - Wastewater Collection System Technician (Sewer Maintainer) Vacant again
   - Wastewater Plant Operations Supervisor- Interviews Commenced
   - Wastewater Hiring/Training Continues to be Challenging
   - Wastewater Veolia Biosolids Dryer
   - Wastewater Veolia/Krueger Hydrotech Disc Filters
3. Presentation by Baker Tilly on the Staffing Needs Assessment.
4. Discussion and Possible Action on a Pilot Study LSL Replacement Project for 2023.
5. Discussion on Status of the Granular Activated Carbon (GAC) Treatment Process and Possible Funding.

Adjourn.

Next meeting scheduled for **February 7th 2023 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: January 6th, 2023 at 12:00 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 December 6th, 2022

A meeting of the Wausau Water Works Commission was called to order at 1:30 p.m. in City Hall on Tuesday, December 6th, 2022. In compliance with Wisconsin Statutes, this meeting was posted and receipted for by the Wausau Daily Herald on December 1, 2022.

Members Present: President Rosenberg, Commissioners Herbst, Gehin, Force
Others Present: Eric Lindman, Ben Brooks, Valerie Swanborg, MaryAnne Groat, Joe Kafczynski/ Becher-Hoppe, Tonia Westphal/Clark-Dietz
Via WebEx: Commissioner Robinson, Brian Roemer/Ehlers, Philip Cosson/Ehlers, Susan Wojtkiewicz/Donohue

1) **Approve Minutes of November 1st, 2022 Meeting.**

Force questioned if the Wastewater biosolids would be classified as Class A.

Brooks replied DNR needed a 4-week test data collection before determining, so hopefully we'll know something by January.

Herbst motioned to approve minutes. Seconded by Gehin.

Motion Carried 4-0.

3) **Presentation by Ehlers on Utility Financials and User Rates.** ***(This item was taken out of Agenda Order)***

Roemer began the presentation starting at page 17 in the packet.

Robinson questioned rate adjustments relative to income.

Roemer replied the Public Service Commission (PSC) through cost of service study identifies the cost components of the system and applies meter equivalency units. The utility could propose different forms of recovering costs through higher/lower fixed charges but comes with extra costs to have someone provide those studies to accomplish goals.

Robinson questioned the 65% increase and impact it would have on the long-term finances of the Utility as our water revenues were below average year to date and how would it effect liability going forward with utilization in terms of needs. He questioned the impact of attraction/ retention of users at this rate and questioned if the $17 million be floated through the revenue bond where the GAC project offsets potential outside funding sources and if grants would reduce that? So with a $16 million project, we get $5 million from State, $5 million from Federal and reduced cost to $6 million, what does that do to our future rates as we move into the GAC system, Corrosion Control Study (CCT), Lead Service Line (LSL) replacements, how would that impact this study?

Roemer replied the rate adjustment beginning of this year included less asset, it was closer to 40% but now we have another year of asset that includes another year of depreciation. The rate of return benchmark used at that time was 5%, with that rate change overturn of 6.5% from PSC math 2-3 years ago versus now. The use of cash fiscal year 2022 reserves are depleted and Moody's (rating agency) has spoken to credit worthiness of enterprise and identifies potential negative outlook without a rate adjustment. The 65% adjustment gets you to the various

benchmarks that would be fiscally sustainable. It's our opinion that 65% is needed using Moody's and PSC's 6.5% rate of return, not using anything above or below that. Should O&M (Operations and Maintenance) expenses be reduced and if less usage than the O&M should be reduced. You'll have the new water facility so it would be expected that the capital investment added beyond this plan should be relatively minimal compared to the $40 million and $17 million investment that have been taken on for treatment. In packet material table 5 through 7, GAC project was assumed to be funded 100% from Utility- meaning no Grant funding. The $17 million coming from the Safe Drinking Water Loan Program would receive principal forgiveness or Grant funding due to the Bipartisan Infrastructure Law and emerging contaminants that the DNR would be annually applying to that program. Grant funding would not change that 65%. The mobility downward would be not doing the simplified increases 2025, 2027. The 65% is set based on current assets and financial position, less debt services result of additional grant funding would reduce future adjustments as shown in the first 5 years of the plan. Percentage is based on what PSC determines as needed based on their math, long term plan would be that this could pay for those items moving forward.

Robinson questioned if the $300k year/ Utility expense were adequate or if it should be adjusted and how that would affect the rejected simplified rate increase request? Are we anticipating any future costs for corrosion control and its implementation?

Lindman replied the $300k in the capital budget was for the public side in anticipation of breaks and leaks, not scheduled replacements, some years we don't use much, other years we use more. The scheduled replacements are in our street reconstruction projects. There would be cost upwards of $200k-$250k to establish lead line loops and testing but we don't have those costs yet. We could build those into the capital budget plan if we have some estimated budget costs from the Engineers but I don't have those at this point.

Force stated the 65% increase is a huge burden for our lower income earning less than $50,000 year. We should be promoting the low-income water user's assistance program. We had discussed in the past, lower users paying more per gallon than higher end users. Have we done any other studies or considered making any changes? We have put in place our Water Savvy program that offers suggestions and helpful hints on how people can save on money with water usage.

Lindman replied conversations were made to see if we could establish custom rates and/or make an additional bracket. At this point, we know we need the 65% implemented to pay for costs already committed too and mandates put on the utility by the State. We've also had discussions on moving billing from quarterly to monthly but that would require another rate case.

Rosenberg stated it does require an extra step and pointed out that we spent the money so we have to pay for it.

Robinson reiterated paying for what we've done versus a compliance issue, granted some of those were built into the facility but let's not confuse it with PFAS removal and other costs. How much flexibility do we have relative to the rate increase, what goes into the PSC, is it the overall rate increase of 65% or is there an ability to adjust fixed charges and rate within that or would we be locked into what is submitted on December 15th?

Roemer stated on December 15th your information would be supplied as discussed on the requested revenue change, after PSC conducts audits on O&M costs, how asset addition looks, then they give you final determination of revenue change of whether it should be the 65% or if it moves up or down. The process takes about 6 weeks, after that, Staff members of the PSC completes a cost of service end rate design that takes the revenue adjustment and applies that across customer categories. The city can choose to supply their own cost of service/ rate design that they have whether it be lowering fixed charge, applying another rate block so that you have a cheaper rate block for smaller usage amounts but that comes with an additional 2 months of review by PSC for each of those components. Each time you request more things outside of PSC's normality, those deviations cost delays. It was our initial intent to have investigations into that

lower usage category, what can the rate block be and that could be included at a future review with the PSC, but to get to the financial point that we would like under the current assets added such as the drinking water facility would be to forgo that and continue with the PSCs recommendation. We could apply for additional items but that would be outside of PSC's normal review process.

Robinson questioned if there were any industries at risk if we have this significant increase, and review the public hearing process or modify our rate request subject to extension of time?

Lindman replied there have not been any that contacted us but there would be a public hearing the PSC establishes for the proposed rate increase, and any comments will go back to the PSC and here to the Commission.

Roemer explained the PSC staff puts in their opinion through the revenue requirement certifying the 65%, the other staff members put forth cost service rate designs, that's when the public hearing notice decision is determined and all online comments are received through media and mail. Then the division administrator determines if they agree with PSC staff or the Commission could take over the case but the Commission is designed so that they don't ruin themselves procedurally and tend to agree with PSC staff in terms of what their recommendations are unless there is someone that brings forth a legal challenge.

Groat explained proactive steps were taken to facilitate affordability of both projects in Water and Wastewater. We approved ARPA funding for Capital plan 2023 Water and Wastewater, street projects and engineering studies underway. The Finance Committee approved and this will go to Council next Tuesday to fund 2022 Capital out of ARPA that's why the study won't be submitted until the 15th. We are awaiting Council's decision. The rate increase would be much higher if we hadn't taken these steps along with freezing the PILOT payment this year, next year and future years. There is danger in tinkering with the rates as you recall you tinkered with the rates last time and that contributed to the negative cash positions that we are in today. Rate increases are hard to approve because of the difficulty to show the need to the taxpayers and consumers but plant improvements were necessary and will ensure our ability to provide services, so we need to pass those on. Robinson pointed out there are improvements lurking in the future and we need to be positioned to manage them. Force brought up we could do things to promote the low-income water assistance program better, marketing can be a huge part of how much usage you receive out of something like that and we've been with the program ever since they implemented it. We don't know what the future holds and not enough revenue could undermine the City and Moody's rate concerns could impact the future.

Robinson pointed that tinkering of the rates were on the Sewer side looking at the deferral of the increase. We asked at the time if it would impact the cash flow and were told no.

Gehin stated he was glad we moved both projects at the same time as we were fighting alignment of the drinking water grant program because Waukesha was going to take that money and we had to move forward and got the money as cheap as we could get it. I know a vendor that said it was a good thing we bid the projects when we did because we could add a 15% increase and now you may or may not be getting the equipment as scheduled. Could you imagine if we didn't move the advancement of the water plant because we wouldn't have been able to meet the challenges of the PFAS in a timely manner. We have to meet the challenges and the costs we have to pass on.

No Action Taken.

2) Director's Report on Utility Operations.

Director's Report Placed on File.

4) Update on Construction of the Water Treatment Facility.

Lindman began per memo in the packet a lot of progress was made in a month. There are some automations ongoing. Tomorrow water would be running at high capacity for an 8-hour

period and we'll be taking samples to show adequate treatment at high capacity. Chemical feeding automations would be tested today through rest of week. Filter adjustments and levels are still being made for total organic carbon removal and anion exchange. Some adjustments are being made for the backwashing. We are on track to meet substantial completion by the end of the week. Beyond that, we have 5 water main connections to be made that will be discussed for work schedules such as days and crews needed on site and final automations, PLC changeovers and final provisions for setting a time to shut the old plant down and turn on the new facility.

Rosenberg requested what the level of PFAS testing were for the new plant?

Lindman replied we are testing once a week at this point and we are at a non-detectable level. All water running through the plant is going to the stormwater pond until we begin pumping water into the system.

Force questioned if there were still customers on temporary water.

Lindman replied we had an issue with a section in the water main with an unusual bacteria that the DNR hasn't seen. We are going to have to use an acid to clean it out, flush it and put it back in service and we don't have a timeline at this point.

No Action Taken.

5) Update on Construction of the Wastewater Treatment Facility.

Brooks updated that the dryer was starting up and will go into a 4-week testing period then DNR will be onsite to do a final inspection and review the data collected. Disc filters performance tests have been placed on hold due to issues with the breaker but the Engineers and Contractors are working on it, once resolved, we will run a performance test on the disc filters for the removal of the total phosphorus. We are producing quality effluent and working through issues with the boilers. We've been using natural gas rather than biogas due to issues with the boilers but are still using biogas for the microturbines to produce and offset electric usage. Chemical systems are working fine.

Force questioned what we were getting with the phosphorus removal process not online as far as the effluent if we were under the permitted level?

Brooks replied the limits are 34 pounds per month on average and we are using chemical alum with some biological phosphorus removal. With process manipulation can do biological removal. Depending on the flow, our limit is between 0.3 and 0.6 parts per million and we are able to stay under the 34 pounds per month on average.

No Action Taken.

6) Discussion and Possible Action Creating a Drinking Water Treatment Facility Solar Array Project Task Force.

Rosenberg began this was requested and the packet enclosed listed the mission, duties and responsibilities of potential members with an end date on or before March 5th, 2024.

Robinson reiterated that this was a good idea engaging the community and evaluating it to get a good dialogue moving forward with the community and neighborhood concerns.

Rosenberg stated the idea is to take input from stakeholders, people who are interested in this project, one alderperson and one council member to study what this solar array would look like, benefits and challenges.

Force motioned to accept this proposal of creating a drinking water treatment facility solar array task force. Seconded by Herbst

Motion Carried 4-0.

7) Discussion and Possible Action on Amendments to the Water and Wastewater 5-Year Capital Projects Plan.

Lindman stated the council approved of ARPA funds for 2023 projects so amendments

were made to the Capital Projects as this will reduce the required borrowing. Groat noted, the Council will decide whether the 2022 Capital Projects would also be funded through ARPA that would help the Utility's cash flow position. We've also applied for a dozen Water and Wastewater projects through Bipartisan Infrastructure Law (BIL) funding through the DNR. The hope is that we would be considered for principal forgiveness but there may still be a city contribution that would have to be made from other fund sources through the utility itself or other funding source. Projects have been submitted via the Intent to Apply (ITA) and we'll have to do applications as required through the process.

Rosenberg stated we may also see the Inflation Reduction Act (IRA).

Gehin moved to accept the changes recommended for the 5-Year Capital Project plan. Seconded by Force.

Motion Carried 4-0.

8) Discussion and Update on the 2022 Wastewater Compliance Inspection.

a. Wastewater Compliance Inspection Report received November 14, 2022 and reviewed

b. Written Response to Compliance Inspection Report submitted November 22, 2022

Brooks began that the inspection was completed with Nick Lindstrom from DNR and a follow up letter was received and a written response was made with a couple minor items to address such as the pathway to the outfall needed clearing so we went out and cleared a path. The other one was the lab data/ reporting error that was supposed to be reported in micrograms per liter but was reported in milligrams per liter; that's been collected and revised so we are just waiting for their response to close the inspection case.

Robinson questioned the flagged item regarding the staffing shortage.

Brooks replied we are fully staffed in the collection and wastewater side, the study from Baker Tilly stated we needed more staff but that should be coming in January.

Lindman reiterated that Baker Tilly submitted a draft staffing analysis and will be here in January to present their findings.

No Action Taken.

9) Discussion Regarding our Next Meeting Date due to New Year's Day Observance, Monday January 2nd, 2023.

Rosenberg questioned if Monday, January 9th, 2023, would work and it looks like we are all nodding so we are good to go with the 9th.

Force requested that we update the website and make the water plant more prominent.

10) Adjourn.

Gehin motioned to adjourn. Seconded by Herbst.

Motion carried 4-0.

WAUSAU WATER WORKS

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 – January 2023

- Both the Drinking Water and Wastewater projects are moving closer to final completion. Both of these projects have been managed very well by utility staff, both are within the budget approved by city council in 2019 and both projects set the city up to meet new and proposed regulations while being able to significantly improve drinking water quality and wastewater effluent quality. These projects have been under construction for over 2-years and utility staff has done an outstanding job overseeing/managing these projects while still performing day to day duties. Their ability to perform at this level for such a long period of time has been nothing less than outstanding!

- The Drinking Water Facility went online on December 20, 2022. The facility is performing well with staff and engineers continuing to optimize and make adjustments to treatment processes. I live on the SE side of the city and I can see the improved water quality as there is no longer any color in the water. Miron construction continues to work on addressing punch-list items. The final walk through of the facility to establish an official punch-list was completed on January 3, 2023. Programming continues to be updated as needed and issues are addressed on communications as they arise. There continues to be issues with the chemical feed system automation as well which has been slow to progress.

- The proposed water rate case was submitted to the Public Service commission (PSC) for their review and rate determination. This is for the drinking water only and it is estimated to be about $200 per year for an average residential customer. A comparison chart to some of the other utilities in the state is provided. This chart is not all encompassing but are the same utilities we used in the past to compare our rates and we

wanted to stay consistent. According to the American Water Works Association 2021 Rate study (2019 & 2020 rates) the average quarterly bill for similar sized system is $93 without the Public Fire Protection charge. Based on the proposed rate, Wausau seems to be about 8-10% above the average rates nationwide based on 2020 rates; the next national study is expected to reflect increased averages across all utilities. Talking with the PSC there are some of the utilities on the attached chart who have or will soon be submitting rate cases.

- The proposed sewer rate increases for 2023 and 2024, as recommended by Ehler's, will also need to be considered. According to the policy adopted by the Commission in 2019/2020 a Public Hearing will need to be held related to the rate increases. It is proposed to hold the Public Hearing at the February 7, 2023 Utility Commission Meeting. Staff will provide public notices related to the proposed sewer rate increases in 2023 and 2024, 5% and 10% respectively.

- The design of the PFAS removal system, Granular Activated Carbon (GAC), has been moving forward and a draft plan set and specifications will be ready for review in January.

- For the GAC system, City Staff submitted a request for special project funding through Senator Baldwin's office in the amount of $20 million. Baldwin's office proposed $1.67 million be allocated for Wausau GAC treatment for PFAS removal and this amount was passed in the federal budget. City Staff has also requested funding through the Emerging Contaminant funds being allocated through the WDNR, we requested for both 2023 and 2024 funding allocation and are waiting a response. City Staff requested safe drinking water funding which includes forgivable loan through the WDNR. Funding on all accounts is still pending at this time. Senator Baldwin has contacted the city and stated the Senator will be in Wausau on January 13 to hold a press conference and tour the drinking water facility.

WATER DIVISION

1. Drinking Water Treatment Facility Update: See attached.

2. Senior Water Plant Operation Technician, Kevin Behnke has provided notice of retirement. His last day will be July 14th 2023. We wish him well in his future endeavors.

WASTEWATER DIVISION

1. The Wastewater Treatment Plant continues to operate well and is discharging a quality effluent.

2. Collection System Technician (Sewer Maintainer): There has become a job vacancy for a Collection System Technician once again. Advertising for this vacant position will

commence in January of 2023.

3. Wastewater Plant Operations Supervisor: Advertising for this position closed on December 9, 2022 receiving two qualified candidates. Interviews were commenced December 29, 2022.

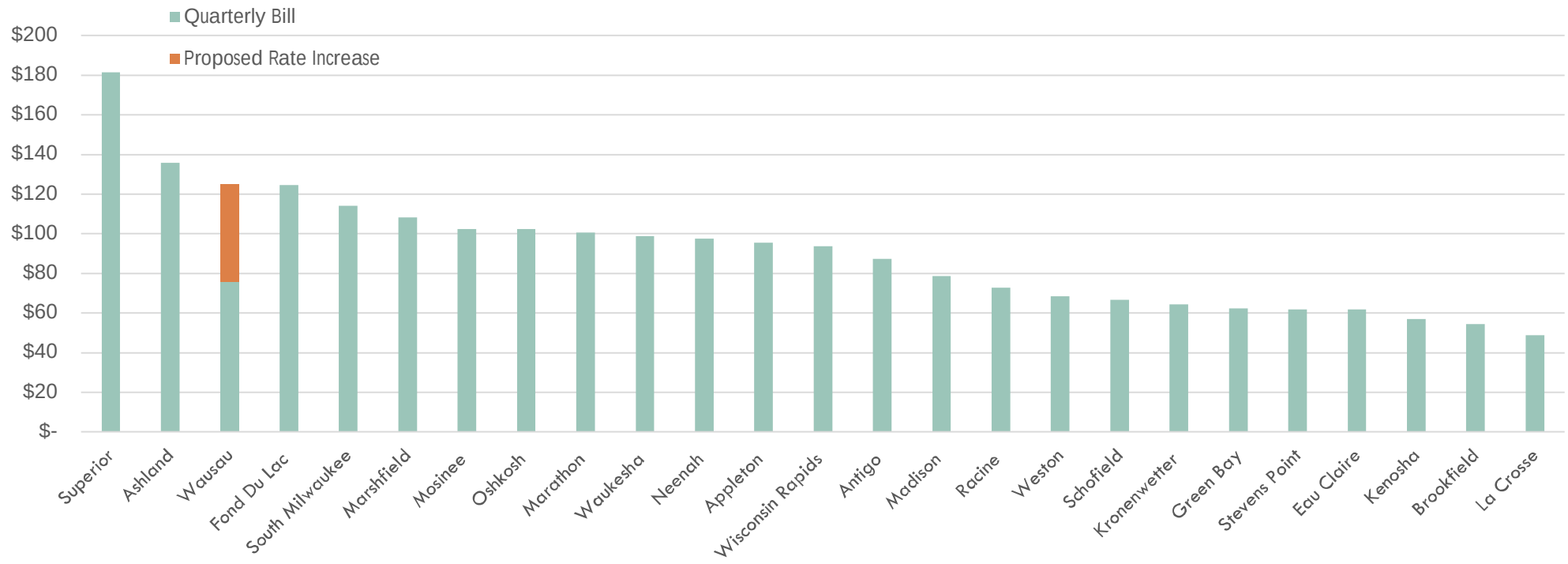
4. Hiring and training of new staff continues to be a challenge for the utility. These positions require in depth knowledge of complex treatment processes and equipment being used and it takes a great amount of time to train to a level that new staff can operate equipment confidently and take the on-call status.

5. Veolia Biosolids Dryer: The four-week data collection of Class A sludge produced by the Veolia Dryer commenced on December 8, 2022. Data collection will continue until four weeks of sludge data has been collected. WDNR representative Fred Hegemen, along with Donohue staff, are scheduled to be on site January 3, 2023 at 10:00 AM for the Dryer inspection and review of sludge data collected.

6. Veolia/Kruger Hydrotech Disc Filters: Awaiting the Seven-day performance testing of the disc filters and chemical phosphorus removal system. The issue with the electrical breaker tripping has been resolved and performance testing of disc filters is scheduled for the week of January 2, 2023.

Water Rate Comparison

Quarterly Bill Representative of Typical Wausau Residential User = 52 CCF per year and including Public Fire Protection charges



Wausau Drinking Water Treatment Facility - Project Status

January 2023 Commission Meeting

Drinking Water Treatment Facility

On Tuesday, December 20, 2022, at approximately 4:45 pm, the New City of Wausau Drinking Water Treatment Facility began supplying treated water to the City of Wausau.

While the new facility is up and running, there are still a number of items that need to be completed to close out this project. The Contractor is currently working through punch list items and final cleaning of the facility.

The final three water main connections between the new Drinking Water Treatment Facility and the distribution system took place during the weeks of December 12th and 19th. One final water main connection will take place during the week of January 2nd to connect the last remaining City water supply Well, Well No. 7, to the new facility.

A timeline of the project was included in the last project status update. We have updated this timeline which includes the original timeline, revised timeline for the Ductile Iron Fitting Delays, the October 2022 proposed timeline, and an updated timeline are summarized below:

Milestones	**Original Contract Timeline**	**Ductile Iron Fitting Delays Revised Timeline**	**October 2022 Proposed Timeline**
Contract Signed	May 2020		
Construction Start	June 2020		
DWTF Start Up Complete	February 2022	September 2022	December 2022
Original Contract included a 5-month window for plant operation by DWTF staff before pumping to city system		*Compressed*	
Substantial Completion	August 2022	October 2022	January 2023
Follow up visits by mfg. reps After plant operates 8-12 weeks		*Compressed*	
Final Completion	October 2022	November 2022	March 2023
WDNR Deadline	Dec. 31, 2022		

Updated Timeline (December 28, 2022):

December 2022

- Completed process train adjustments, chemical system changes, and filter performance runs on December 8, 2022.
- Substantial Completion issued on December 9, 2022.
- 3 of 4 final water main connections took place the weeks of December 12 though December 19, 2022.
- Safe water testing December 19 and 20, 2022.
- Water supplied to the Cities water Distribution System from New Facility December 20, 2022.
- December 20, 2022, City staff began operating facility.

Early January 2023

- Complete final water main connection to bring Well 7 to the new facility the week of January 2, 2023.
- Contractor will continue working through punch list items and final clean up.

February 2023

- Complete equipment manufacturer follow-up visits (after 8-12 weeks operation).

Spring 2023

- Contractor will complete final restoration of site and winter water main connection areas.
- Project completion and closeout.

Final Treated Water Main Connection to the Cities Water Distribution System

Drinking Water Treatment Facility Lab Analyzers and Equipment

Influent Water to Top of Greensand Filters Post Aeration and Clarification

Aerial of Site Taken November 28, 2022

Ice formations from discharging treated water to the surface during Facility start up. Discharging large amounts of water on site is no longer needed now that the Facility is supplying water to the Cities water distribution system.

Project Status Report

Wastewater Treatment Facility Improvements Project – Engineer During Construction

City of Wausau, Wisconsin

Donohue Project Number 13229

Period | November 6, 2022 – December 10, 2022

Invoice 66

Engineer Activities This Period

- Construction administration services related to technical review of contractor shop drawings, responding to contract interpretation questions (RFIs), initiating requests for proposals (RFPs), attending weekly and monthly construction progress meetings, processing work changes to the contract, and contractor monthly payment requests.
- Prepared and submitted Clean Water Fund disbursement request and provided CWF administration.
- Provided part-time Resident Project Representative (RPR).
- Provided part time on-site observation of selected work by Becher-Hoppe.
- Prepared Work Change Directives and RFPs to address unforeseen work that needed to be expedited to allow the Contractor to maintain their construction scheduled progress.
- The Engineer's application engineering staff working on fine tuning the various systems as unit process systems are being operated.
- Change Order 24 executed by Contractor and Engineer
- In process of developing Change Orders 25 to Contractor for review.
- Preparing SOPs and Training materials. Assisting with process startups.
- Preparing final Certificates of Substantial Completion for issue for those process systems that the Owner has begun to operate.
- Working thru review of completed punch list items.

Engineer Near-Term Activities

- As the project proceeds, the engineer will continue to provide construction administration services including responding to RFIs, preparing RFPs, attending weekly and monthly construction progress meetings, processing change orders, reviewing contractor payment requests, and providing full-time on-site resident engineering services.
- Application Engineering programming to fine tune operations.
- Review completed punch list items.

Contractor Progress to Date

- The Notice to Proceed with Construction was issued to the Contractor on June 18, 2020 and established the final completion date as June 3, 2023.

- Construction on the improvements to the Wastewater Treatment Facility (WWTF) began on July 6, 2020.

- Structure 100 (Main Building):
  - Lift station communications working well and final tune up of SCADA work is ongoing.
  - Quality roofing working on punch list items.
  - Masonry wall at the lower level connection of Tunnel 900 to Structure 100 completed, final grouting, piping/conduit sealing and sealing of wall to be completed.
  - Final electrical demo continuing throughout structure. Van Ert Electric continuing with conduit and wiring pulling.
  - Tile floor fill in completed in the raw wastewater (RWW) pump room, now working on punch list items.
  - Currently, all contractors working on punch list items, clean up and final tasks being worked on throughout the structure.

- Structure 110 (Vehicle Storage Garage) – Construction completed on the entrance gates, east and west of Structure 110. Electrical work and gate card reader needs to be installed and completed.

- Structure 120 (Administration Building) – Landscaping now complete around structure; remaining punchlist items are in process of being completed.

- Structure 200 (Grit Building)—Structure 200:
  - Grating work completed, waiting on final section of safety railing.
  - Grit system and building up and running.
  - Safety harness mechanism installed on ladder to roof.
  - Punchlist work has started.

- Structures 310, 320, 330 and 340 (Primary Clarifiers 1, 2, 3, and 4) along with Structure 350 (Primary Effluent Channel):
  - All four clarifiers in operation.
  - Adjustments to the mechanism skimmer arms completed.
  - Minor punch list items regarding the clarifiers remain.

- Structure 400 (Activated Sludge Building):
  - Tile fill in work complete.
  - All three blowers working well.
  - The microturbines have been placed back in operation.
  - Railing almost completed on top of roof.
  - Cleaning of structure and punch list items are ongoing.

- Structure 404 (Junction Box)— Structure is in operation.

- Structure 405 (Anoxic Selector Tank) and Structure 406 (Mixing Tank)— Both structures are in operation.

- Structure 410 (Activated Sludge Basins):
  - New handrail is completed around the basins.
  - Basins in operation and working well.
  - Work being performed on punchlist items.

- Structure 415 (Basin Drain Pump Station)– Work has been completed on the basin drain pump station; it is in operation as needed.

- Structure 420 (Mixed Liquor Channel) and Structure 500 (Secondary Splitter)— Work completed on these two structures. Minor punch list item regarding insulation on phosphorus removal chemical (PRC) line.

- Structures 510 and 520 (Secondary Clarifier 1 and 2) and Structure 515 (Secondary Scum Manhole 1)— Clarifiers in operation, Structure 515 working as needed.

- Structure 530 (Secondary Clarifier 3)—City staff getting ready to place clarifier back in operation.

- Structure 535 (Secondary Scum Manhole 3)—This structure is in operation and is working when needed.

- Structure 540 (Secondary Clarifier 4)—Clarifier continues to work well; minor punch list items to be completed.

- Structure 600 (Effluent Building):
  - Vendor representatives will be returning to complete the functional testing and performance checkout of disc filters.
  - Currently, disc filter performance testing on hold until main breaker issues are resolved.
  - Secondary Effluent pumps have been running on and off during disc filter checkout.
  - The W3 water system continues to operate.
  - UV System is now off during non-disinfection season.

  - Punchlist work continues in this structure.

- Structure 610 (Chemical Building) – Magnesium Hydroxide Solution (MHS) system, PRC system and sodium hypochlorite (SHC) system are working.

- Structure 700 (Digester Building) and Structures 710, 720, 730 and 740 (Digesters 1, 2, 3 and 4): Systems operating in structure. Some issues with digester gas boilers that are being worked out with engineers and vendor hope to be corrected in December. Final painting and punch list work on going.

- Structure 755 (Waste Gas Burner)— Waste gas flare operating.

- Structure 760 (Biosolids Storage Building):
  - Van Ert completed the lighting in all of the bays for the building.
  - Final electrical controls, lighting panel and fire safety control panel work has started and is anticipated to be completed in December.

- Structure 770 (Solids Building):
  - Veolia has been on site and completed the dryer performance testing.
  - The dryer is currently not in operation due to a solids handling chute malfunction/kinking in the solids handling garage. Work on this issue expected to be completed in December.
  - Gravity belt thickeners, belt filter press and sludge screening are all in operation.
  - Lower level pumps are in operation.
  - City is preparing for WDNR Class A Sludge biosolids performance demonstration.
  - Labeling of piping throughout structure continues,
  - Punch list item completion ongoing.

- Structure 775 (PSD Thickener) and Structure 776 (Basin Drain Pump Station 2)—Structures 775 and 776 have been placed in service and continue to operate.

- Tunnel 900— Punchlist items, labeling and cleanup are ongoing; primary sludge pump 1 back in operation. Concrete injection work started in tunnel to help with groundwater infiltration.

- Tunnel 910— Minimal work in this tunnel, except for some cleanup of piping and punch list items.

- Site Work:
  - Punchlist items associated with the site, grading, landscaping and yard work are ongoing for the entire site and structures.
  - Site fencing is complete for the entire site, except final gate work at Department of Public Works and installing power and card readers to east gate.
  - Signs placed at southeast of Structure 530 (Secondary Clarifier 3) and west of Structure 520 (Secondary Clarifier 2) for no trucks allowed due to shallow buried piping.
- Construction progress photographs are located at the end of this progress report.

Construction Schedule

- The Contractor has developed a detailed construction schedule that defines a timeline for the orderly completion of the work and a breakdown by structure of the work to be done in the various work areas. We continue to review the timeline and work tasks against the various constraints identified in the project manual to confirm that the contractor has adequately addressed them and accounted for shutdown time limits as their work proceeds.

Project Related Budget Snapshot

Construction Engineering Budget

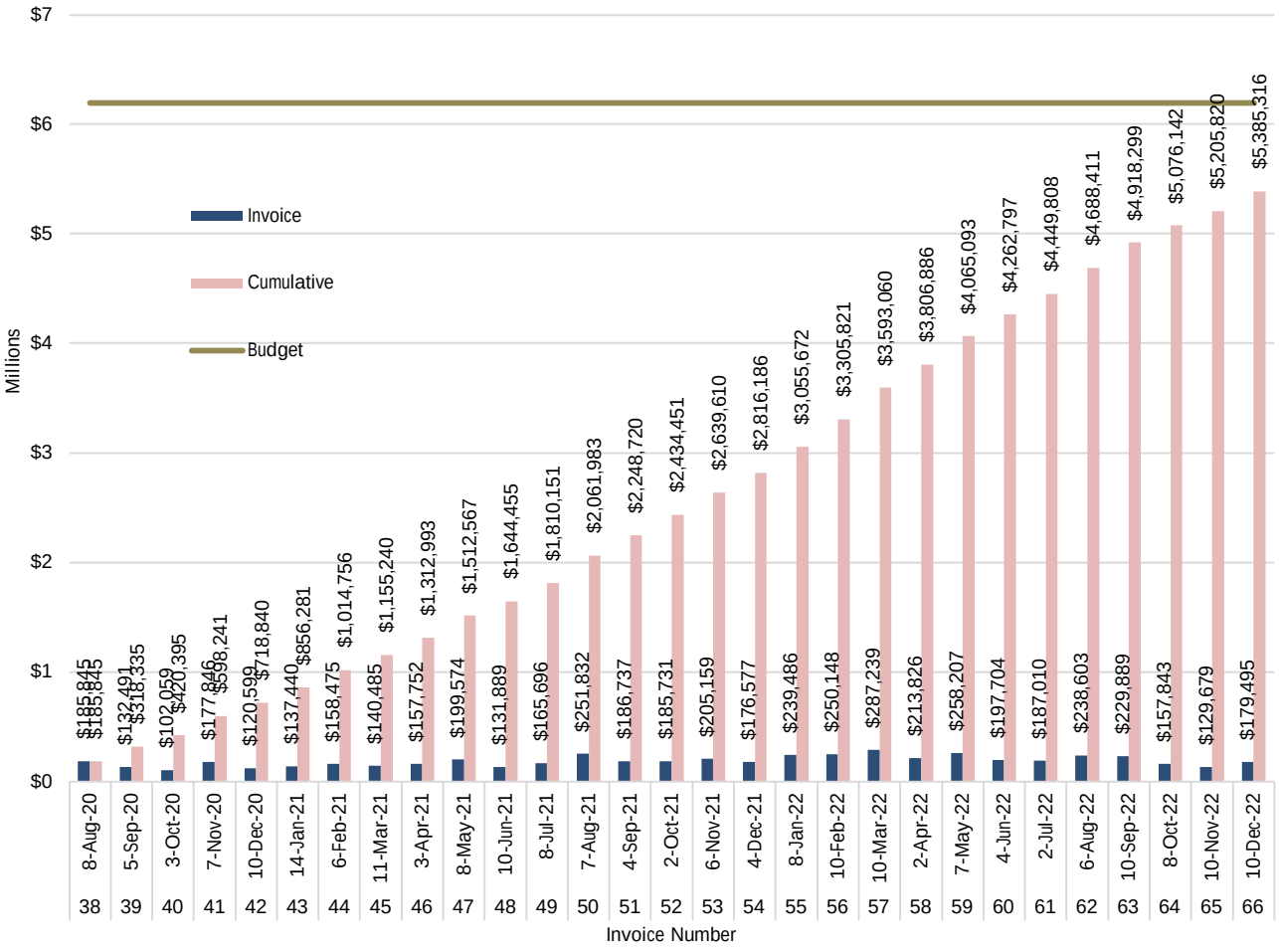
Wastewater Treatment Facility Improvements Project – Engineer During Construction

City of Wausau, Wisconsin

Donohue Project Number 13229

Period | November 6, 2022 – December 10, 2022

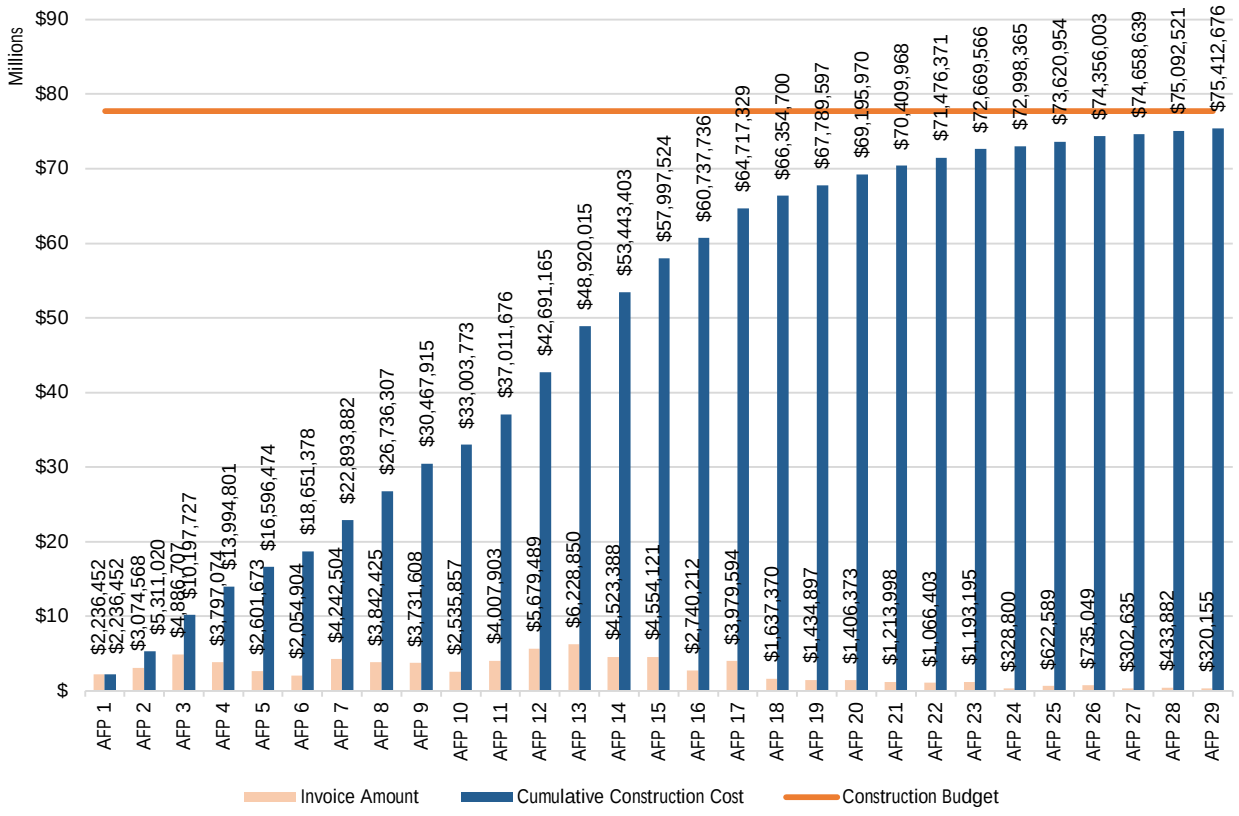
Invoice 66



Period | November 6, 2022 – December 10, 2022

Invoice 66

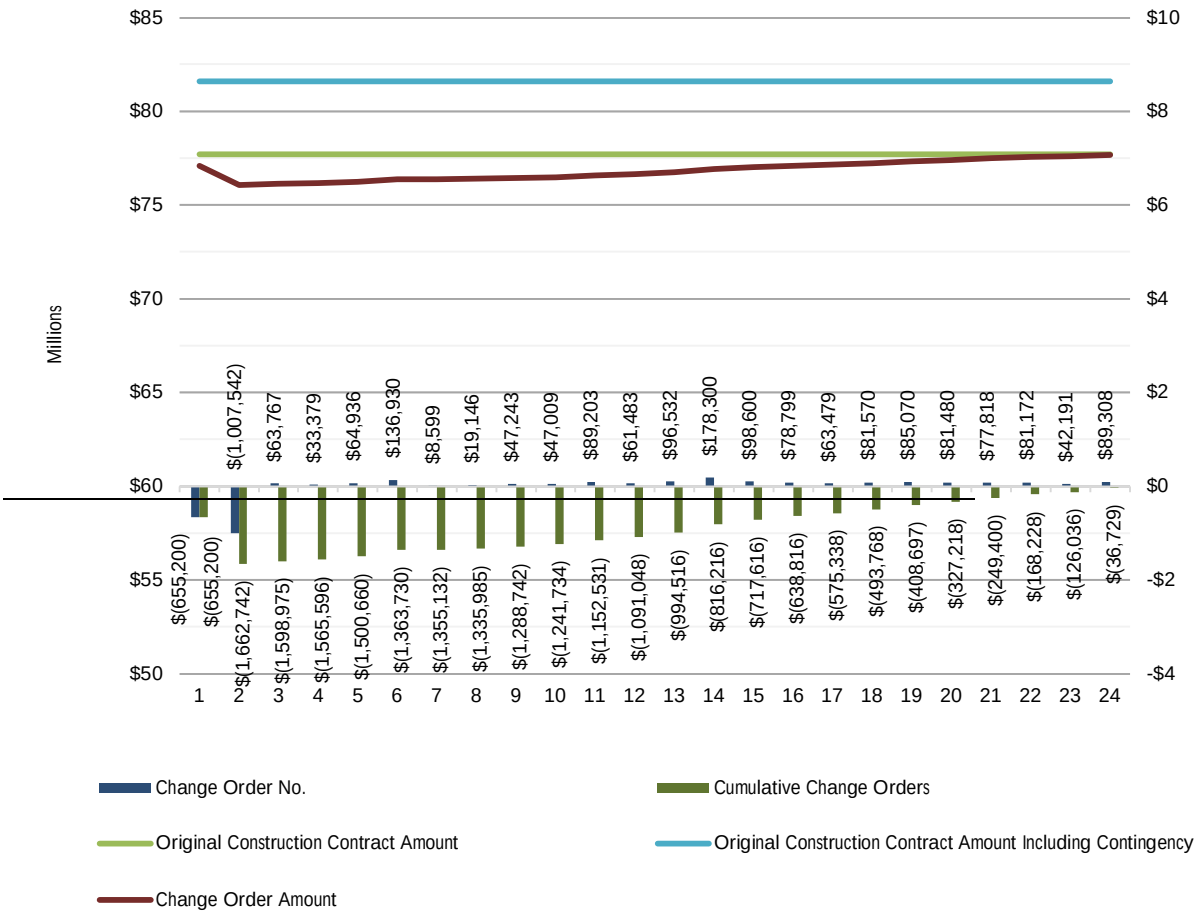
Construction Budget: Pay Applications Approved by Engineer



Period | November 6, 2022 – December 10, 2022

Invoice 66

Overall Project Budget



Budget Notes:

1. No budget issues at this time.

Remarks

1. None.

Construction Photographs

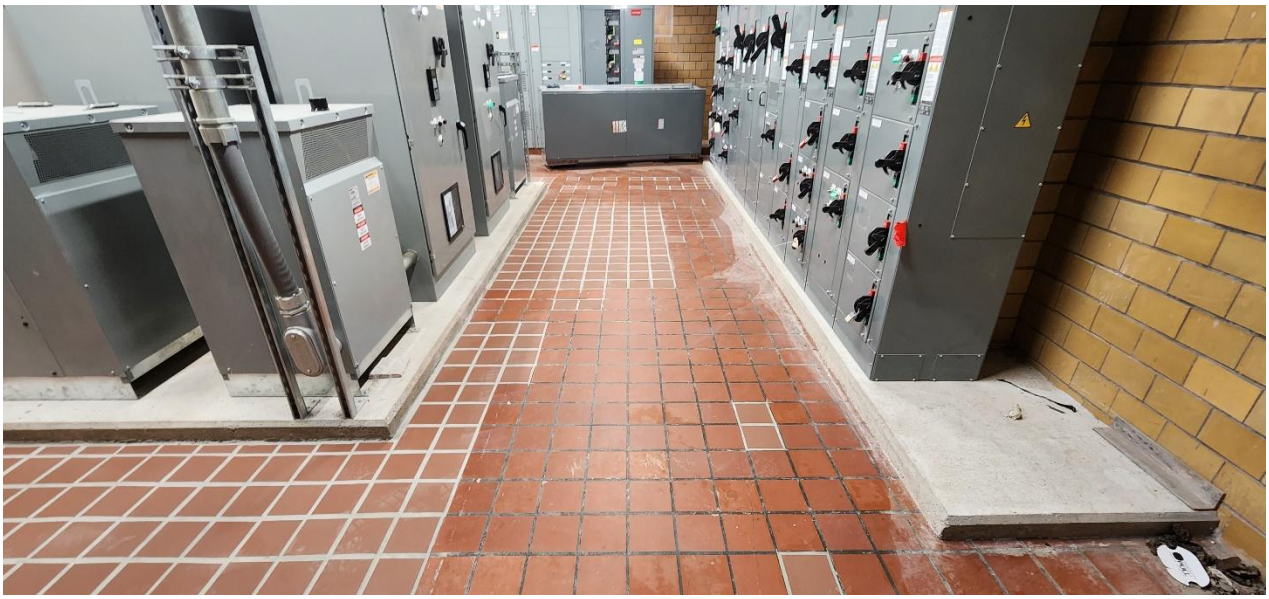
Screens placed on louvres around Structure 100 (Main Building).

Tile work completed around electrical equipment in new electrical room of Structure 100 (Main Building).

Tile baseboard work completed in foyer area and hallway of Structure 100 (Main Building).

New east gate near Structure 110 (Vehicle Storage Garage).

Fencing complete around Structure 120 (Administration Building).

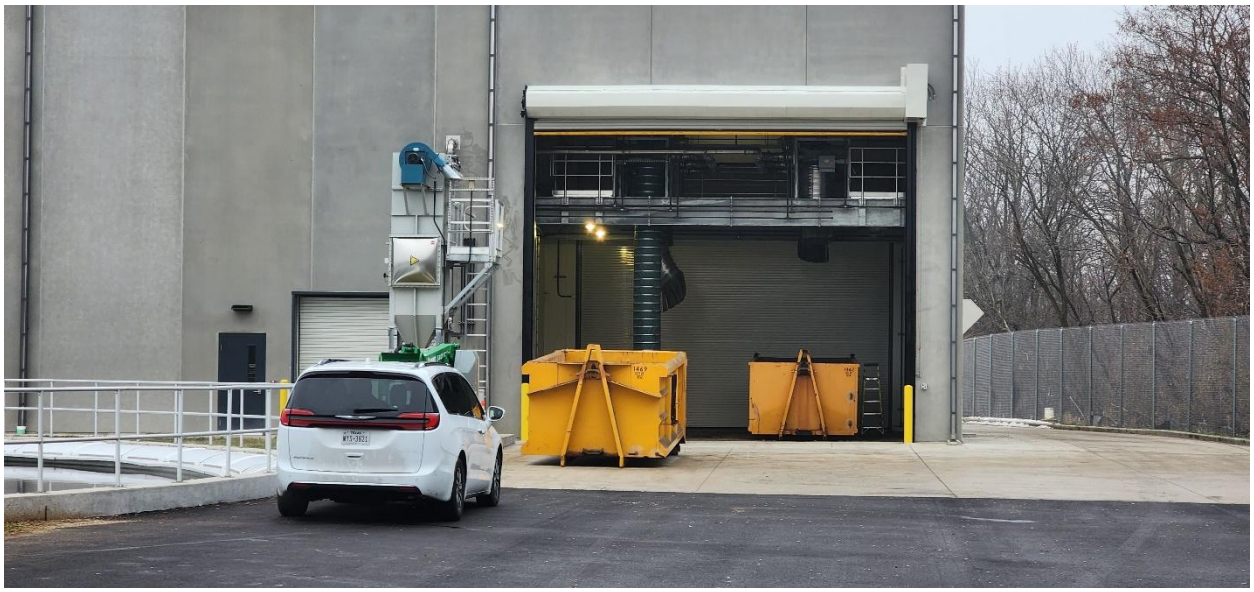


Tile work around new equipment of Structure 400(Activated Sludge Building).

Louvre screens placed on south side of Structure 400 (Activated Sludge Building).

Step placed to access catwalk on Structure 530 (Secondary Clarifier 3).

Step also placed to access catwalk on Structure 540 (Secondary Clarifier 4)



Vendor on site to repair malfunctioning solids handling chute at Structure 770 (Solids Building).

"No Truck" signs placed at Structure 520 (Secondary Clarifier 2) for shallow buried 48-inch secondary effluent line.

Final fence work from Structure 100 (Main Building) to Adrian Street; waiting on new gate.

Parting Shot: A little flaring during a cold rainy night.

INVOICE

DONOHUE

3311 Weeden Creek Road
Sheboygan, WI 53081
Phone: 920-208-0296
www.donohue-associates.com

Invoice To:

City of Wausau
Attn: Ben Brooks
407 Grant Street
Wausau, WI 54403

Invoice Date:	December 12, 2022
Donohue Project No.:	13229
Invoice No:	13229-66
Project Manager:	Mike Gerbitz
Terms:	Net 30 Days
Billing Period:	11/06/22 - 12/10/22

Project Description: Wastewater Facilities Plan & Design

Your Authorization:
Engineering Services Agreement, Signed 03/29/17
Amendment No. 1, Signed 06/28/18
Amendment No. 2, Signed 03/05/19
Amendment No. 3, Signed 01/27/20
Amendment No. 4, Signed 05/07/20
Permit Review Fees Payment Request, 02/27/20

Compensation:

Time and Expense		$	129,220.00
Time and Expense		$	984,565.00
Time and Expense		$	3,323,900.00
Time and Expense		$	4,351,831.00
Time and Expense		$	1,843,325.00
Permit Review Fees		$	12,534.50
	Total	$	10,645,375.50

Billing Summary:

Total Charges to Date		$	9,835,551.21
Charges Previously Billed		$	9,656,055.81
Current Charges		$	179,495.40

Summary of Current Charges

Labor (934.5 hours)		$	166,555.00
Reimbursable Expenses		$	9,595.40
Permit Review Fees		$	-
Subconsultants		$	3,345.00
	Total	$	179,495.40

Current Charges Due	**$**	**179,495.40**

Please Remit to:

Donohue & Associates, Inc.
3311 Weeden Creek Road
Sheboygan, WI 53081
Phone: 920-208-0296
Fax: 920-208-0402

Aged Receivables

Current	31 - 60 Days	61 - 90 Days	91 - 120 days	>120 days
$179,495.40	$129,678.57	$15,876.07	$46,209.33	$31,979.74

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Staffing Needs Assessment

January 9, 2023

Project Director

Nick Dragisich, P.E.
Managing Director, Baker Tilly Public Sector Advisory
Nick.dragisich@bakertilly.com
+1 (651) 223 3012

Project Objective

- Assessing current and future staffing needs for both water and wastewater divisions
  - Adequate staffing levels to maintain safe drinking water and safe treatment of wastewater
- Realign the organizational structure to reflect operations and strategic priorities

Process

Phase 1 – Project planning and management

- Confirm scope, project schedule, and provide information request

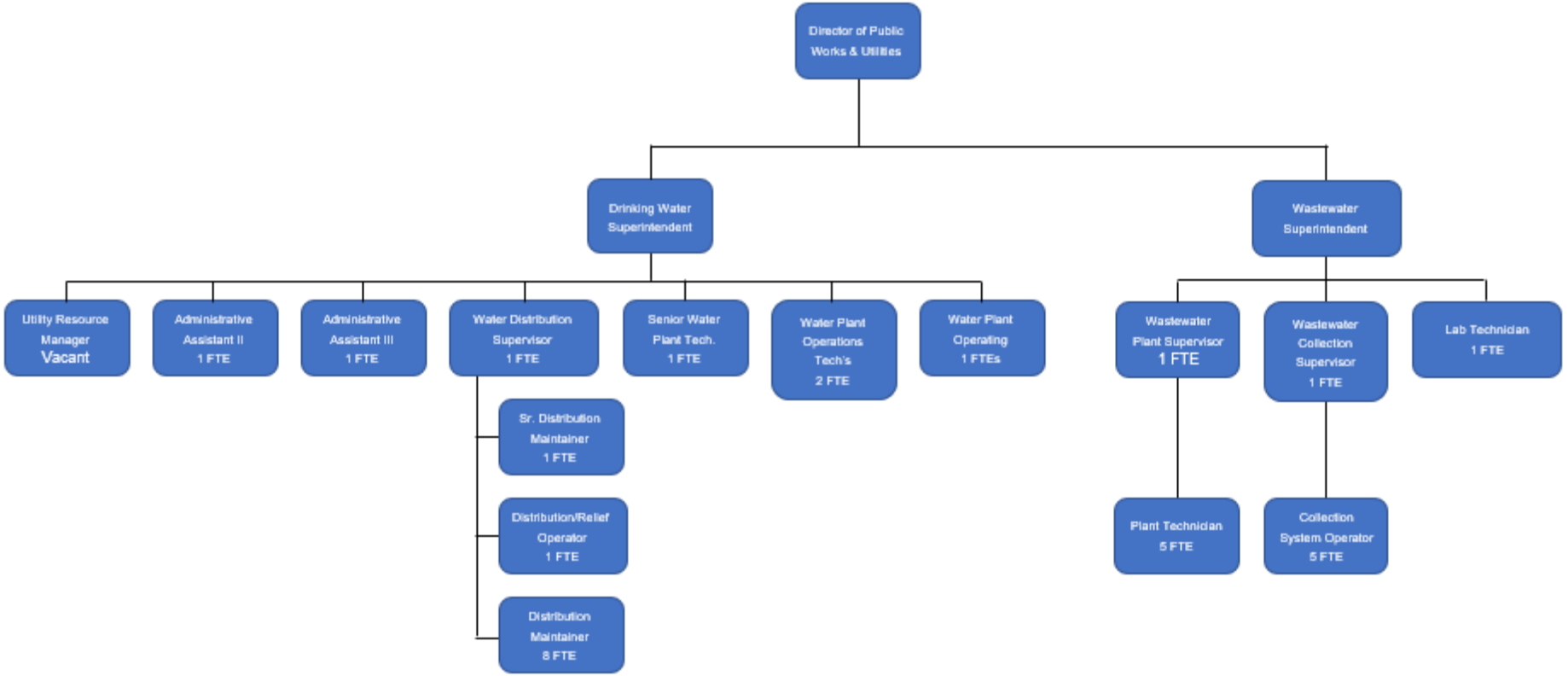
Phase 2 – Current state assessment and analysis

- Review background information
- Conduct interviews
- Benchmark analysis
- Document initial findings
- Research, analysis and develop recommendations

Phase 3 – Reporting

- Develop and issue Draft Report and Final Report

Organizational Structure



Staffing Analysis

- Developed, in part, using comparative benchmark data from Baker Tilly's database, similar utilities, and *AWWA's 2020 Utility Benchmarking Performance Management for Water and Wastewater*
- *Drinking Water comparison utilities selected:*
  - *Appleton*
  - *Manitowoc*
  - *Oak Creek*
  - *Oshkosh*
- *Wastewater comparison utilities selected:*
  - *Beloit*
  - *Fond Du Lac*
  - *Sun Prairie*
  - *West Bend*

Staffing Analysis

- *Wastewater staffing analysis*

Benchmark	Benchmark	Wausau Current F.T.E.s	F.T.E.s at Average	F.T.E.s at AWWA Median	Staffing Over (Under Average)
Total Utility Staffing	MGD/F.T.E.	14.00	19.15	27.37	(5.15)
Total Utility Staffing	Customer Accounts/F.T.E.	14.00	21.36	29.24	(7.36)
Collection System	Miles of Sewer Mains/F.T.E.	6.00	6.44	-	(0.44)
Wastewater Treatment Plant	F.T.E.s/MGD	6.00	11.59	7.88	(5.59)

- *RECOMMENDATION*
  - *Wausau Water Works should develop a plan to increase staffing in Wastewater by three full-time equivalent employees to address the current shortage and by two full-time-equivalent employees when the wastewater treatment plant additions go into service*

Staffing Analysis

- *Drinking Water staffing analysis*

Benchmark	Benchmark	Wausau Current F.T.E.s	F.T.E.s at Average	F.T.E.s at AWWA Median	Staffing Over (Under Average)
Total Utility Staffing	MGD/F.T.E.	18.00	17.90	23.81	0.10
Total Utility Staffing	Customer Accounts/F.T.E.	18.00	22.99	30.07	(4.99)
Distribution System	Miles of Water Mains/F.T.E.	11.00	10.09	-	0.91
Water Treatment Plant	F.T.E.s/MGD	4.00	7.07	3.95	(3.07)

- *RECOMMENDATION*
  - *Wausau Water Works should develop a plan to increase staffing in Drinking Water by two full-time equivalent employees to address the current shortage and by one additional full-time employee when the water treatment plant additions go into service*

Observations and Recommendations

- OBSERVATION: Technology needs to be improved in a number of areas
- RECOMMENDATION

  Wausau Water Works should develop a technology plan to improve its use of technology in providing services and the efficiency of its staff
- OBSERVATION: The current compensation structure is not competitive with the market
- RECOMMENDATION

  Water Works should review the compensation and market study when completed and make appropriate compensation adjustments to retain current staff, attract new employees as needed, and to provide an incentive for staff to improve their skills

Observations and Recommendations

- OBSERVATION: The requirement that a commercial driver's license is required as a condition of employment for some positions makes hiring new employees difficult
- RECOMMENDATION

  Water Works should review the requirement for a CDL as a condition of hire if it presents a barrier finding new employees in the current job market and make appropriate adjustments such as within six months of hire to fill needed vacancies
- OBSERVATION: There is no succession plan in place to replace employees who retire
- RECOMMENDATION

  Wausau Water Works should begin the process of succession planning to transfer the knowledge of its current staff who will be eligible to retire in the next five years to their replacement staff

Observations and Recommendations

- OBSERVATION: Safety training needs to be improved
- RECOMMENDATION

  Wausau Water Works should review its safety training program to improve both employee interest in and delivery of the program

- OBSERVATION: Employee training needs to be improved
- RECOMMENDATION

  Wausau Water Works should develop an employee training program to provide opportunities for its employees to improve their skills and to obtain additional DNR certifications

Observations and Recommendations

- OBSERVATION: There is no formal inventory control system in place
- RECOMMENDATION

  Wausau Water Works should develop an asset inventory system to management and track replacement parts and other inventory accurately

- OBSERVATION: Communication between the Wausau Water Works and the City could be improved
- RECOMMENDATION

  Wausau Water Works should meet with the City to identify opportunities to improve communication and sharing of information

Observations and Recommendations

- OBSERVATION: Job descriptions are not accurate and are missing critical technical language and skill gaps
- RECOMMENDATION

  Wausau Water Works should review the current job descriptions to identify technical and skills gaps and update them to eliminate any discrepancies. Once updated, they should be shared with employees so that everyone understands the requirements for their positions which will eliminate any misunderstandings

Observations and Recommendations

- *OBSERVATION: Some maintenance functions are not being performed*
- *RECOMMENDATION*

  Water Works should address sewer collection cleaning and televising, maintenance and checking of lift stations and the exercising of water distribution valves either through additional staffing, contracting them out to a private service provider, or some combination of these

Questions?

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Wausau Water Works, Wisconsin

Final Report

November 14, 2022

Contents

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1. Project Background, Objectives and Scope

Bakery Tilly Municipal Advisors, LLC (Baker Tilly) was engaged by Wausau Water Works (WWW) to undertake a staffing needs assessment of both the water and wastewater division to determine the current and future staffing needs to effectively provide utility services today and over the next five years. This document includes an organizational profile, an overview of the background and purpose of the study, provides a comparative analysis of selected benchmarks, and presents specific findings and recommendations for staffing levels and organizational improvement.

Background

The U.S. Census Bureau 2020 census population for the City of Wausau is 39,994. The City encompasses a land area of 19.22 square miles. The City maintains a median value of $121,100 for owner-occupied homes. The City's median household income is $47,438. The population of Wausau is highly educated, with 90.8% of residents 25 years or older being a high school graduate or higher education and 28.4% of this demographic group possessing either a bachelor's degree or a higher degree.

This section includes a summary description of the structure, staffing, services, and responsibilities of the City Utilities. The purpose of this profile is to document – at a high level – the current composition of the operating divisions and our initial observations based on the in-person interviews and information provided by the Utility.

A utility commission governs Wausau Water Works. The Wausau Water Works Commission is established under Chapter 13.04.020 of the municipal code, which provided that the commission shall consist of the Mayor, one alderperson elected from the membership of the common council, and three citizens of the City of Wausau. The three citizens would be appointed to the commission by the Mayor. Wausau Water Works provides water and wastewater services to approximately 16,877 customer accounts.

As a part of the City of Wausau government, the Wausau Water Works embodies the City's mission and core values. The City of Wausau's Mission is:

> ***In response to our citizens, we will provide services in the most effective and efficient manner in order to promote and enhance our living environment. Plan and encourage positive growth. Promote a positive community image by encouraging citizen involvement and civic pride.***

The City's Core Values include:

- Professionalism

  We choose to take pride in our work, communicate effectively, project a positive image, and deliver service at the highest standards every time, in every situation.

- Accountability

  We accept responsibility and take ownership for our actions.

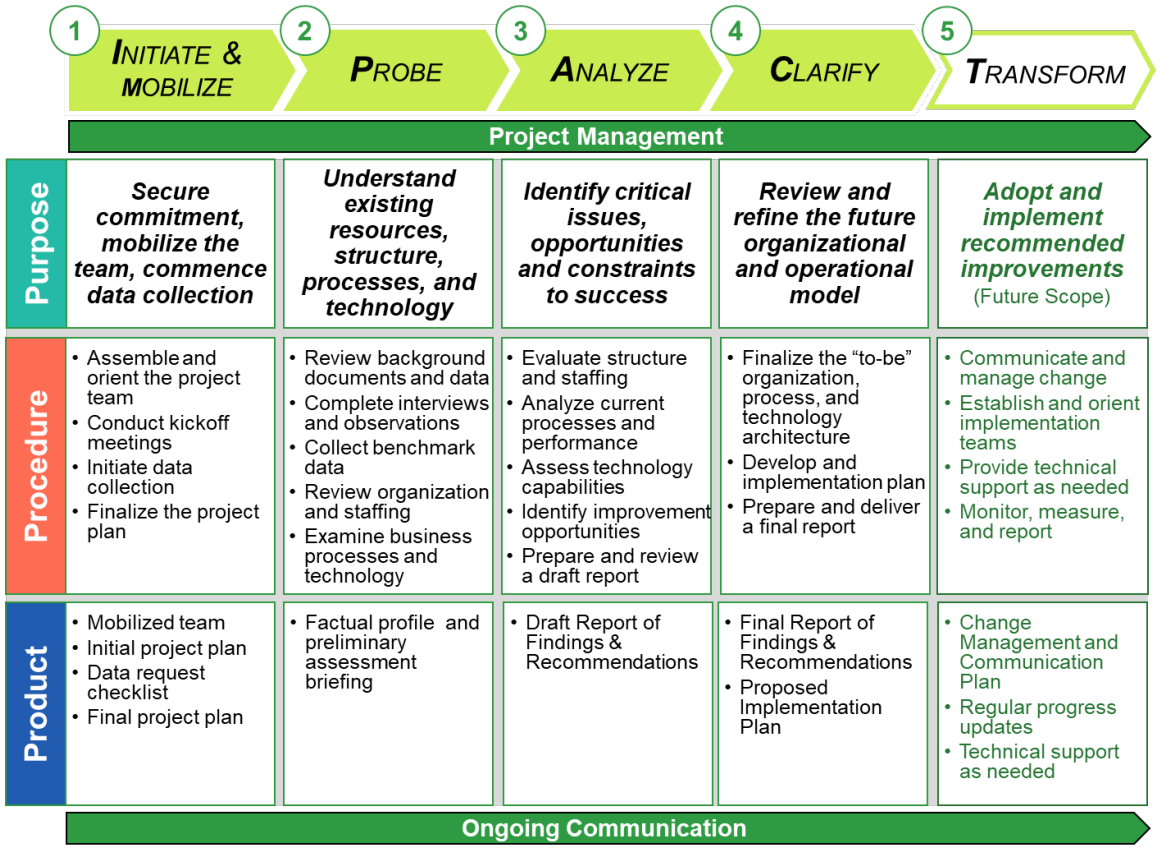
- Integrity

  We act ethically, honestly, and lead by example by having our actions reflect our word.

- Respect

  We choose to treat everyone the way we would like to be treated.

In conducting its review, the Baker Tilly team applied an operations and process improvement methodology that was organized within a structured yet flexible framework Called ***ImPACT***, this framework logically organizes those tasks necessary to document and analyze the Waterwork's operations. This framework is illustrated in the graphic below, the methodology is organized into five major phases:



Within the methodology framework, the team used a variety of information gathering and analytical techniques appropriate to the specific requirements of this project's scope of work. In addition to extensive interviewing, data collection, and research, the team performed a variety of other analyses including:

- Organizational and operational analysis
- Workload and staffing analysis
- Business process analysis
- Industry research
- Benchmark staffing research

Interviews conducted for this organizational analysis included the following individuals:

- Eric Lindman – Director of Public Works
- Scott Boers – Drinking Water Superintendent
- Shanon Lane – Water Distribution Supervisor
- Ben Brooks – Wastewater Superintendent
- Pat VanOuse – Wastewater Supervisor
- Ryan Dwelly – Wastewater Collection Supervisor
- Tyler Wagner – Lab Technician
- Employee Focus Group 1
    - Rick Dorn – Senior Distribution Maintainer
    - Floyd Smith – Distribution/Relief Operator
    - Ryan Fischer – Distribution Maintainer
    - Ray Younger - Distribution Maintainer
    - John Langren - Distribution Maintainer
    - Jonathon Lindloff - Distribution Maintainer
    - Mitchell Pempek - Distribution Maintainer
    - Andy Kuhnert - Distribution Maintainer
- Employee Focus Group 2
    - Kevin Behnke – Senior Water Plan Technician
    - Tim Mesalk – Water Plant Operations Technician
    - Darren Jensen - Water Plant Operator
    - Floyd Smith - Distribution/Relief Operator
- Employee Focus Group 3
    - Gina Vang – Administrative Assistant II
    - Michelle Weasler – Administrative Assistant III
- Employee Focus Group 4
    - Bill Olsen - Collection System Technician
    - Steve Celona - Collection System Technician
    - Matt Stockman - Collection System Technician
    - Basil Smith - Collection System Technician
- Employee Focus Group 5
    - Mark Hilgendorf – Wastewater Operations Technicians
    - Brad Wendtland - Wastewater Operations Technicians
    - Scott Carman - Wastewater Operations Technicians

    - Jeremy Steinman - Wastewater Operations Technicians
    - Jason Ladwig - Wastewater Operations Technicians
- Donohue Associates
    - Susan Wojkiewicz
    - Mike Gerbitz

PROJECT SCOPE

A detailed project plan following our prescribed methodology included the completion of the following tasks:

Task 1	Project planning and management
Task 2	Current state assessment and analysis
Task 3	Reporting

Acknowledgements

The Staffing Needs Assessment was conducted as a collaboration between the Baker Tilly consulting team and members of the Wausau Water Works management team and staff. The background information and access necessary for the completion of the review was readily made available, and employees at all levels of the organization actively participated in interviews and focus groups to provide candid feedback and valuable insight to the consultants. No request for additional information was declined.

.

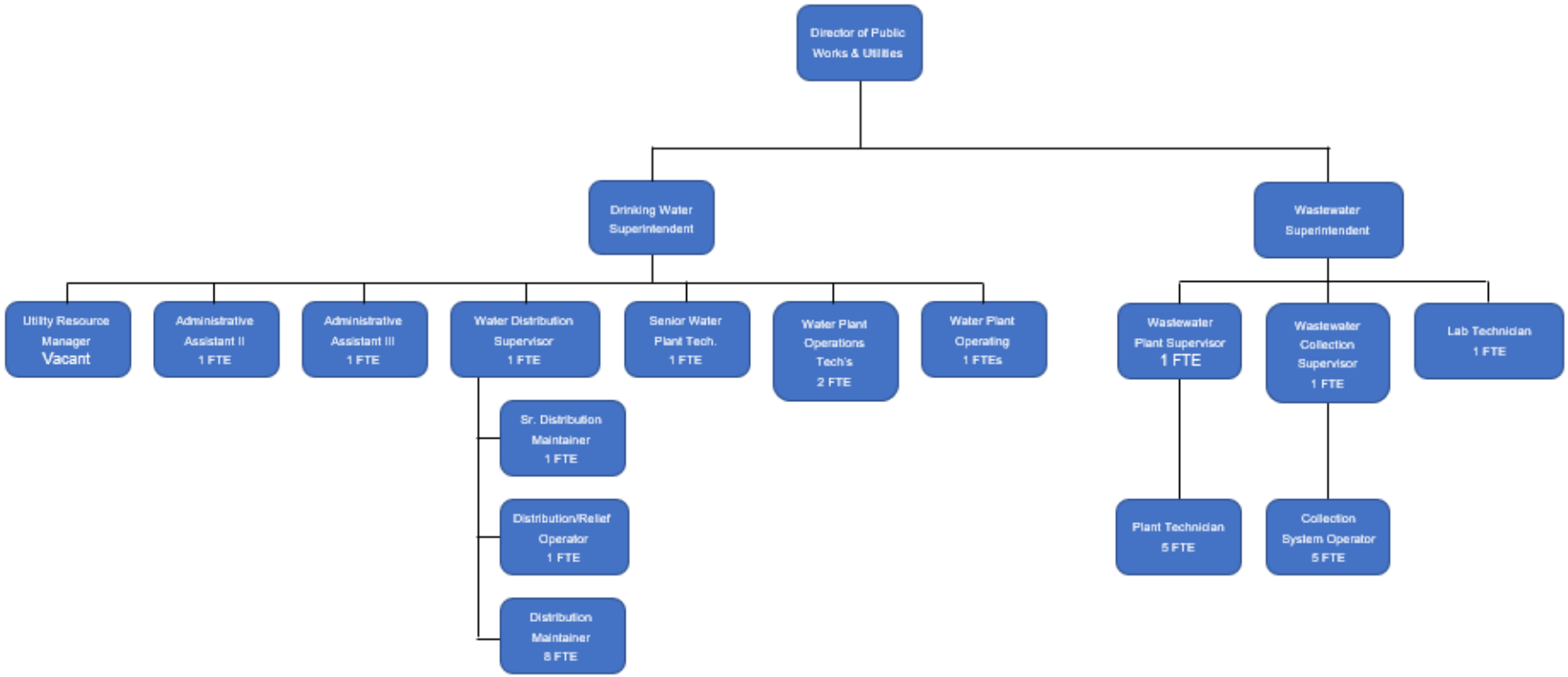
2. Organizational Profile

The Utility operates and maintains the water and wastewater systems for the City. These include:

- Water Supply and Treatment:
  - Water Treatment Plant capacity of 9.0 MGD with an average daily treatment of 5.0 MGD
    - ❖ Supplied by six wells with a combined capacity of 11,345 gallons per minute (gpm)
  - 239.9 miles of water transmission mains ranging in size from 2" to 30" in diameter
  - 16,877 service connections
  - 1,661 hydrants
  - Ten booster stations
  - Three elevated storage tanks and four reservoirs with a combined capacity of 5.75 million gallons
  - 15,879 customer accounts
- Wastewater Collection and Treatment
  - Wastewater treatment plant (design average daily flow of 8.2 MGD, treatment plan capacity is 13.5 MGD)
  - 232.06 miles of sewer mains including
    - ❖ 222.93 miles of gravity mains, interceptors, and siphon
    - ❖ 9.13 miles of force main
  - 25 lift stations
  - 15,440 customer accounts

The Utility has 32 full-time-equivalent employees. The organizational structure of the City places Wausau Water Works under the Department of Public Works and Utilities. The Utility consists of two departments that include wastewater and drinking water led by a Drinking Water Superintendent and Wastewater Superintendent. The Utility reports directly to the Director of Public Works and Utilities.

Current Organizational Structure



Wastewater

Wastewater consists of three divisions: Wastewater Plant, Wastewater Collection, and a Laboratory. They have a staff of fourteen full-time employees (F.T.E.s). Wastewater provides for the collection and treatment of sanitary sewers through its three divisions. The Wastewater Superintendent manages the division.

Wastewater Collection

Wastewater Collection is responsible for repairing and maintaining the sanitary sewer collection system, including the sanitary sewer mains and manholes. Services they provide include:

- Review new connections to sewer mains
- Some equipment maintenance
- Clean and televise sewer collection system. Annual goal is to clean 20% of system and televise 10%
- Maintenance and repair of sewer manholes
- Write specifications for lining sewers and manholes and review construction
- Review street construction plans for fittings, pipe sizing, manhole placement and spacing
- Plow snow in winter months

Wastewater Collection has a staff of six which includes:

- Wastewater Collection Supervisor
- Collection System Operators (5) (one position currently vacant)

Wastewater Plant

The Wastewater Plant is responsible for the operation, repair and maintenance of the treatment plant and lift stations. Services they provide include:

- Operation, maintenance, and repair of the wastewater treatment plant and twenty-five lift stations
- Haul-treated biosolids to disposal sites
- Back up lab and collections crews
- Maintain equipment

Wastewater Plant has a staff of six which includes:

- Wastewater Plant Supervisor
- Plant Technician (5)

Wastewater Lab

The Wastewater Lab is a DNR certified lab that provides testing of wastewater effluent, influent and biosolids for permit compliance and process control. Tests performed include total suspended solids (TSS), biological oxygen demand (BOD), total phosphorus (TP), mercury, pH, Alkalinity, Nitrogen series, and collects all wastewater samples for state required testing that isn't analyzed at the plant. The Lab maintains all analytical equipment and all supporting ancillary

equipment throughout the wastewater plant. The Lab creates spreadsheets for process control as well as interprets the data produced. The Lab is staffed with one full-time Lab Technician.

Drinking Water

Drinking Water has three divisions: Water Distribution, Water Treatment, and Administration. They have a staff of eighteen full-time employees (F.T.E.s). Drinking Water provides for the City's drinking water services, including water supply, treatment, transmission and distribution, and storage through its three divisions. The Drinking Water Superintendent manages the division.

Water Distribution

The Water Distribution division is responsible for repairing and maintaining the Utility's water distribution system, including water mains, hydrants, and valves. Services they provide include:

- Service changes
- Repair water main breaks
- Repair and replace hydrants
- Flush hydrants and clean snow from around them in winter
- Read, test, and replace water meters
- Exercise water valves
- Haul lime sludge from the Water Treatment Plant two times each week
- Inventory and replace lead and copper water lines
- Utility locates
- Hydrant painting (outsourced in future)
- Cross connection inspections (industrial and commercial are contracted out)
- Residential inspections
- Annual backflow testing
- Unidirectional flushing of water mains
- Data entry for GIS
- Light equipment maintenance

They have a staff of eleven, which includes:

- Water Distribution Supervisor
- Senior Distribution Maintainer
- Distribution/Relief Operator
- Distribution Maintainer (8)

Water Treatment

Water Treatment is responsible for maintaining and operating the Water Treatment Plant, wells, booster stations, reservoirs, and elevated storage tanks. Services they provide include:

- Collect water samples for state-required testing
- Maintain wells, booster stations, reservoirs, and elevated storage tanks
- Maintain and repair water treatment plant equipment and buildings
- Prepare specifications for equipment, motors, pumps, and other plant equipment
- Maintenance planning

- Scheduling and oversight of contractors
- Purchasing and maintenance of inventory
- Record keeping
- Equipment and fleet maintenance

They have a staff of four which includes:

- Senior Water Plant Technician
- Water Plant Operation Technician (2)
- Water Plant Operator

Administration

The Administration staff provides support to the water and wastewater operations staff. Services they provide include:

- Meter appointments/change outs
- Receive complaints
- Manage lead grants
- Manage accounts payable
- Process clothing reimbursements
- Prepare Consumer Confidence Reports
- Attend Commission meetings and record minutes
- Other support as needed

Administration has a staff of two including:

- Administrative Assistant III
- Administrative Assistant II

3. Staffing Analysis

The staffing analysis involved a number of strategies and methodologies to obtain relevant information to review and assess Wausau Water Works staffing needs. These included on-site visits with WWW department heads, staff, and employee focus groups. Our interviews were directed to provide an overview of the Department's operations including:

- Organizational structure
- Duties and responsibilities
- Staffing levels and deployment
- Management
- Use of technology

Other information collected and reviewed for the staffing analysis included:

- Wausau Water Works organizational chart
- Number of employees
- Position descriptions
- Data about the number, type, and extent of utility services provided
- Data about assets maintained
- Comparable utility benchmark data
- National benchmark data

The analyses and the resulting conclusions reached were developed, in part, using comparative benchmark data gathered specifically for this project, data from Baker Tilly's data base, and the *AWWA Utility Benchmarking Performance Management for Water and Wastewater 2020*. It is important to understand that this benchmark data provides averages from the comparative benchmark utilities and overall industry averages from organizations performing similar services with "similar" is distinct from "identical" in terms of comparisons.

The application of this data incorporates the professional experience and judgement of the consultant team in both the interpretation of the benchmark data and its applicability to the service being benchmarked. The resulting analysis allows the users of this information to strive for continuous improvement and to adapt service levels if significant differences are identified which could indicate that adjusting operations or modifying levels of service could achieve greater efficiencies and cost savings.

The staffing analysis was done separately for Drinking Water and Wastewater with each analysis based on utilities that provided a good comparison basis to WWW. The comparison utilities were selected in discussion with WWW staff and the utility's consulting engineer. For Drinking Water the comparison utilities selected were:

- Appleton
- Manitowoc
- Oak Creek
- Oshkosh

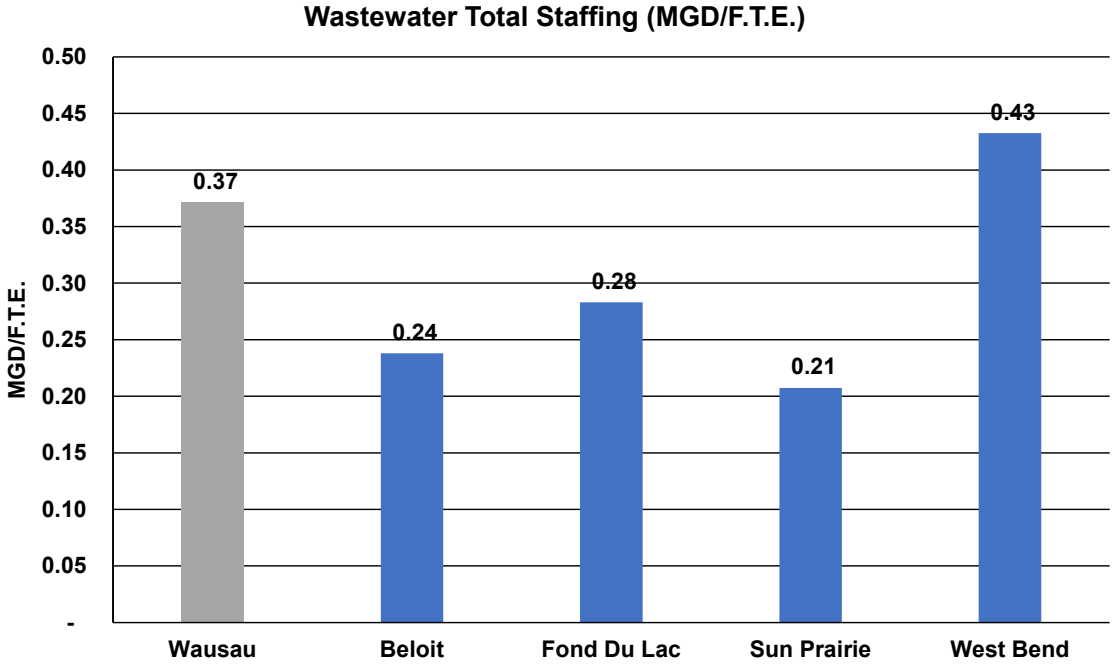
For Wastewater they were:

- Beloit
- Fond Du Lac
- Sun Prairie
- West Bend

In addition, national benchmark data from the American Water Works Association (AWWA) *2020 AWWA Utility Benchmarking Performance Management for Water and Wastewater* publication was also used where applicable data was available.

Wastewater

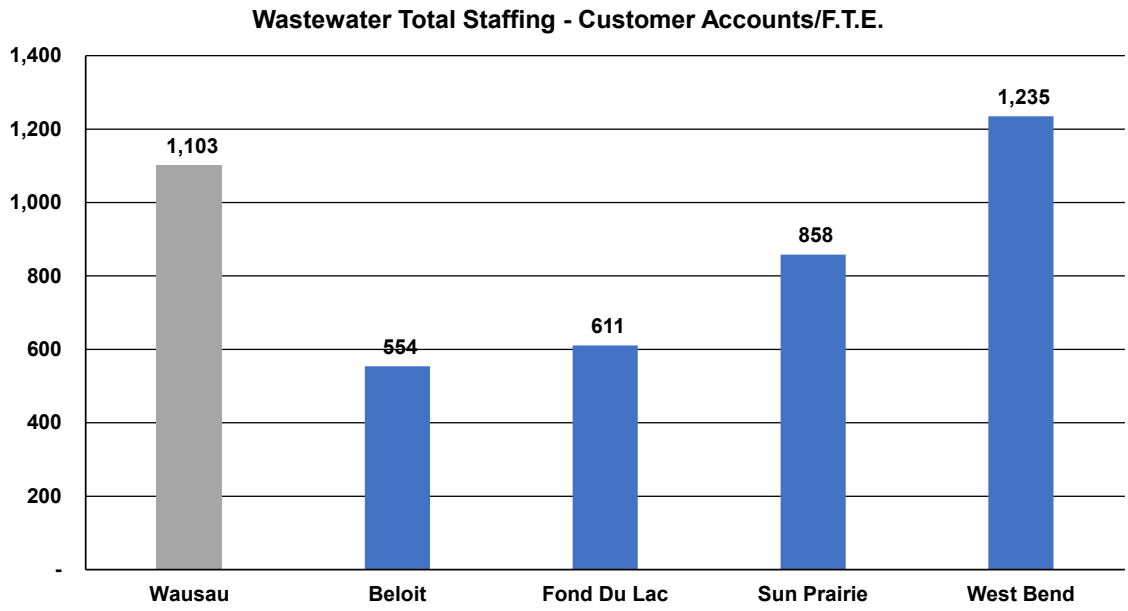
Wastewater's total staffing of fourteen F.T.E.s was compared to the benchmark utilities and to the AWWA benchmark based on the average million gallons/day treated (MGD). WWW treats an average of 5.20 MGD resulting in a ratio of 0.37 MGD/F.T.E. which was the second highest ratio and the second lowest staffing level of the group. Only West Bend with a ratio of 0.43 MGD/F.T.E. was staffed at a lesser level by this measure as shown in the chart below.



The AWWA median staffing was 0.19 MGD/F.T.E. which is approximately half of the WWW ratio. WWW would need to have 19.15 F.T.E.s to be staffed at the average of the comparison utilities and would need to have 27.37 F.T.E.s to be staffed at the AWWA median benchmark as shown in the table on the following page.

City/Wastewater Utility	F.T.E.s	Average MGD	MGD/F.T.E.
Wausau	**14.00**	**5.20**	**0.37**
Beloit	24.16	5.75	0.24
Fond Du Lac	26.50	7.50	0.28
Sun Prairie	16.00	3.32	0.21
West Bend	9.50	4.11	0.43
Average of Comparison Utilities	**19.04**	**5.17**	**0.27**
Median of Comparison Utilities	**20.08**	**4.93**	**0.25**
AWWA Benchmark Median			**0.19**
Wausau at Average of Comparison Utilities	**19.15**	**5.20**	**0.27**
Wausau at Median of Comparison Utilities	**21.18**	**5.20**	**0.25**
Wausau at AWWA Benchmark	**27.37**	**5.20**	**0.19**

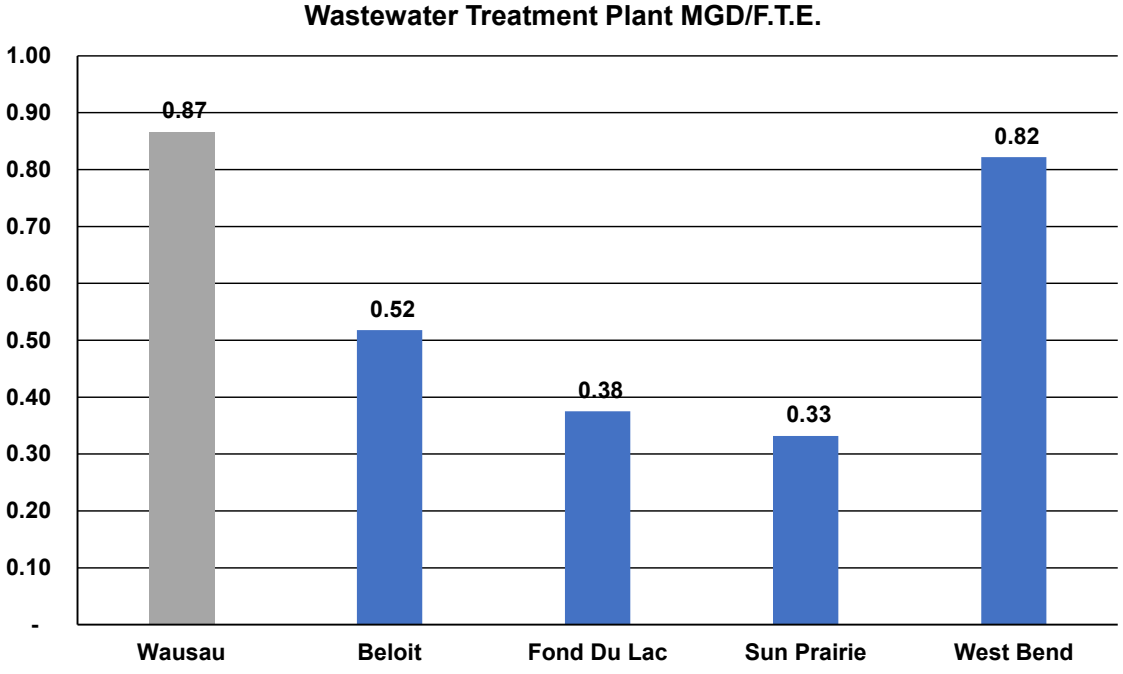
A second comparison of total staffing was based on the number of customer accounts per F.T.E. WWW has 15,440 wastewater customer accounts resulting in a ratio of 1,103 customer accounts/F.T.E. which was the second highest ratio and the second lowest staffing ratio of the comparison utilities. As with the previous comparison, only West Bend with 1,235 customer accounts/F.T.E. was staffed at a lower ratio. This comparison is shown in the chart below.



WWW would need to be staffed at 21.36 F.T.E.s to be at the average of the comparison utilities and would need to be staffed at 29.24 F.T.E.s to be at the AWWA median staffing level. This comparison is shown on the following page.

City/Wastewater Utility	Total F.T.E.s	Customer Accounts	Customer Accounts/F.T.E.
Wausau	**14.00**	**15,440**	**1,103**
Beloit	24.16	13,387	554
Fond Du Lac	26.50	16,190	611
Sun Prairie	16.00	13,729	858
West Bend	9.50	11,735	1,235
Average of Comparison Utilities	**19.04**	**13,760**	**723**
Median of Comparison Utilities	**20.08**	**13,558**	**675**
AWWA Benchmark Median			**528**
Wausau at Average of Comparison Utilities	**21.36**	**15,440**	**723**
Wausau at Median of Comparison Utilities	**22.87**	**15,440**	**675**
Wausau at AWWA Benchmark	**29.24**	**15,440**	**528**

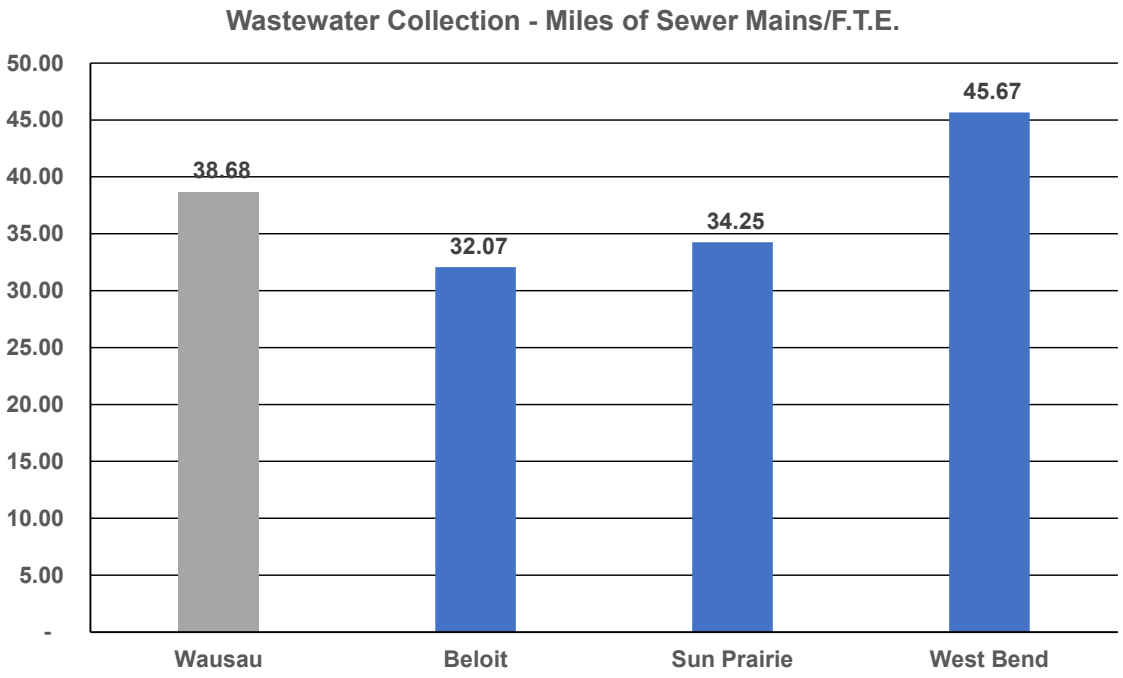
WWW has 6.0 F.T.E.s at the Wastewater Treatment Plant which results in a staffing ratio of 0.87 MGD/F.T.E. which was the highest ratio and the lowest staffing ratio of the comparison utilities as shown in the chart below.



This staffing ratio was also higher than the 0.66 MGD/F.T.E. AWWA median. WWW would need to be staffed with 11.59 F.T.E.s to be at the average of the comparison group and at 7.88 F.T.E.s to be at the AWWA median ratio as shown in the table on the following page

City/Wastewater Utility	WWTP F.T.E.s	Average MGD	MGD/F.T.E.
Wausau	**6.00**	**5.20**	**0.87**
Beloit	11.10	5.75	0.52
Fond Du Lac	20.00	7.50	0.38
Sun Prairie	10.00	3.32	0.33
West Bend	5.00	4.11	0.82
Average of Comparison Utilities	**11.53**	**5.17**	**0.45**
Median of Comparison Utilities	**10.55**	**4.93**	**0.47**
AWWA Benchmark Median			**0.66**
Wausau at Average of Comparison Utilities	**11.59**	**5.20**	**0.45**
Wausau at Median of Comparison Utilities	**11.13**	**5.20**	**0.47**
Wausau at AWWA Benchmark	**7.88**	**5.20**	**0.66**

There are six F.T.E.s in wastewater collection who maintain 232 miles of sewer mains. This is a staffing ratio of 38.68 miles of sewer mains/F.T.E. which was the just above the 36.02 miles of sewer/F.T.E. average of the group. WWW would need 6.44 F.T.Es to be staffed at the average of the comparison utilities. Please note that Fond Du Lac was excluded because their public works staff assists in the cleaning and televising of sewers. The comparison is shown in the chart below and the table on the following page.



City/Wastewater Utility	Collection F.T.E.s	Miles of Sewer Mains	Miles of Sewer Mains/F.T.E.
Wausau	**6.00**	**232**	**38.68**
Beloit	5.55	178	32.07
Sun Prairie	4.00	137	34.25
West Bend	3.00	137	45.67
Average of Comparison Utilities	**4.18**	**151**	**36.02**
Median of Comparison Utilities	**4.00**	**137**	**34.25**
Wausau at Average of Comparison Utilities	**6.44**	**232**	**36.02**
Wausau at Median of Comparison Utilities	**6.78**	**232**	**34.25**

A summary of the staffing comparison shown below suggests that WWW is understaffed in its Wastewater Department. Total staffing of the comparison utilities would have WWW staffed at 20.26 F.T.E.s based on the average of the total staffing comparisons ((19.15 +21.26)/2) staffing by function would have WWW with 18.04 F.T.E.s. (6.44 +11.59 = 18.04). This understaffing is consistent with what was stated by most of the staff interviewed for this study. Understaffing is resulting in some maintenance functions not being performed. For example, the cleaning and televising of the sewer collection system is not being done at the level established by the WWW. Lift stations maintenance is also not getting done and are they checked every other week which is well below industry standards. The current upgrades to the Wastewater Treatment plant will create a need for additional staff to operate and maintain the added pumping, filtration and biosolids drying equipment.

Benchmark	Benchmark	Wausau Current F.T.E.s	F.T.E.s at Average	F.T.E.s at AWWA Median	Staffing Over (Under Average)
Total Utility Staffing	MGD/F.T.E.	14.00	19.15	27.37	(5.15)
Total Utility Staffing	Customer Accounts/F.T.E.	14.00	21.36	29.24	(7.36)
Collection System	Miles of Sewer Mains/F.T.E.	6.00	6.44	-	(0.44)
Wastewater Treatment Plant	F.T.E.s/MGD	6.00	11.59	7.88	(5.59)

Baker Tilly's benchmark database shows total Wastewater staffing for WWW would be at 20.80 F.T.E.s based on total staffing and at 19.60 F.T.E.s based on functions. This is consistent with the benchmark analysis described herein. WWW should increase current staffing at the wastewater treatment plant by two F.T.E.s who should be electrical and instrumentation technicians or licensed electricians to address current skill needs discussed later in this report. One additional F.T.E. should be hired for the collection system who should be a DNR certified with a collection system subclass. Two F.T.E.s should be hired when the wastewater treatment plant additions go into service and both should also be DNR certified wastewater operators with all subclasses required by the DNR for the wastewater treatment facility.

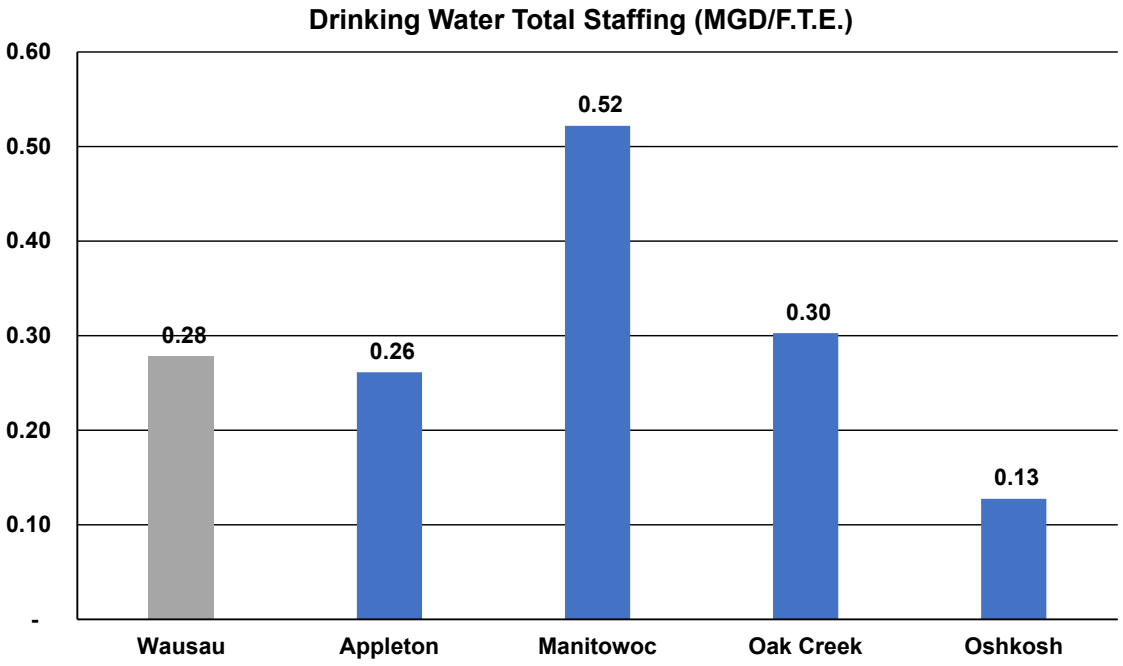
RECOMMENDATION

Wausau Water Works should develop a plan to increase staffing in Wastewater by three full-time equivalent employees to address the current shortage and by two full-

time-equivalent employees when the wastewater treatment plant additions go into service.

Drinking Water

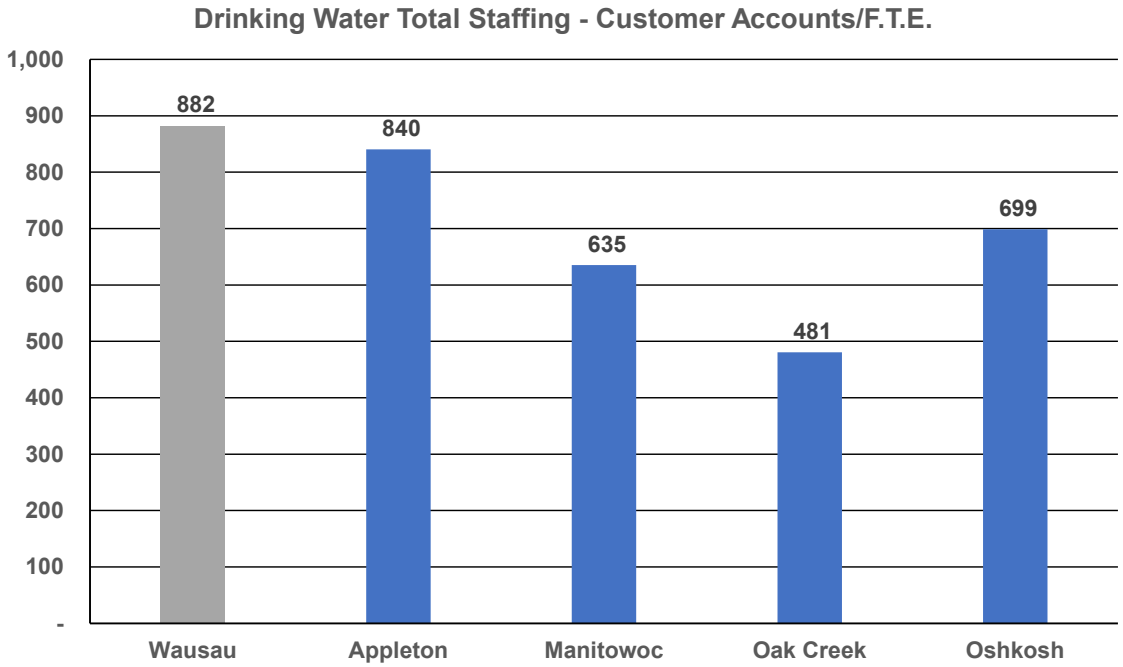
Drinking Water's eighteen F.T.E.s staffing was compared to the benchmark utilities and to the AWWA benchmark based on the average MGD of water treated. WWW treats an average of 5.0 MGD resulting in staffing ratio of 0.28 MGD/F.T.E. which is equal to the average of the comparison utilities. This comparison is shown in the chart below.



The AWWA median staffing ratio was 0.21 MGD/F.T.E. which is a higher staffing level than WWW's current level. WWW would need 23.81 F.T.E. to be staffed at the AWWA median. The table below shows the comparison staffing ratios.

City/Water Utility	F.T.E.s	Average MGD	MGD/F.T.E.
Wausau	**18.00**	**5.00**	**0.28**
Appleton	33.50	8.75	0.26
Manitowoc	21.85	11.40	0.52
Oak Creek	23.65	7.16	0.30
Oshkosh	34.50	4.40	0.13
Average of Comparison Utilities	**28.37**	**7.93**	**0.28**
Median of Comparison Utilities	**28.57**	**7.95**	**0.28**
AWWA Benchmark Median			**0.21**
Wausau at Average of Comparison Utilities	**17.90**	**5.00**	**0.28**
Wausau at Median of Comparison Utilities	**17.96**	**5.00**	**0.28**
Wausau at AWWA Benchmark	**23.81**	**5.00**	**0.21**

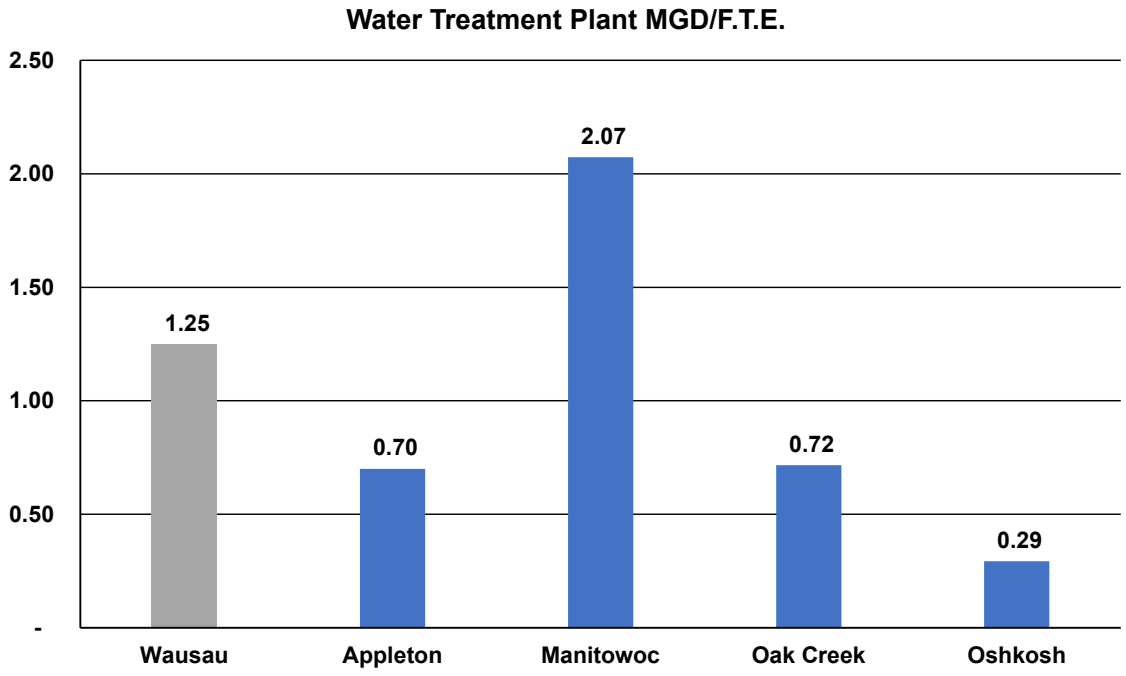
A second comparison of total staffing was based on the number of customer accounts per F.T.E. WWW has 15,879 water customer accounts resulting in a ratio of 882 customer accounts/F.T.E. which was the highest ratio and the lowest staffing ratio of the comparison utilities as shown in the chart below.



The table below shows WWW would need to be staffed at 22.99 F.T.E.s to be at the average of the comparison utilities and would need to be staffed at 30.07 F.T.E.s to be at the AWWA median staffing level.

City/Water Utility	Total F.T.E.s	Customer Accounts	Customer Accounts/F.T.E.
Wausau	**18.00**	**15,879**	**882**
Appleton	33.50	28,150	840
Manitowoc	21.85	13,881	635
Oak Creek	19.50	9,375	481
Oshkosh	34.50	24,106	699
Average of Comparison Utilities	**27.34**	**18,878**	**691**
Median of Comparison Utilities	**27.68**	**18,994**	**686**
AWWA Benchmark Median			**528**
Wausau at Average of Comparison Utilities	**22.99**	**15,879.00**	**691**
Wausau at Median of Comparison Utilities	**23.14**	**15,879.00**	**686**
Wausau at AWWA Benchmark	**30.07**	**15,879**	**528**

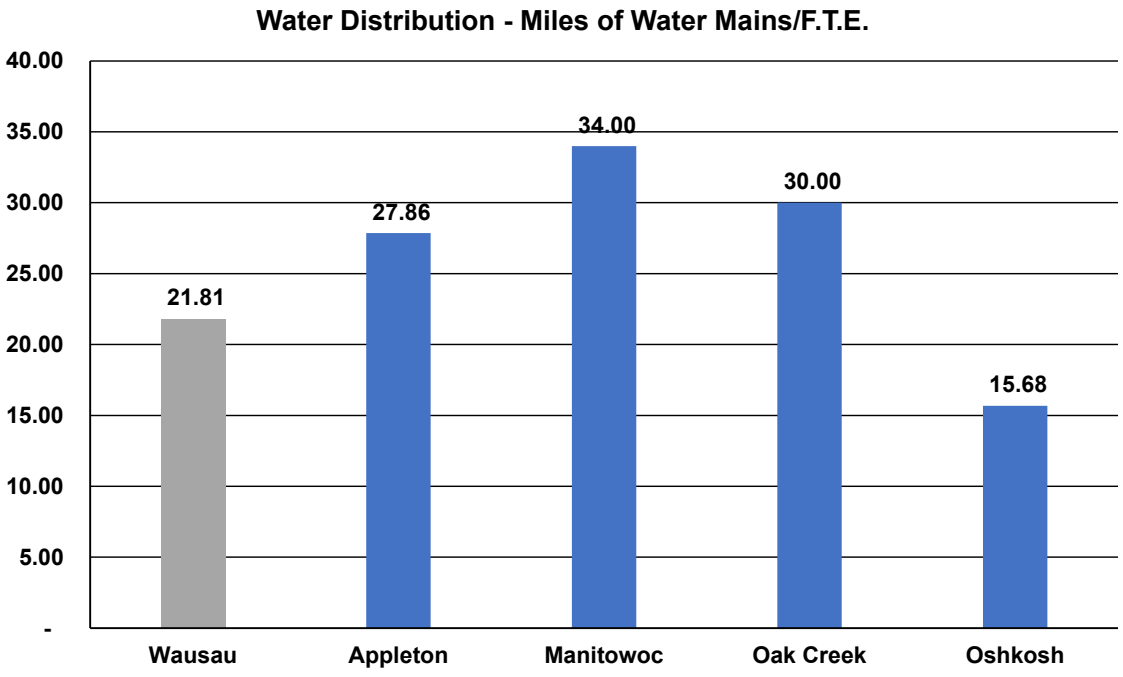
WWW has 4.0 F.T.E.s at the Water Treatment Plant which results in a staffing ratio of 1.25 MGD/F.T.E. which was the second highest ratio and the second lowest staffing ratio of the comparison utilities as shown in the chart below. However, WWW staffing ratio was approximately equal to the AWWA median of 1.27 MGD/F.T.E.



WWW would need to be staffed with 6.78 F.T.E.s to be at the average of the comparison utilities as shown below.

City/Water Utility	WTP F.T.E.s	Average MGD	MGD/F.T.E.
Wausau	**4.00**	**5.00**	**1.25**
Appleton	12.50	8.75	0.70
Manitowoc	5.50	11.40	2.07
Oak Creek	10.00	7.16	0.72
Oshkosh	15.00	4.40	0.29
Average of Comparison Utilities	**10.75**	**7.93**	**0.74**
Median of Comparison Utilities	**11.25**	**7.95**	**0.71**
AWWA Benchmark Median			**1.27**
Wausau at Average of Comparison Utilities	**6.78**	**5.00**	**0.74**
Wausau at Median of Comparison Utilities	**7.07**	**5.00**	**0.71**
Wausau at AWWA Benchmark	**3.95**	**5.00**	**1.27**

There are eleven F.T.E.s in water distribution who maintain 240 miles of water mains. This is a staffing ratio of 21.81 miles of water mains/F.T.E. which was the below the 23.78 miles of water mains/F.T.E. average of the group indicating WWW is staffed at a higher level. WWW would need 10.09 F.T.Es to be staffed at the average of the comparison utilities. The comparisons are shown in the chart and the table on the following page.



City/Water Utility	Distribution F.T.E.s	Miles of Water Mains	Miles of Water Mains/F.T.E.
Wausau	**11.00**	**240**	**21.81**
Appleton	14.00	390	27.86
Manitowoc	5.50	187	34.00
Oak Creek	6.51	195	30.00
Oshkosh	19.00	298	15.68
Average of Comparison Utilities	**11.25**	**268**	**23.78**
Median of Comparison Utilities	**10.25**	**247**	**24.05**
Wausau at Average of Comparison Utilities	**10.09**	**240**	**23.78**
Wausau at Median of Comparison Utilities	**9.97**	**240**	**24.05**

A summary of the staffing comparison shown below presents a mixed result. Total staffing comparisons shows the utility is understaffed in three of the four benchmark comparisons. Baker Tilly's benchmark database also shows total staffing would need to be at 19.23 F.T.E.s based on MGD/F.T.E. and 24.81 F.T.E.s based on customer accounts/F.T.E. Distribution seems to be staffed adequately, but the water treatment plant is staffed at a lower level than the comparison utilities and at a lower level than Baker Tilly's benchmark database which shows a staffing level of 4.95 F.T.Es would be needed. The overall understaffing is consistent with what was stated by most of the staff interviewed for this study. Understaffing is resulting in some maintenance functions not being performed. Examples include the exercising of water valves at the level established by the DNR and unidirectional flushing of water mains are not getting done. The WWW's consulting engineer advises that the current upgrades to the water treatment plant will create a need for additional staff to manage the new processes that will be added (ion exchange and GAC for PFAS).

Benchmark	Benchmark	Wausau Current F.T.E.s	F.T.E.s at Average	F.T.E.s at AWWA Median	Staffing Over (Under Average)
Total Utility Staffing	MGD/F.T.E.	18.00	17.90	23.81	0.10
Total Utility Staffing	Customer Accounts/F.T.E.	18.00	22.99	30.07	(4.99)
Distribution System	Miles of Water Mains/F.T.E.	11.00	10.09	-	0.91
Water Treatment Plant	F.T.E.s/MGD	4.00	7.07	3.95	(3.07)

RECOMMENDATION

Wausau Water Works should develop a plan to increase staffing in Drinking Water by two full-time equivalent employees to address the current shortage and by one additional full-time employee when the water treatment plant additions go into service.

Summary

A summary of the staffing recommendations is shown in the table below. Current Wastewater staffing is recommended to increase from 14.00 F.T.E.s to 17.00 F.T.E.s with the addition of 1.00 F.T.E. in collections and 2.00 F.T.E.s at the Wastewater Treatment Plant. An additional 2.00 F.T.E.s should be added at the Wastewater Treatment Plant when the additions go into service.

Current Drinking Water staffing is recommended to increase from 18.00 F.T.E.s to 20.00 F.T.E.s with addition of 2.00 F.T.E.s at the Water Treatment Plant. An additional 1.00 F.T.E. should be added at the Water Treatment plant when the additions go into service.

Wastewater	Current F.T.E.s	Recommended F.T.E.s	Recommended F.T.E.s Treatment Plant Additions In Service
Collection System	6.00	7.00	7.00
Wastewater Treatment Plant	6.00	8.00	10.00
Administration/Lab	2.00	2.00	2.00
Total Wastewater Staffing	**14.00**	**17.00**	**19.00**
Drinking Water	**Current F.T.E.s**	**Recommended F.T.E.s**	**Recommended F.T.E.s Treatment Plant Additions In Service**
Distribution System	11.00	11.00	11.00
Water Treatment Plant	4.00	6.00	7.00
Administration/Support	3.00	3.00	3.00
Total Drinking Water Staffing	**18.00**	**20.00**	**21.00**
Total F.T.E.s	**32.00**	**37.00**	**40.00**

4. Organizational Structure

The structure of any organization will evolve over time and is the result of the continual analysis of the evolving needs of each organization's ability to fulfill its vision. A sound and widely understood structure helps the organization to meet its goals while simultaneously ensuring that employees know how they fit into the larger organization and their role in achieving its goals. Effective organizational design helps to define the organization's purpose, accountabilities, and key performance indicators.

The WWW uses a functional organizational structure with Drinking Water in one branch and Wastewater in a separate branch of the chart. Drinking Water is organized with distribution and treatment in separate branches. Similarly, Wastewater is divided into three branches including Wastewater Plant, Wastewater Collection and Laboratory.

There were no concerns with the organizational structure of WWW. However, some staff stated that the organizational structure is not clearly understood by the staff and at times the chain of command was not followed. The impact of this is that at times some staff getting orders and direction from multiple managers and other staff are unsure who they report to within the supervisory chain.

RECOMMENDATION

The Drinking Water Superintendent and the Wastewater Superintendent should review the organizational structure with their respective staff to clarify the reporting relationships so staff are cognizant of who they report to and who should provide them with direction.

5. Observations & Recommendations

This section provides an overview of the identified observations and recommendations which were developed based on our assessment of the Wausau Water Works. The information provided is intended to address improvement opportunities observed throughout the study process and are offered as constructive suggestions for the enhancement of the Wausau Water Work's operations and service delivery over the long term. Each of the identified observations is based on the consulting team's experience and its analysis of the organization and operations of the Wausau Water Works and its departments. Each of the following observations is supported with evidence from the assessment which led to the conclusions. Specific recommendations for improvements are then provided to address the identified issues.

Observation: Technology needs to be improved in a number of areas

Our on-site interviews, observations, and review of data and information provided to us showed the Wausau Water Works has a number of technology needs. The needs identified include:

- Some staff lack laptops or tablets to make better use of SCADA
- Staff receives SCADA alarm calls on their cellphones but lacks the ability to use SCADA to see what the problem is that is causing the alarm.
- Timesheets are still done on paper
- There are no computers in the plant for staff, only one shared computer
- GIS mapping is not up to date
- A water meter inventory system is needed
- Some staff use their personal cell phones (Water Treatment- Administrative staff requested phone stipends/business phone but the request was denied. They are currently using their personal phone for work)
- There is no maintenance management system in place
- There is no customer complaint software. Complaints are recorded on paper forms that are later scanned into digital and entered into Excel

These may be driven in part because the Water Works does not have a technology plan. A technology plan should address:

- The Water Works' long-term technology goals
- What technology is the Water Works is currently using
    - What is working
    - What needs improvement
- What technology skills does the Water Works' staff have
- Who provides technology support
- What technology does the Water Works need to provide its services
- Solutions to meet the Water Works' needs
    - Hardware
    - Software
    - Staff training
    - IT support

RECOMMENDATION

Wausau Water Works should develop a technology plan to improve its use of technology in providing services and the efficiency of its staff.

Observation: The current compensation structure is not competitive with the market

The current compensation paid to Water Works' staff is a significant issue for the staff and was mentioned universally in our on-site work. A comparison of the mid-point compensation for several representative Water Works positions was made with those utilities selected for the staffing comparison benchmarks to gain a better understanding of the current situation. This comparison showed Water Works compensation for those positions was less than all the benchmark utilities for each position with one exception. The Lab Technician position was compensated less than three of the comparisons and greater than one. Overall, all of the Water Works positions were paid less than average of the benchmark utilities. The compensation comparisons are shown below.

Position	Wausau Current Pay (Midpoint)	Oshkosh	Appleton	Fond Du Lac	Manitowoc	West Bend	Average of Comparable	Wausau Above (Below) Average
Water Superintendent	$ 37.74	$ 46.67	$ 45.95	$ 48.91		$ 41.91	$ 45.86	(8.12)
WW Superintendent	$ 37.74	$ 46.67	$ 45.95	$ 48.91	$ 42.71	$ 41.91	$ 45.23	(7.49)
Water Supervisor	$ 28.85	$ 38.53	$ 41.22	$ 34.76		$ 37.29	$ 37.95	(9.10)
WW Supervisor	$ 28.85	$ 35.83	$ 41.22	$ 34.76	$ 38.22	$ 37.29	$ 37.46	(8.61)
Water Plant Operator	$ 25.77	$ 28.91	$ 29.45	$ 27.38		$ 29.54	$ 28.82	(3.05)
WW Lab Tech	$ 25.77	$ 28.91	$ 24.74	$ 27.38			$ 27.01	(1.24)
Sr. Water Distr. Maintainer	$ 25.77	$ 28.91	$ 27.08	$ 27.38			$ 27.79	(2.02)
Sr. WW Collection Maintainer	$ 25.77	$ 28.91	$ 27.08	$ 27.38			$ 27.79	(2.02)
Sewer Maintainer	$ 24.09	$ 25.88	$ 27.08	$ 24.91			$ 25.96	(1.87)
Water Maintainer	$ 24.09	$ 25.88	$ 27.08	$ 24.91			$ 25.96	(1.87)
Plant Mechanic Sewer	$ 25.77	$ 28.91	$ 27.08	$ 27.38	$ 29.21	$ 29.54	$ 28.42	(2.65)
Plant Mechanic Water	$ 25.77	$ 28.91	$ 27.08	$ 27.38		$ 29.54	$ 28.23	(2.46)
Admins	$ 21.97	$ 22.85	$ 24.74	$ 22.46	$ 24.73	$ 24.82	$ 23.92	(1.95)

In addition to the compensation level concerns, the staff at Water Works sees no incentive or value in learning new skills since it does not affect their compensation. Skills such as DNR certification for operator licenses, Electrical and Instrumentation Technician, and other that would benefit both the employee and Water Works. As a result of this, there are only two staff members that have DNR licenses for the majority of the subclasses (EI, solids treatment, disinfection, laboratory, collection system, and other).

The City has retained a consultant to perform a compensation and market study that should provide a more detailed analysis of the current situation and enable the Water Works to address the compensation issue.

RECOMMENDATION

Water Works should review the compensation and market study when completed and make appropriate compensation adjustments to retain current staff, attract new employees as needed, and to provide an incentive for staff to improve their skills.

Observation: The requirement that a commercial driver's license is required as a condition of employment for some positions makes hiring new employees difficult.

During our on-site work, the need for a commercial driver's license (CDL) as a condition of employment was mentioned as a barrier to attracting and hiring new employees. A review of positions descriptions finds that six positions require a CDL as a condition of employment. These include:

- Water Plant Operator
- Water Distribution Supervisor
- Senior Water Plant Operations Technician
- Senior Water Distribution Maintainer
- Collection System Supervisor
- Sewer Maintainer

Five other positions require a CDL be obtained within a specified time period of hire (six to eighteen months).

To the extent the requirement for a CDL in the current job market makes hiring needed staff a problem, the Water Works should review this requirement to allow an employee to obtain the needed CDL within a reasonable time after hire.

RECOMMENDATION

Water Works should review the requirement for a CDL as a condition of hire if it presents a barrier finding new employees in the current job market and make appropriate adjustments such as within six months of hire to fill needed vacancies.

Observation: There is no succession plan in place to replace employees who retire.

Wausau has employees who are eligible to retire and others who will be eligible to retire in the next five to ten years. Employees retiring in the near future will leave with a wealth of knowledge about the Wausau Water Works and its operations. The Water Works should begin the process of succession planning to fill these positions as retirements commence. The strategies should include:

- Develop a mentoring program to train replacement staff and to transfer the institutional knowledge of the retiring staff to their replacements
- Hire replacement staff in advance of retirements so they can be mentored as stated above
- Have existing staff document their current practices and knowledge to establish a written record and to create standard operating procedures
- Evaluate the market compensation of the current positions to ensure it can attract qualified candidates

The process of succession planning will enable the Wausau Water Works to transition through these retirements without losing institutional knowledge and ensure Water Works operations will continue without loss of efficiencies.

RECOMMENDATION

Wausau Water Works should begin the process of succession planning to transfer the knowledge of its current staff who will be eligible to retire in the next five years to their replacement staff.

Observation: Safety training needs to be improved.

The employee training program currently consists primarily of safety training videos provided by the City's insurance company that employees can only watch on their computers. These videos were largely described as "horrible". Safety training for employees is an important function of the Water Works to reduce on the job injuries and lost time due to accidents. The Water Works should review its current employee safety training program to improve both employee interest in and delivery of the program. The training program should recognize that employees learn in different ways. Some learn visually through images and videos other learn more effectively through reading materials to digest the information. An effective safety training program should provide opportunities to engage employees in learning experiences that recognize the differences in their preferred way of learning.

RECOMMENDATION

Wausau Water Works should review its safety training program to improve both employee interest in and delivery of the program.

Observation: Employee training needs to be improved.

Employee training outside of safety training was consistently mentioned as an issue. Employees indicated that there is no formal training program and training was basically limited to that necessary to keep their DNR certificates. The shortage of staff was cited as a reason for the lack of training. A specific need to train other staff in electrical instrumentation and to achieve the DNR Wastewater Certification was also identified.

Training is important because it provides an opportunity for employees to grow their knowledge base and improve their job skills to become more effective in the workplace. The benefits of employee training include the following:

- Improves employee knowledge and skills
- Prepares employees for greater responsibilities
- Shows employees they are valued
- Increases productivity and performance
- Boosts employee morale
- Improves employee retention

I am reminded of a post on LinkedIn some time ago:

> *CFO asks the CEO, "What happens if we invest in developing our people and they leave us?"*
> *The CEO responds, "What happens if we don't and they stay?"*

RECOMMENDATION

Wausau Water Works should develop an employee training program to provide opportunities for its employees to improve their skills and to obtain additional DNR certifications.

Observation: There is no formal inventory control system in place.

There is no single person in charge of inventory control and management and there is no formal inventory management system. Inventory management would allow the management of inventory from purchase to use. An effective inventory management system would benefit the Water Works in a number of ways:

- Provide an accurate measure of inventory including number and type of each asset
- Document when an asset is received and when it is taken out of inventory, who took it, and where it was placed into service
- Enable the Water Works to ensure it has a sufficient inventory of parts in stock to respond to operational needs and emergencies

RECOMMENDATION

Wausau Water Works should develop an asset inventory system to management and track replacement parts and other inventory accurately.

Observation: Communication between Water Works and the City could be improved.

Communication internally within Water Works was reported as good by staff. However, communication between Water Works and the City was stated to need improvement. Communication is frequently cited as an issue in organizational management studies. Recognizing that communication is a two-way street, the Water Works should meet with City staff to identify opportunities to improve communication and sharing of information.

RECOMMENDATION

Wausau Water Works should meet with the City to identify opportunities to improve communication and sharing of information.

Observation: Job descriptions are not accurate and are missing critical technical language and skill gaps.

Our on-site interviews indicated that some job descriptions were not accurate and are missing critical technical language and skills. There were also comments that the former City Human Resources Director edited job descriptions to remove technical skills with the belief this was done to reduce the compensation for those positions. The City is currently undertaking a compensation market study. However, the Request for Proposals for this study did not include updating job descriptions as part of the scope. Accurate job descriptions provide a several benefits for Water Works including:

- Recruiting candidates that are a good fit for the position
- Setting clear expectations for employees of the responsibilities of their positions
- Provides a tool for evaluating employee performance based on defined job duties
- Identifies training needs for the position
- Offers protection after termination when an employee performance does not meet the standards defined for the position by the job description
- Enables the Water Works to make valid compensation comparisons with other similar entities based on actual position knowledge, skills, and abilities

Water Works should review the current job descriptions to identify technical and skills gaps and update them to eliminate any discrepancies. Once updated, they should be shared with employees so that everyone understands the requirements for their positions which will eliminate any misunderstandings.

RECOMMENDATION

Wausau Water Works should review the current job descriptions to identify technical and skills gaps and update them to eliminate any discrepancies. Once updated, they should be shared with employees so that everyone understands the requirements for their positions which will eliminate any misunderstandings.

Observation: Some maintenance functions are not being performed

A number of maintenance requirements for the water and wastewater operations are not being performed. Wastewater has a goal of cleaning 20% and televise 10% of the sewer collection system each year but staff shortages have resulted in not achieving this goal. In the past year they estimate only 10% of the collection system was cleaned and 5% of the collection system was televised. The goals established are industry standard for wastewater utilities which are in place to prevent sewer backups into customers houses and businesses due to blockages that could have been cleared through routine cleaning and to identify areas where pipe failures or other problems exist so they can be repaired.

In addition to the collection system maintenance issue discussed above, staff indicated that lift station maintenance is not getting done due to staff shortages and that lift stations are only checked every other week. Lift station maintenance ensures they will continue to operate as needed which will prevent sewer backups. The industry standard for checking lift stations is weekly although the

frequency should be based on the size of the lift station with larger lift stations checked more frequently often on a daily basis.

Water distribution system valves require periodic turning, often called “exercising,” to keep them from seizing or freezing up due to corrosion and tuberculation, and to ensure they are fully operational when needed. Generally, critical valves (those on water mains serving hospitals, restaurant or industrial areas that have stringent needs for regular water delivery and those on major supply lines) should be exercised more frequently. Some utilities exercise critical valves yearly. Other valves are typically exercised on a three to five-year cycle. The Water utility indicates the Wisconsin DNR Administrative Code requires WWU to exercise 1,200 valves each year based on a five-year rotation, but WWU requested and was granted a variance to exercise valves on a ten-year rotation which requires 600 valves be exercised each year. However, they have only exercised about 100 so far this year which is again attributable to staffing shortages.

Uni-directional flushing of water lines is another maintenance that is not getting done. This flushing is performed to clean the water mains, possibly prevent nitrification, and improve water quality. The flushing was recommended as part of a corrosion control treatment study done after a lead exceedance in 2014.

The cleaning and televising of the sewer collection system, the maintenance and checking of lift stations, the exercising of water distribution system valves, ands unidirectional flushing of water mains are important operational functions that need to be done on a regular basis. Water Works should address these maintenance issues either through additional staffing, contracting them out to a private service provider, or some combination of these.

RECOMMENDATION

Water Works should address sewer collection cleaning and televising, maintenance and checking of lift stations and the exercising of water distribution valves either through additional staffing, contracting them out to a private service provider, or some combination of these.

Department of Public Works & Utilities

Eric Lindman, P.E.
Director of Public Works and Utilities

TO: Wausau Waterworks Commission
Prepared in consultation with Donohue & Associates

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

DATE: January 9, 2023

SUBJECT: LSLRP Proposed Pilot – 2023

At the November 1, 2022 meeting the attached presentation was provided on the Lead Service Line Replacement Plan (LSLRP) it was recommended for the utility to complete a "Pilot" replacement plan for the private side LSL's. This Pilot would be a small area of known private side LSL's and would allow the utility to implement the LSLRP at a small scale to determine what aspects of the plan may need to be changed or improved.

The city is completing the reconstruction of Henrietta St, which includes water, sewer and stormwater utility replacement. This is an area with a significant number of known LSL's and would be a good Pilot project for the LSLRP to be tested in 2023.

Currently there is no funding allocated for LSL replacement on the private side. The utility has submitted a funding request to the WDNR for LSL replacement funding in 2023 but we will not know if this is available until summer of 2023. It would be proposed to request ARPA funds to fund this Pilot program for 2023. One of the decisions that needs to be made is if the utility/city will be providing 100% of the funding for private LSL replacement, a percentage of the private LSL replacement or a maximum amount per site for private side LSL replacement. This area has about 50 private LSL's to replace and the following is a couple cost estimate examples:

LSLRP 2023 Pilot Program Cost Comparison - Henrietta St		
Using estimate of 50% of construction cost		
Private LSL's	Cost Allocation	Total City Cost Est.
40	$3,400.00	$136,000.00

Using flat cost per site ($4,000)		
Private LSL's	Cost Allocation	Total City Cost Est.
40	$4,000.00	$160,000.00

There are many scenarios to fund all or a portion of the work on the private side but the consideration that would be important is the precedence that will be set if you choose to move forward with the Pilot. If you choose to fund the LSL at 100% for the Pilot it would be expected the remaining LSL's within the city would also be funded at 100%. If you choose to set a lump sum per site then it would expected the remaining sites in the city would also be set as a lump sum. In this scenario it would be important to also consider a possible escalator year to year to account for increased costs as this is a program expected to span 15+ years.

Establishing a Pilot for 2023 is going to be difficult for staff as the construction project is expected to begin in May 2023. This gives us a tight window to put everything in place; approval of funding, begin the communication plan, get commitments from homeowners, verify LSL's, bid out the work and establish a contract all by early summer.

Wausau Water Utility
LSL Replacement Plan

Matt Bednarski, PE
Amrou Atassi, PE, BCEE

Nov 1, 2022

CDM Smith

Clark Dietz
Engineering Quality of Life®

Agenda/Outline

- Material Inventory Background and Review
- Annual LSLR Targets
- Prioritization Strategy
- Policy Discussion
- Funding
- Public Outreach
- Next Steps

Decision Points/Considerations for LSLR Program

- Mandatory replacement ordinance
- PSC approval to use revenue rates to pay for LSL replacement on private side
- Subsidizing private side LSL replacement and/or loan
- 15-year timeline to complete all replacements

Material Inventory Background and Review

Service Material Inventory – All Systems

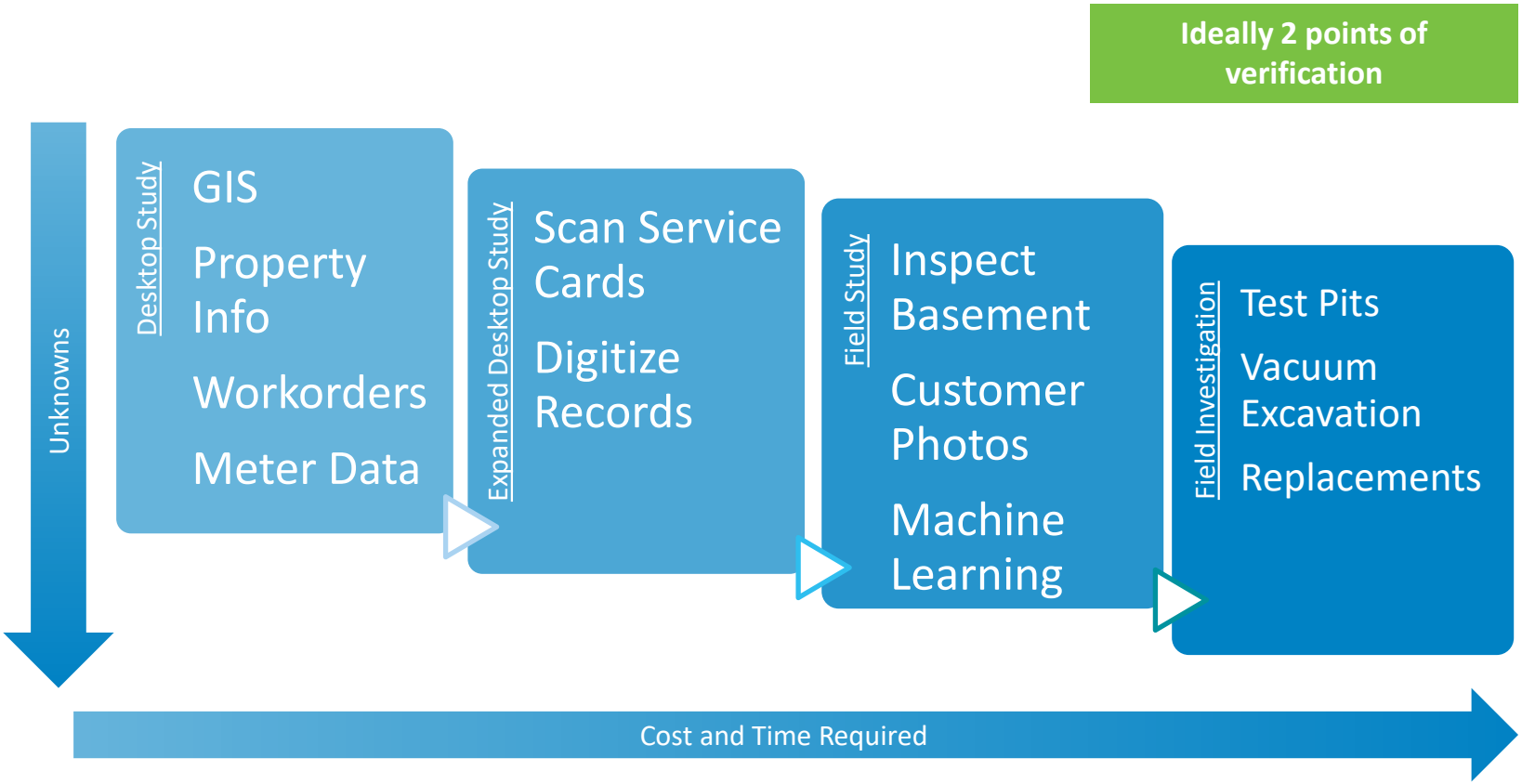
- By Oct 2024, inventory materials for **both**:
  - Utility-owned
  - Privately-owned
- Must include ALL service lines, without exclusions
- Update annually with replacements/new information
  - Triennially if on triannual monitoring
  - Updates not required if all non-LSL services
- Make publicly available
  - Large systems (over 50,000) – publish online
- Notify homes annually with LSL or “lead status unknown”

Existing Material Inventory

Material	Public-Side Services	Private-Side Services
Lead	4,868	1,048
Not Lead	10,175	621
Galvanized	3	119
Unknown	*393*	*11,105*
Total	**15,439**	**15,439**

October 2022

Inventory Development Process



Annual LSLR Targets

Program Timeline and Replacement Goals

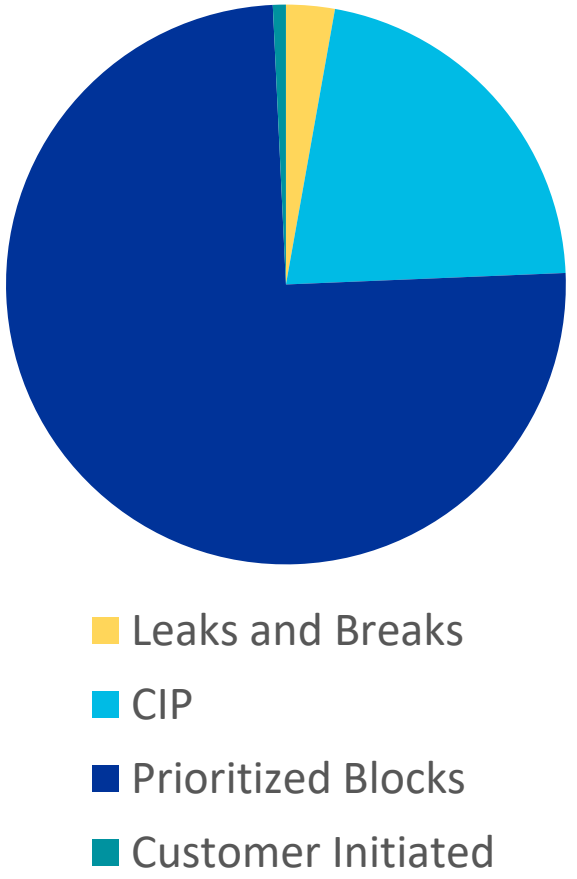
Parameter	15-Year Goal	3% Annual Replacement Federal LCR-R(2)	Replacement if All Unknowns are LSLs (23-Year)
Total Number of LSLs	8,000 LSLs	8,000 LSLs	12,000 LSLs (3)
Annual LSLR Replacements	540 (6.7%)	240 (3%)	540 (4.5%)
Annual Cost (1)	$5,400,000	$2,400,000	$5,400,000
Annual Private Side Cost	$2,700,000	$1,200,000	$2,700,000

(1) Based on $10,000 cost full LSLR
(2) Replacement rate required after an action level exceedance
(3) Worse case scenario and unlikely to be this high based on size and age of services

Approximate LSLR Program Breakdown

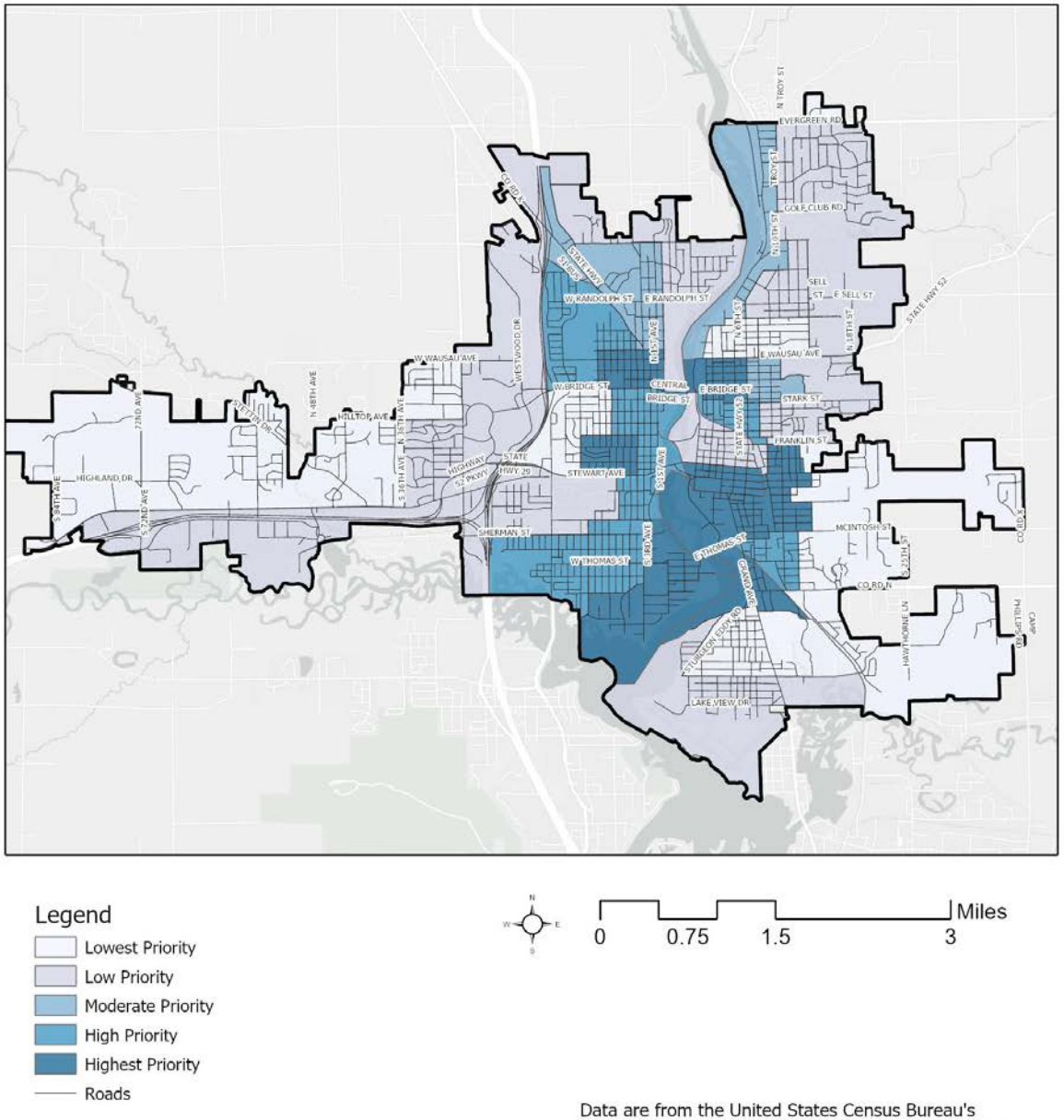
Program	Typical Number of Annual LSLR
LSLR Following Lead or Breaks	10-20
LSLR Alongside Water Main Replacements (CIP)	75-150
Prioritized Block Replacements*	350-450
Customer Initiated	<5

*Early program years will also include individual LSLR of priority locations, such as schools and daycares



Prioritization Strategy

Overall Prioritization

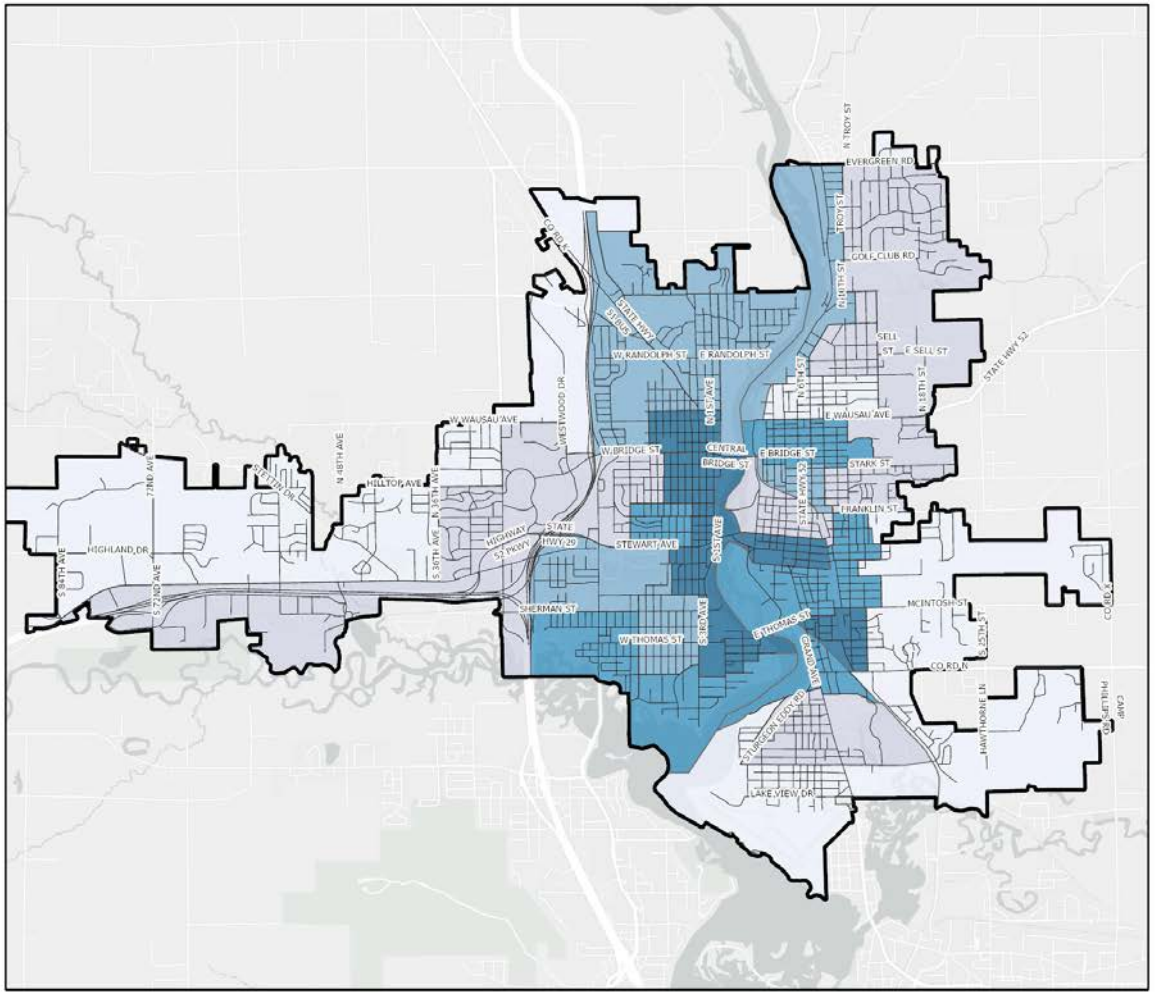


Prioritization Factors

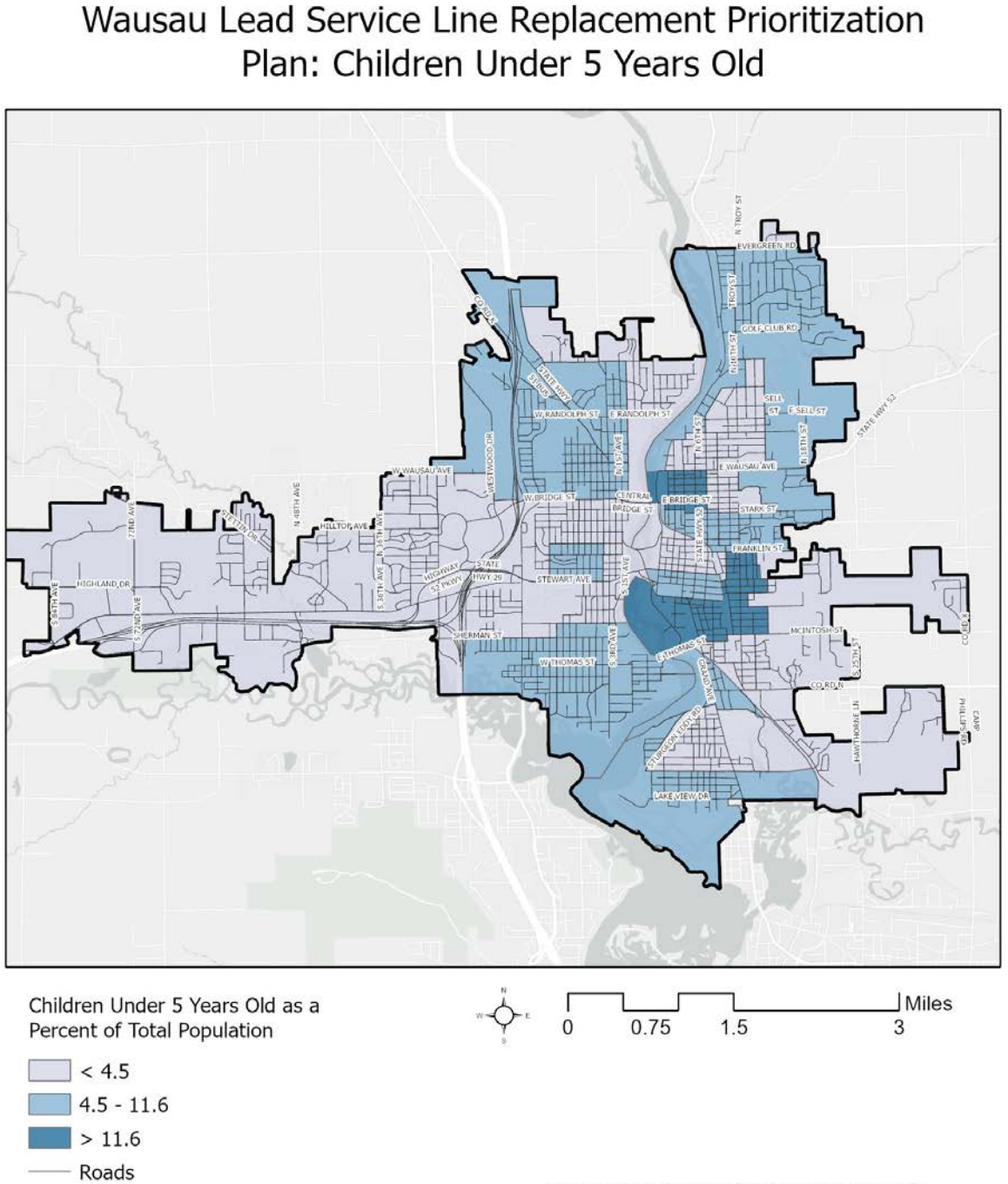
Parameter	Description	Weight	1	2	3	4	5
Environmental Justice Analysis (EPA Index)	EPA defined index that includes income and demographic data	1	<=0.17	0.18-0.22	0.19-0.32	0.35-0.59	>=0.6
Percent Children under 5 (Census Data)	American Community Surveys population data	1	< 4%	n/a	4%-10%	n/a	>10%
Median Household Income (Census Data)	American Community Surveys population data	1	>$80k	$60k-$80k	$40k-$60k	<$40k	n/a

Environmental Justice

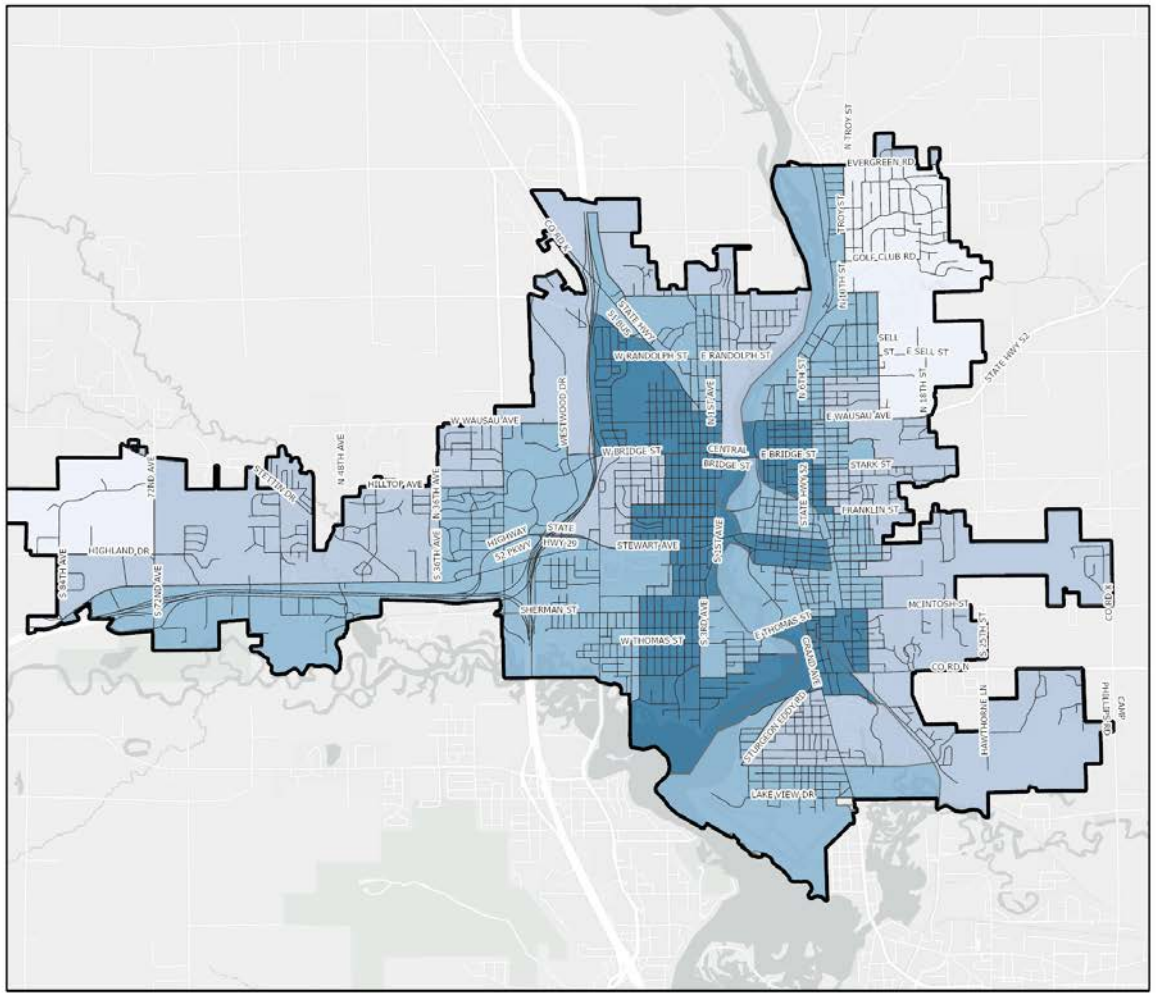
Wausau Lead Service Line Replacement Prioritization Plan: Potential Environmental Justice Populations



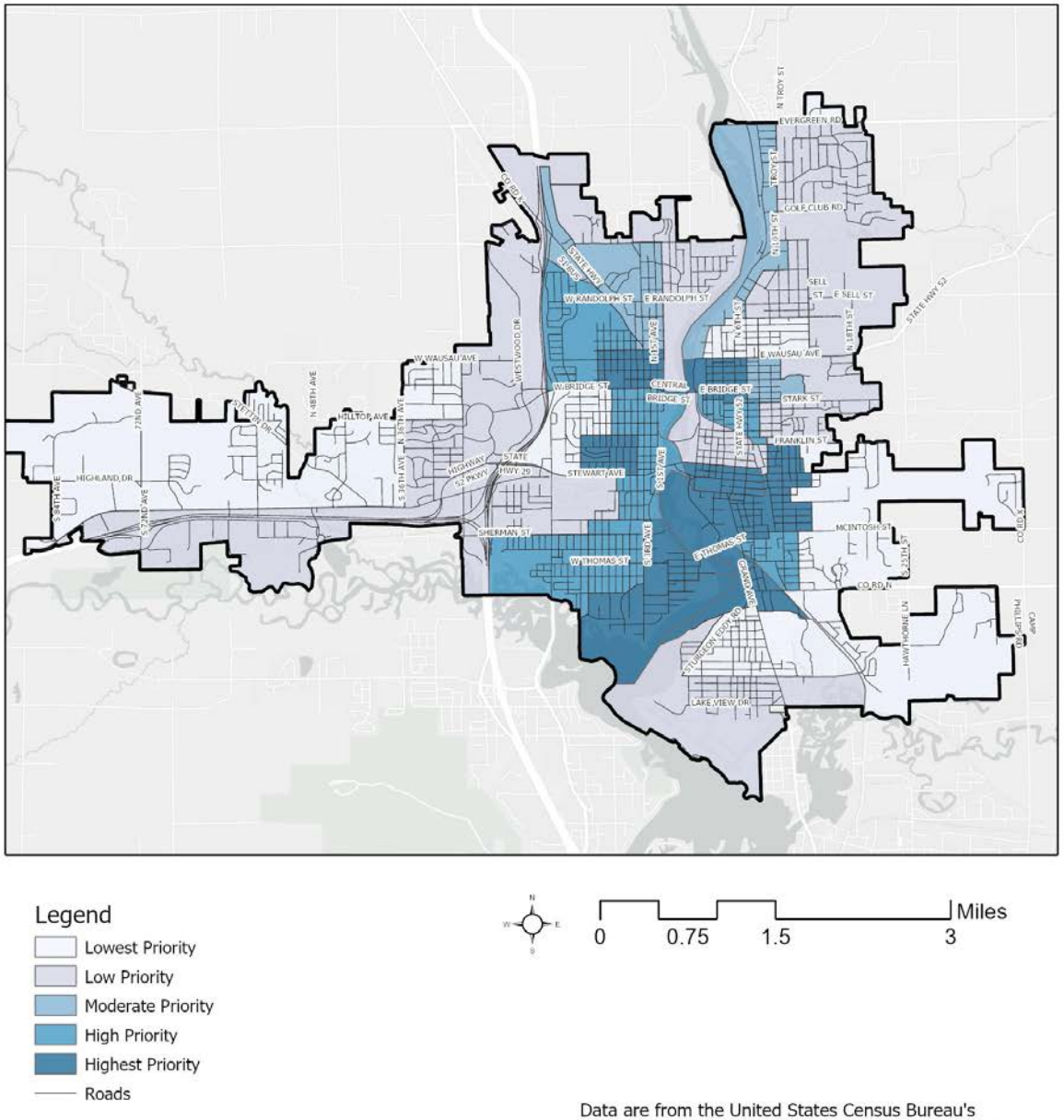
Children Under 5



Median Household Income



Overall Prioritization



Policy Discussion

Policy Decisions

- *Cost Subsidy for Private Side Replacement*
  - Fully or partially subsidize the LSLR that are WWW-initiated (full or partial)
- *Homeowner Initiated Support*
  - Partial or no private-side subsidy if homeowner is replacing LSL outside of WWW Program
- *Restoration*
  - Fully restore the exterior and patch the home interior
  - Final restoration of the interior left to the homeowner
  - Allowances to homeowners?

Private-Side Subsidies

- Benefits:
  - Increase Participation: No replacement credit given for partial LSLR
  - Increase Program Equity: Low-income areas receive similar number of replacements to high-income areas
  - Simplify full LSLR: Reduces the need to coordinate multiple contractors on a site
- Negatives:
  - Increase Program Costs: Requires additional funding to be dedicated to the program
  - Increased Program Duration: Higher costs may reduce the number of LSLR per year, extending out the program
  - Public Complaints: Residents without LSLs may not want taxes/water revenue going to LSLR subsidy

Legal Considerations

- Ordinance to require LSLR when offered?
  - Immediate vs depending on participation rates
  - Penalties for non-compliance
- Consent from homeowners vs tenants
  - Documentation (ID?)
- Requirements for presence during the work
- Waiver documentation for non-participation

Funding

Funding Options

$5.4 M annually for 15-year Program:

- Grants
- Loans
- Water Rates
- Taxes and Fees

Grants/Loans Funding Sources

- HUD CDBG
- EPA WIIN
- WDNR SRF Program
  - Additional funds under Bipartisan Infrastructure Law
- ARPA funds allocated to water fund

- TIF (when available)

Grants

- Community Development Grants (CDBG):
  - Must provide 51% of benefit to low-income households
  - Need to individually qualify homeowners for private home LSLR
- EPA WIIN:
  - Competitive grant
  - Prioritizes communities with lead exceedances

ARPA - Became Law

- Treasury clarifies that the $350 billion State and Local Fiscal Recovery Fund provided in the American Rescue Plan Act (ARPA) can be used for lead service line and lead faucet and fixture replacements
- Can be used for private property LSLR

Bipartisan Infrastructure Law - Became Law

- EPA will allocate $2.9 billion for LSLR in 2022 (about $15 billion over 5 years)
- Any project funded under this appropriation must replace the entire LSL, not just a portion, unless a portion has already been replaced
- Also funds an additional $11.7 billion in SRF funding, LSLR is eligible

SRF Funding Program	Total Funding	State Match	Additional Subsidy	Eligible for Additional Subsidy
Clean Water SRF Supplemental	$11,713,000,000	10% in 2022 & 2023 20% in 2024 - 2026	49%	Assistance recipients that meet the state's affordability criteria or project types as described in section 603(i) of the CWA.
Drinking Water SRF Supplemental	$11,713,000,000	10% in 2022 & 2023 20% in 2024 - 2026	49%	Disadvantaged Communities
Clean Water Emerging Contaminants	$1,000,000,000	0%	100%	No restriction
Drinking Water Emerging Contaminants	$4.000.000.000	0%	100%	25% for Disadvantaged Communities or Public Water Systems Serving Fewer Than 25.000 Persons
Drinking Water Lead	$15.000.000.000	0%	49%	Disadvantaged Communities

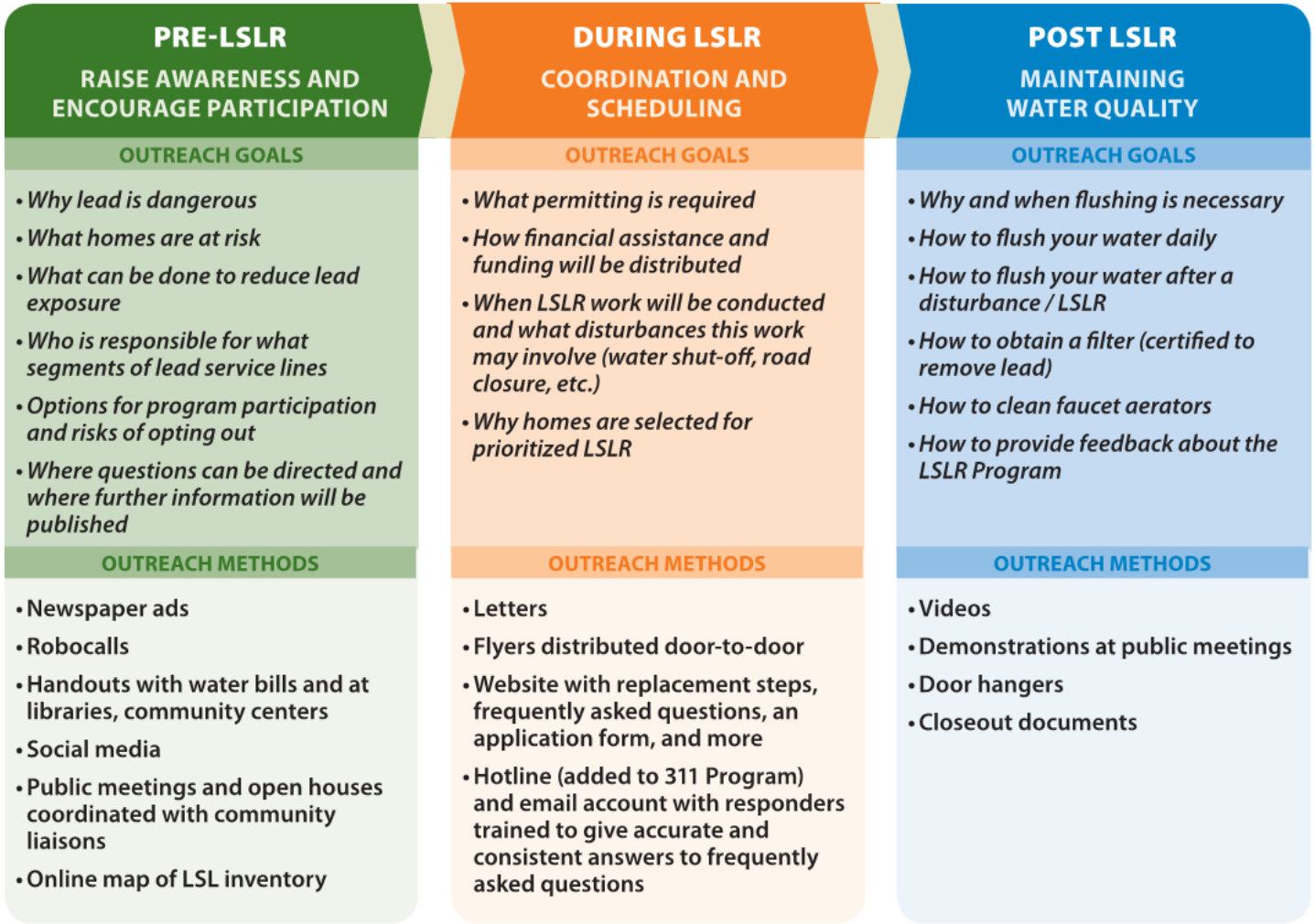
Taxes and Fees

- Water rates
- General tax revenues
- City-Wide Special Assessment
- Project-Based Special Assessment

- Considerations:
  - Paying the tax/fee before your LSLR
  - Discount from tax/fee for low-income users
  - Tax/fee variation by income

Public Outreach

Public Outreach

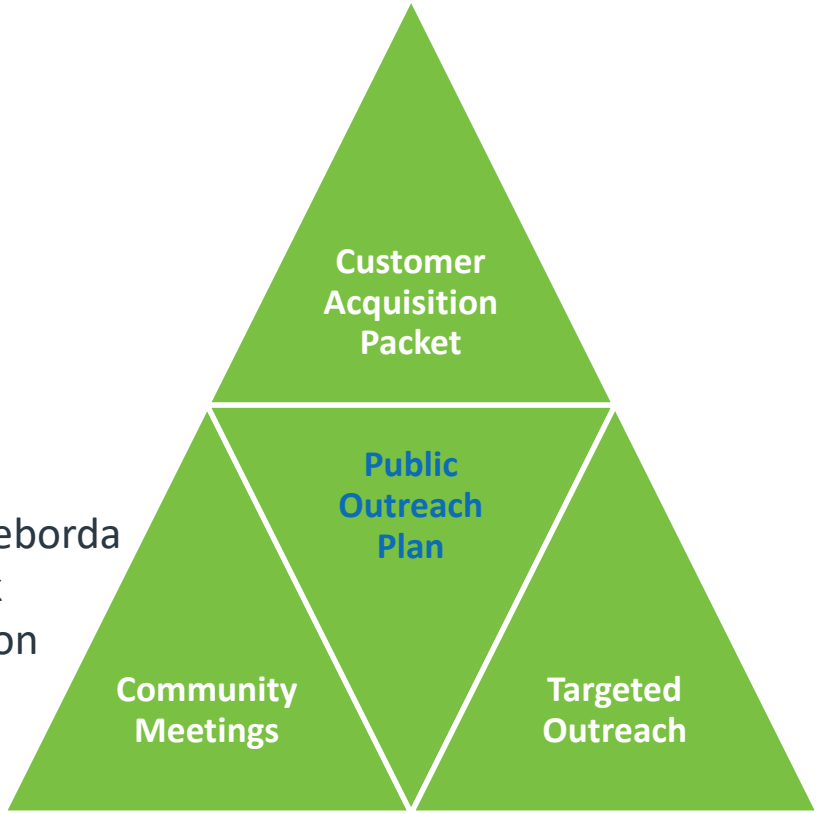


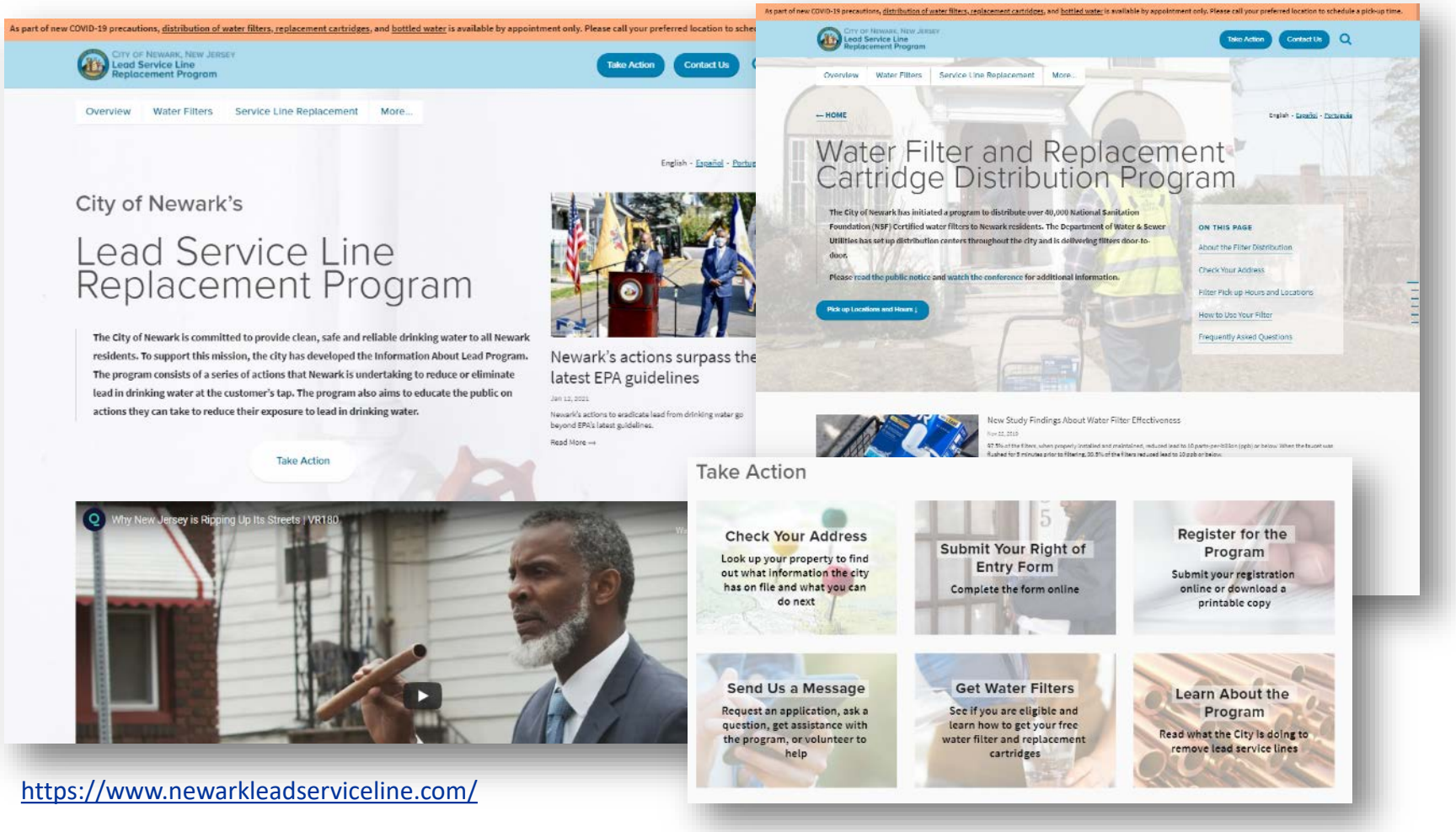
List of CBOs

- Childcaring (Mosinee) for list of Childcare facilities - Micki Krueger

- Neighborhood Associations:
  - Athletic Park Neighborhood Group – Jaci Kell
  - East Towne Neighborhood Group – easttowneneighborhood@gmail.com
  - Forest Park Neighborhood Group – Marie Schmidt
  - Grant Neighborhood Group – Jennifer Gabriel
  - Longfellow District – Brooke Mueller
  - Northwest Neighborhood Group – Mary LeBrun
  - Riverview Neighborhood Group – Carlos Etchepareborda
  - Southeast Side Neighborhood Group - Sue Nowak
  - SW Jones District Neighborhood Group – Lou Larson
  - Werle Park Neighborhood Group – Deb Ryan
  - Westies Neighborhood Group – Deb Ryan

- Faith in Action – Ruth Hebbe (elderly population)





https://www.newarkleadserviceline.com/

- https://www.twwleadprogram.com/
- https://www.twwleadprogram.com/sign-up

Questions

Next Steps

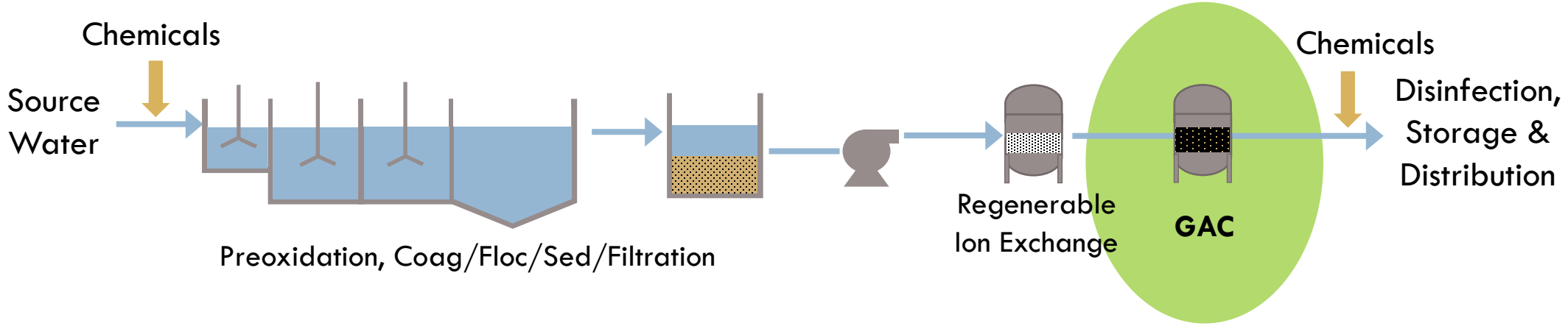
- Review list of decisions/considerations
- Finalize Plan and submit to WDNR for review
- Initiate material inventory efforts (amendment underway from Clark Dietz)
- Consider pilot project in 2023 to gather lessons learned

Wausau Water Works Commission

PFAS Treatment Project Update

January 9, 2023

PFAS Treatment System



PFAS Treatment Objective: Remove PFAS to Levels Below Current and Anticipated Future Standards

PFAS Treatment System:

- 12 vessels
- Configured as 6 pairs
- New building north of Structure 100

Bipartisan Infrastructure Law (BIL) Funding for Emerging Contaminants (EC)

SFY23

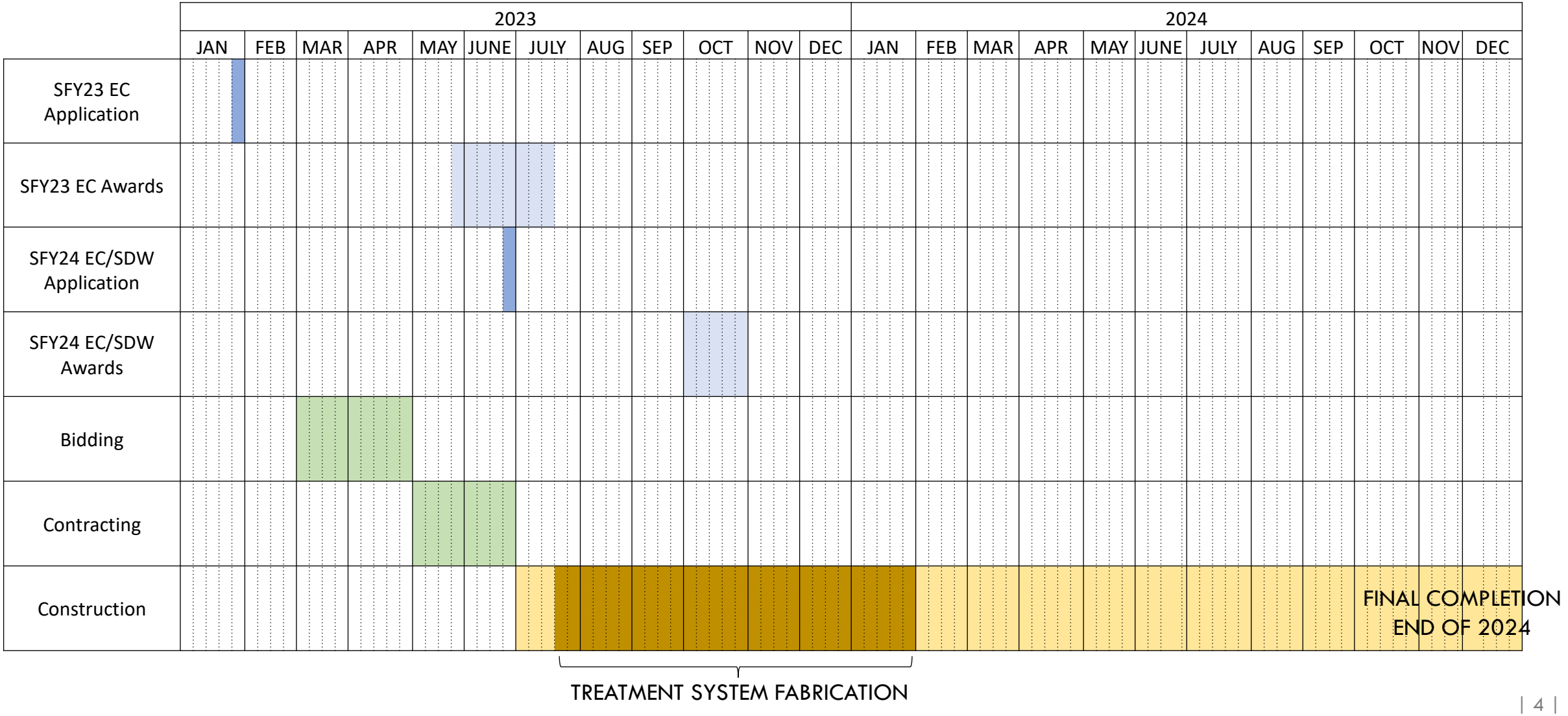
- Stand alone program
- Wausau will apply by January 31, 2023 deadline
- Awards expected late Spring/early Summer 2023
- $12.8 million available
- Up to $5 million per municipality

SFY24

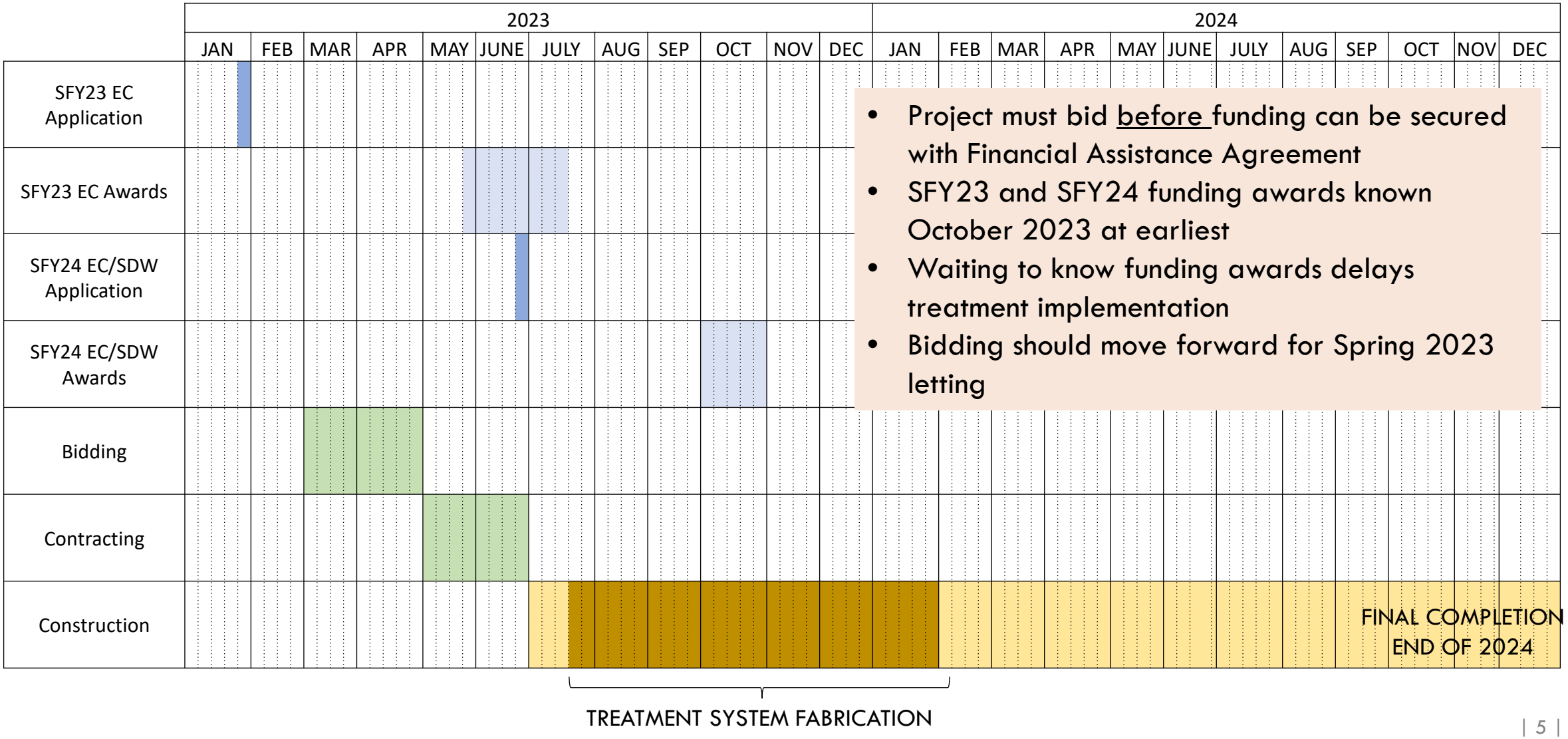
- Coupled with regular Safe Drinking Water (SDW) funding
- To be detailed in Intended Use Plan published Spring 2023
- Wausau will apply by June 30, 2023 deadline

Hold Harmless Clause: Municipalities allocated Principal Forgiveness (PF) in SFY23 and SFY24 will have opportunity to chose which PF offer to use. More PF will be available in SFY24.

Project Funding Schedule



Project Funding Schedule Commentary



- Project must bid <u>before</u> funding can be secured with Financial Assistance Agreement
- SFY23 and SFY24 funding awards known October 2023 at earliest
- Waiting to know funding awards delays treatment implementation
- Bidding should move forward for Spring 2023 letting