



Rye Water District Level of Service Public Meeting

March 9, 2023

Agenda

- The purpose of the “Level of Service” work
- Review and discuss the “Level of Service” survey results
- Discuss efforts to reduce the taste and smell from chlorination
- Managing iron in the system
- Safety concerns
 - Fecal Coliform
 - Manganese
 - PFAS compounds
- Potential partnerships
- Q & A

Overview of “Level of Service”

- A Level of Service Agreement defines how the utility owners, managers, operators and customers **want the system to perform** over the long term.
- Refining the District’s Level of Service Agreement is part of our asset management planning effort.
- The District’s Level of Service Agreement reviewed on a regular basis.
- Survey feedback and discussion will inform modifications the District’s Level of Service Agreement.

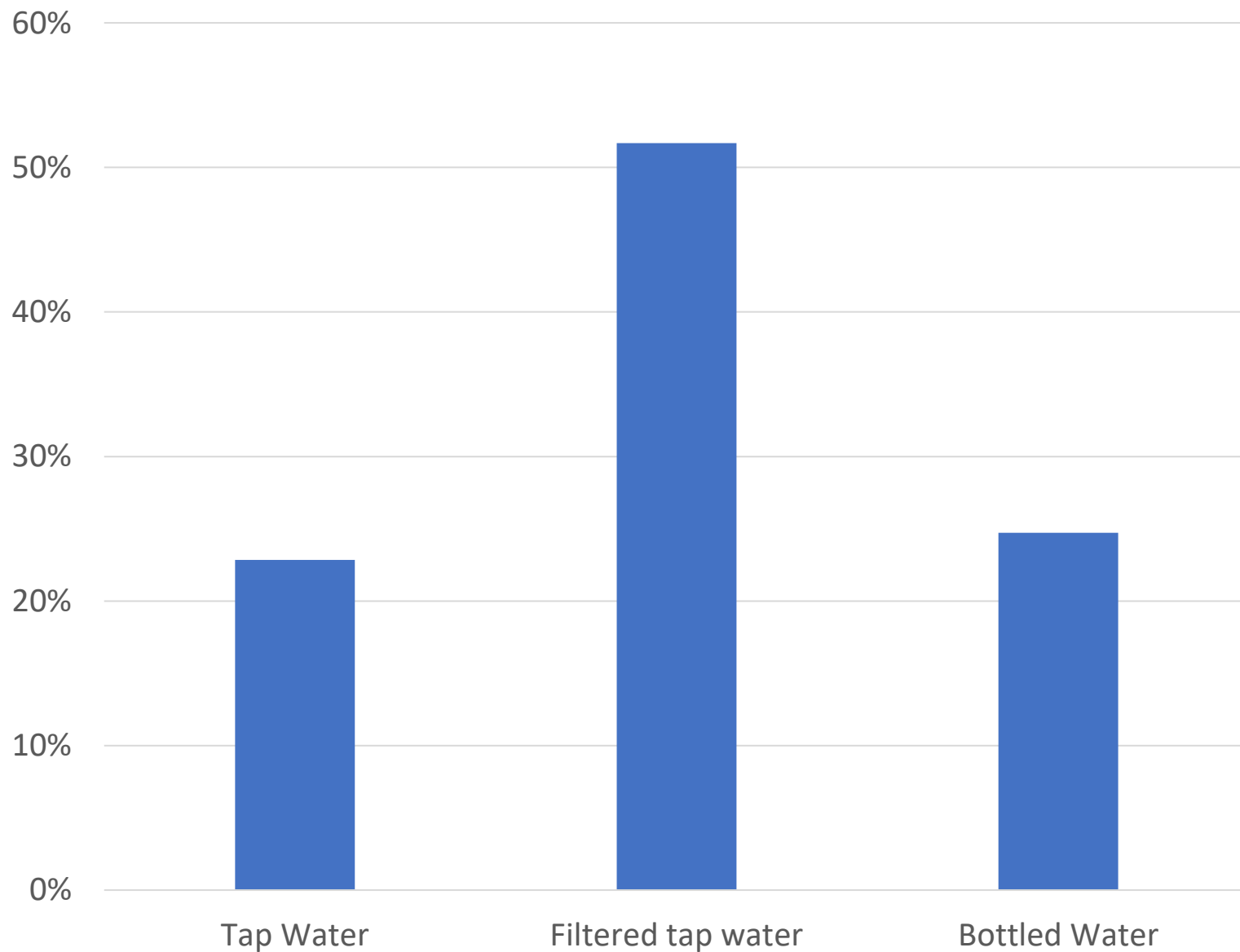


Survey Methodology

- As part of the Rye Water District's responsibility to evaluate the perceived level of service, the district conducted an online survey of RWD customers.
- The survey was developed by our contractor (Wright-Pierce), the Commissioners, and our staff.
- Customers were notified to respond via postcards, our website, and the Town Newsletter.
- 270 people responded to the survey, or about 16% of our customer base

Type of Water

What Type of Water Do You Drink Most Often?

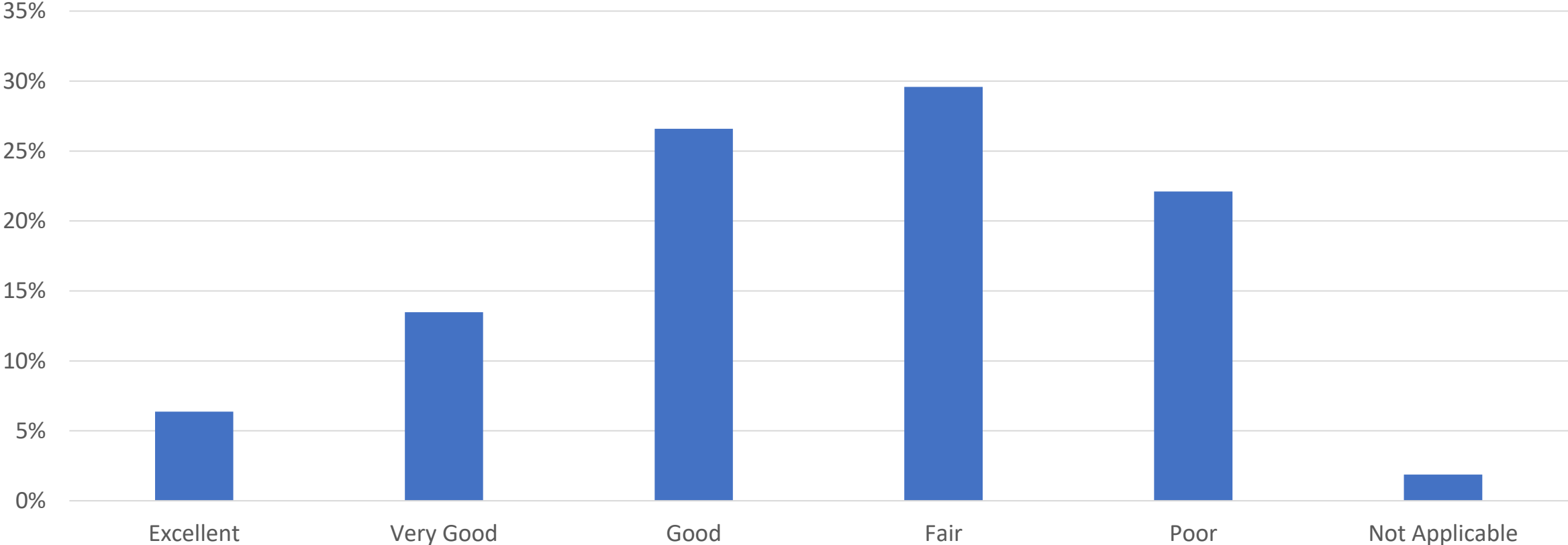


Why don't
you drink
unfiltered
tap water?

- **137 people responded to this prompt**
- The majority of people who responded to this question expressed concerns with the smell or taste of the water now that it is chlorinated.
 - What is not clear is whether these respondents were drinking tap water previously.
- A substantial number of respondents indicated concerns with the safety of the water regarding PFAS compounds

Views of Water Quality

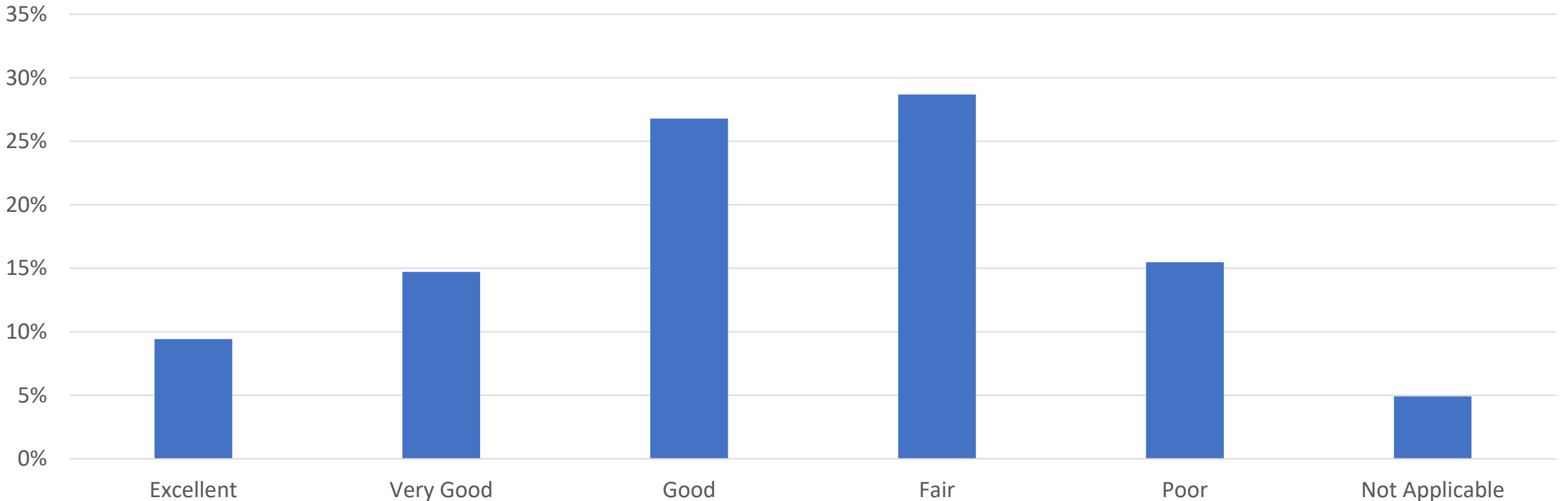
Rate the Water Quality of Water



Perceptions of Safety of Rye Water

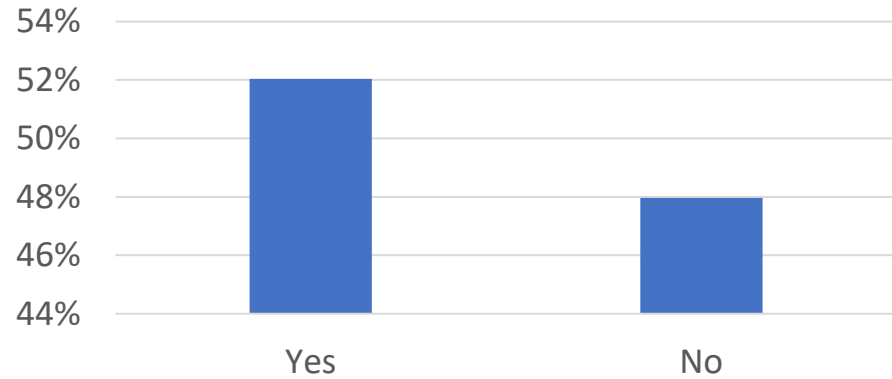


Rate the Safety of Water Delivered by RWD

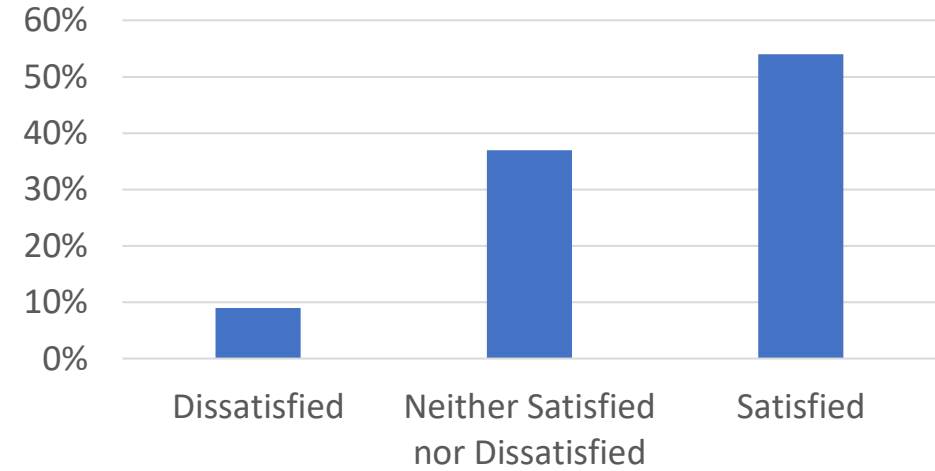


Interactions with RWD Staff

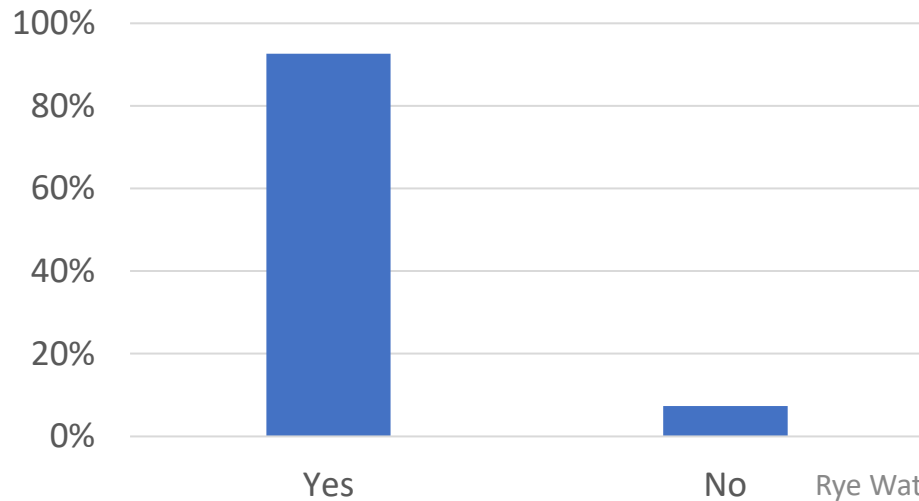
Interacted with RWD Staff Member in Past 3 Years?



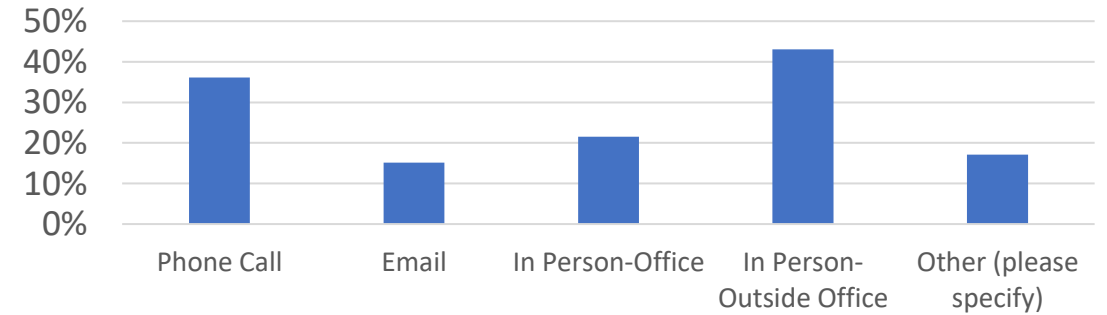
Satisfaction with Response Time



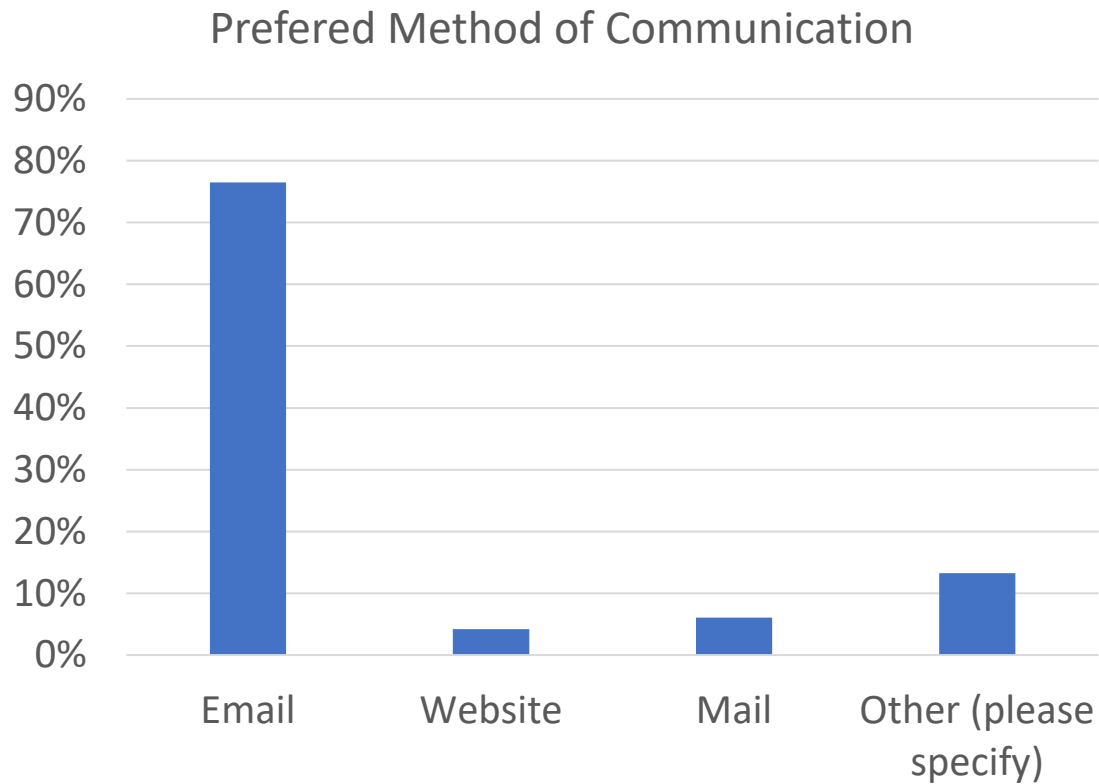
If yes to #4, was staff helpful?



If yes, method of contact?

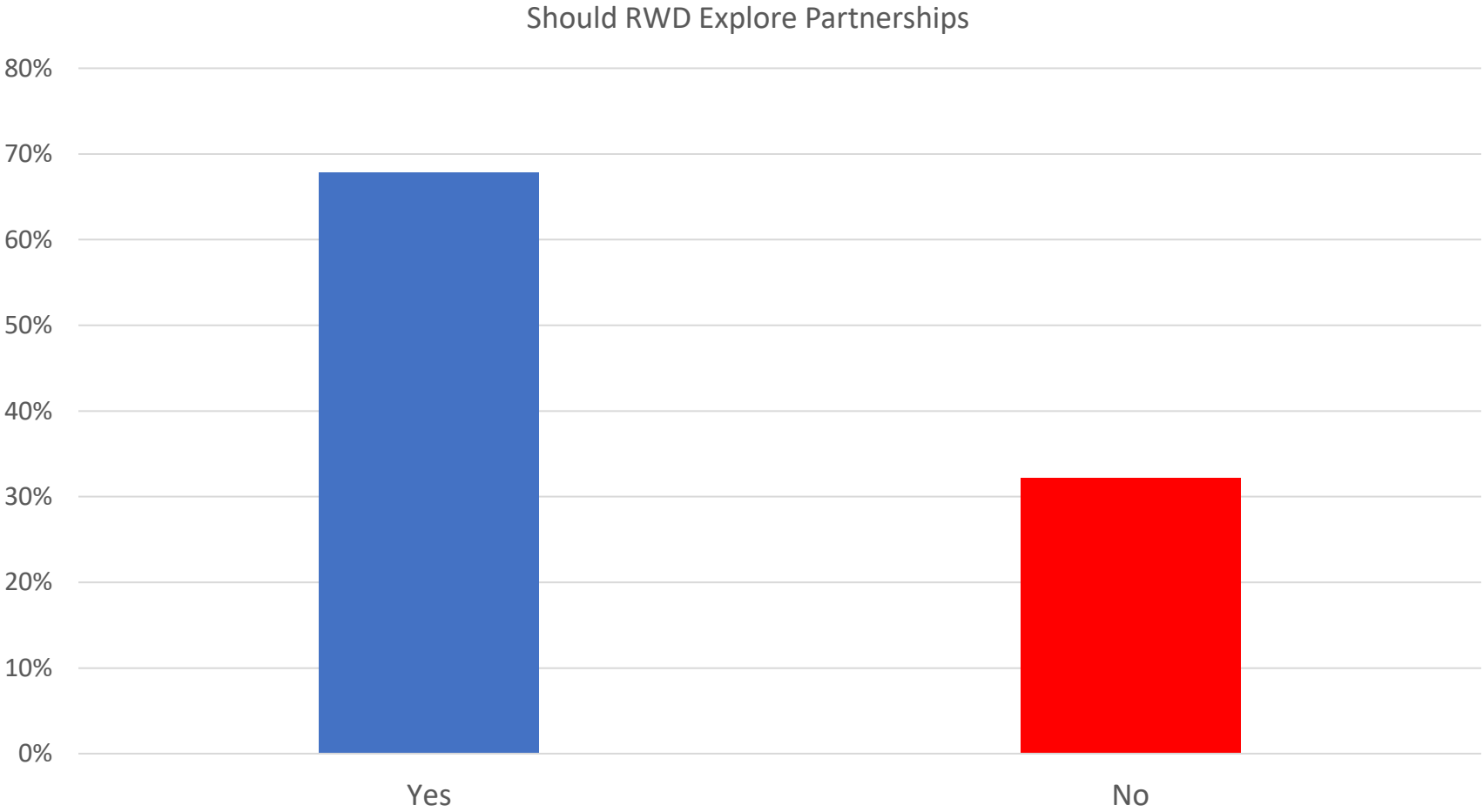


Preferred Method of Communication



Of the 35 people who indicated “other,” most said text, call, or all of the above

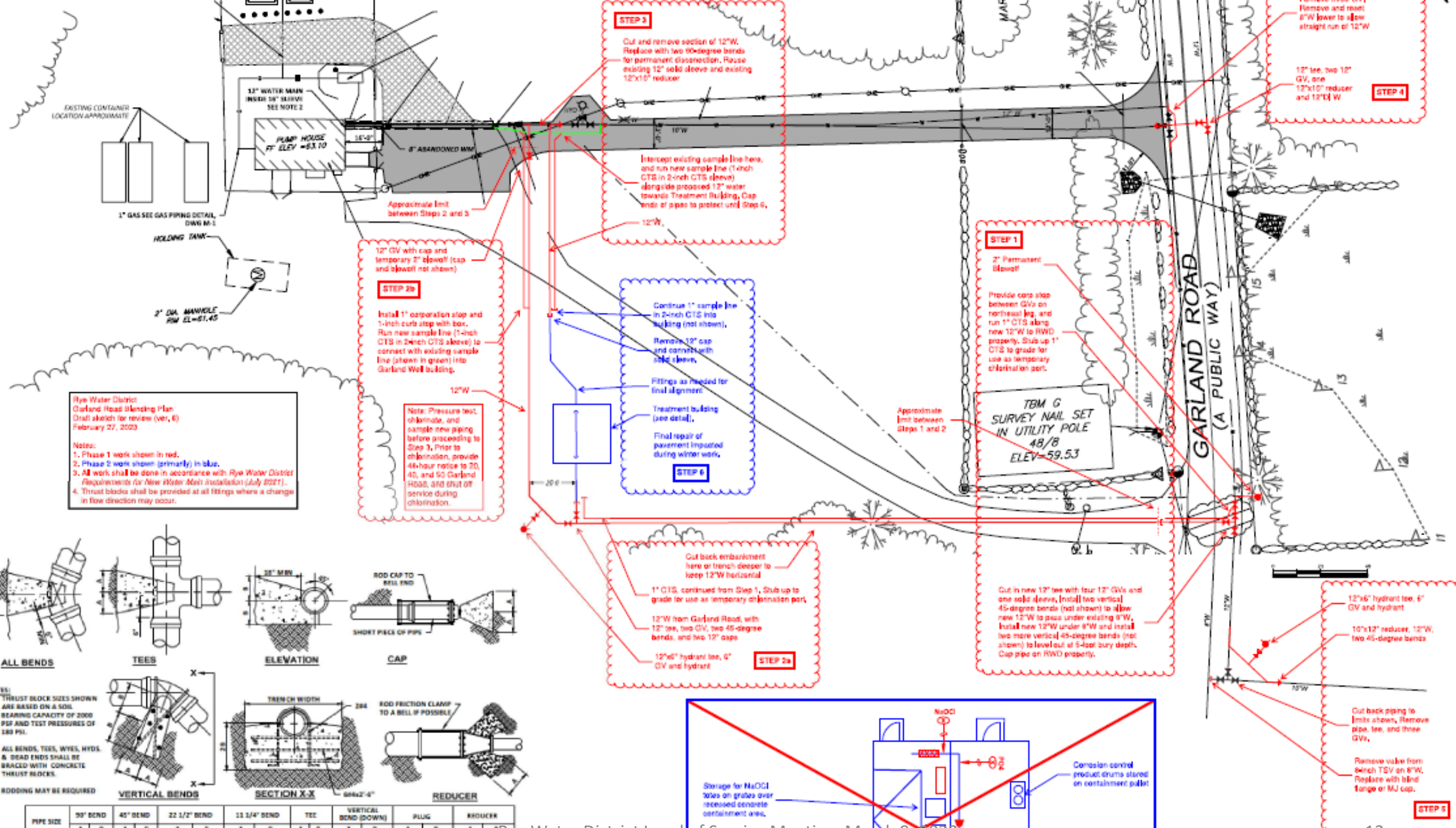
Interest in Exploring Potential Partnerships



Managing the effects of Chlorine

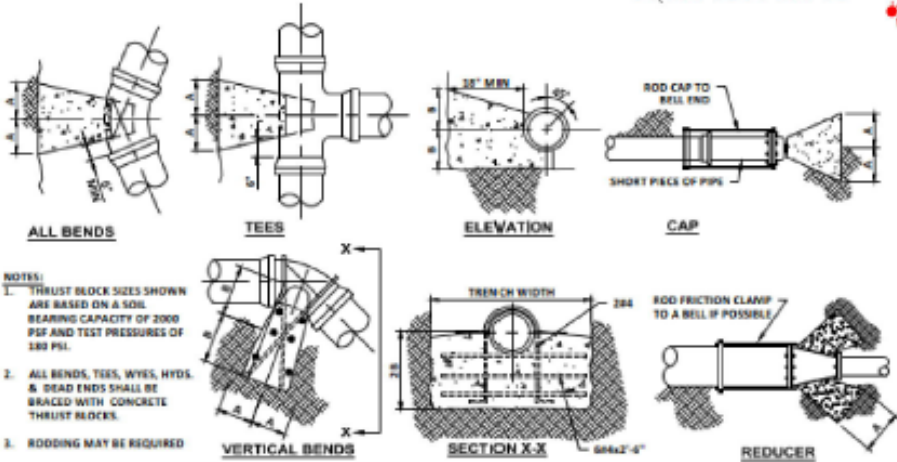
- We will continue chlorinating the water for the foreseeable future.
- The Commissioners and Superintendent are aware of concerns with the smell and taste of the water as a result of chlorination.
- The regular system flushing, scheduled for April and again later this fall, should help
- Additionally, we are actively pursuing strategies to minimize the effects of adding chlorine to our water.
- The following schematic (don't glaze over!) helps explain how we are working to minimize the effects of chlorination...



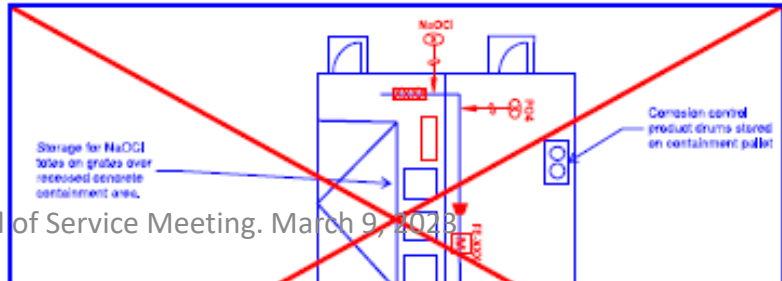


Rye Water District
Garland Road Blending Plan
Draft sketch for review (ver. 6)
February 27, 2023

Notes:
1. Phase 1 work shown in red.
2. Phase 2 work shown (primarily) in blue.
3. All work shall be done in accordance with Rye Water District Requirements for New Water Main Installation (July 2021).
4. Thrust blocks shall be provided at all fittings where a change in flow direction may occur.



PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		VERTICAL BEND (DOWN)		PLUG		REDUCER	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
4"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	14"	21"	12"	12"	12"	12"
6"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	14"	21"	12"	12"	12"	12"



NOTE: Building Detail to be significantly

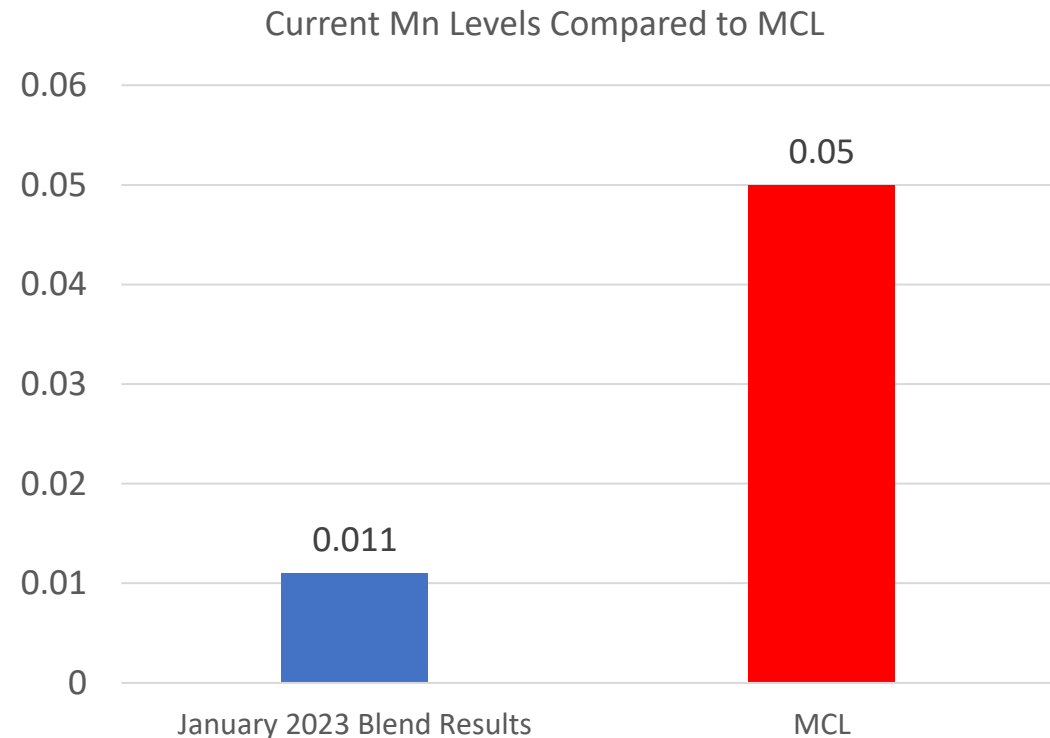
Safety Concerns



- Survey respondents indicated concerns with the safety of the water, largely related to PFAS compounds, but also Manganese.
- On the following slides, we walk through the current acceptable levels of the various compounds as well as the most recent test results in the Rye Water District.
- The RWD adheres to the required **Maximum Contaminant Levels (MCL)** established by the **NH Department of Environmental Services (NH DES)**, which are generally lower than or equal to those levels established by the U.S. Environmental Protection Agency (EPA).

Manganese Levels

- Secondary MCL = 0.05 mg/L (aesthetics only—no health levels)
- January 2023 “blend” results = 0.011
- Note: “Blend” is the water you drink—a combination of all sources



PFAS/PFOA

- There are well-known and justifiable concerns about levels of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
- **Definitions:**
- **Method Detection Limit:** Is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from the analysis of a sample in a given matrix containing the analyte. (40 CFR Appendix B part 136)
- **Method Reporting Limit:** Is defined as the lowest amount of an analyte in a sample that can be quantitatively determined with stated, acceptable precision and accuracy under stated analytical conditions (i.e. the lower limit of quantitation).

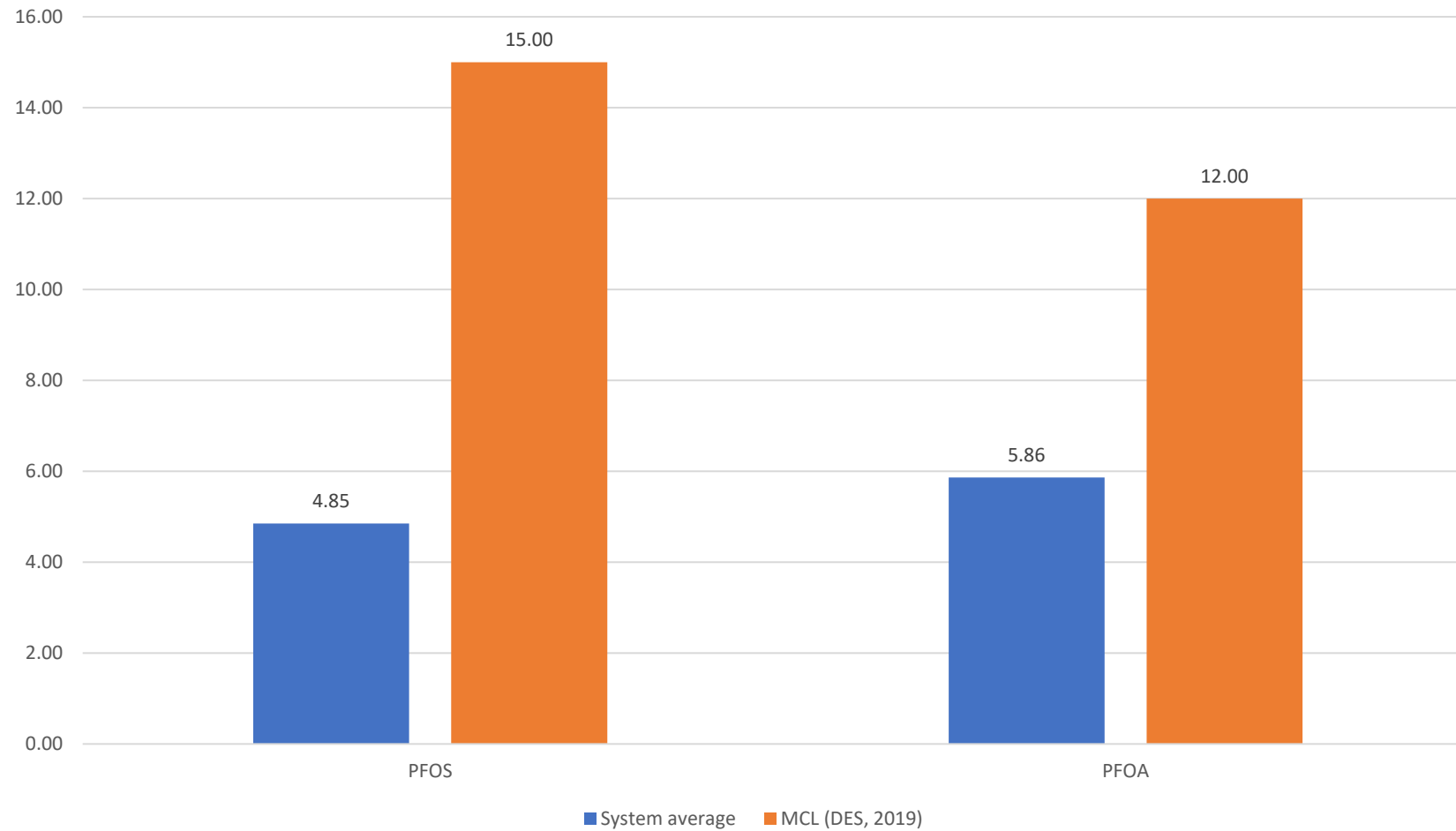
System (blended) Results for Various PFAS Compounds

- The results presented in this table were collected during our quarterly sampling over the last two years. Reported as parts per trillion (ppt or ng/L).
- How do these results compare with MCLs?
 - Focusing only on PFOS and PFOA since the others are below detectable levels

Date Sampled	PFOS	PFOA	PFHxS	PFNA
Jan-21	5.04	6.27	ND*	ND
Apr-21	4.35	5.71	ND	ND
Jul-21	3.91	4.61	ND	ND
Oct-21	4.63	4.70	ND	ND
Feb-22	5.92	7.90	ND	ND
Apr-22	4.02	5.74	ND	ND
Aug-22	5.71	6.71	ND	ND
Nov-22	5.23	5.24	ND	ND

ND = Non-Detectable

RWD System Levels of PFOS & PFOA Compared to DES MCLs



What's Ahead for PFAS?

- Our job is to follow the law and regulations.
- Nevertheless, there is an EPA Health Advisory dated June 15, 2022, with the following recommended limits:
 - PFOS – 0.02 ppt
 - PFOA – 0.004 ppt
- Obviously, we are well above those levels, but we are not sure where the MCLs will land.
- That said, we continue to plan for the design and development of a treatment plant.