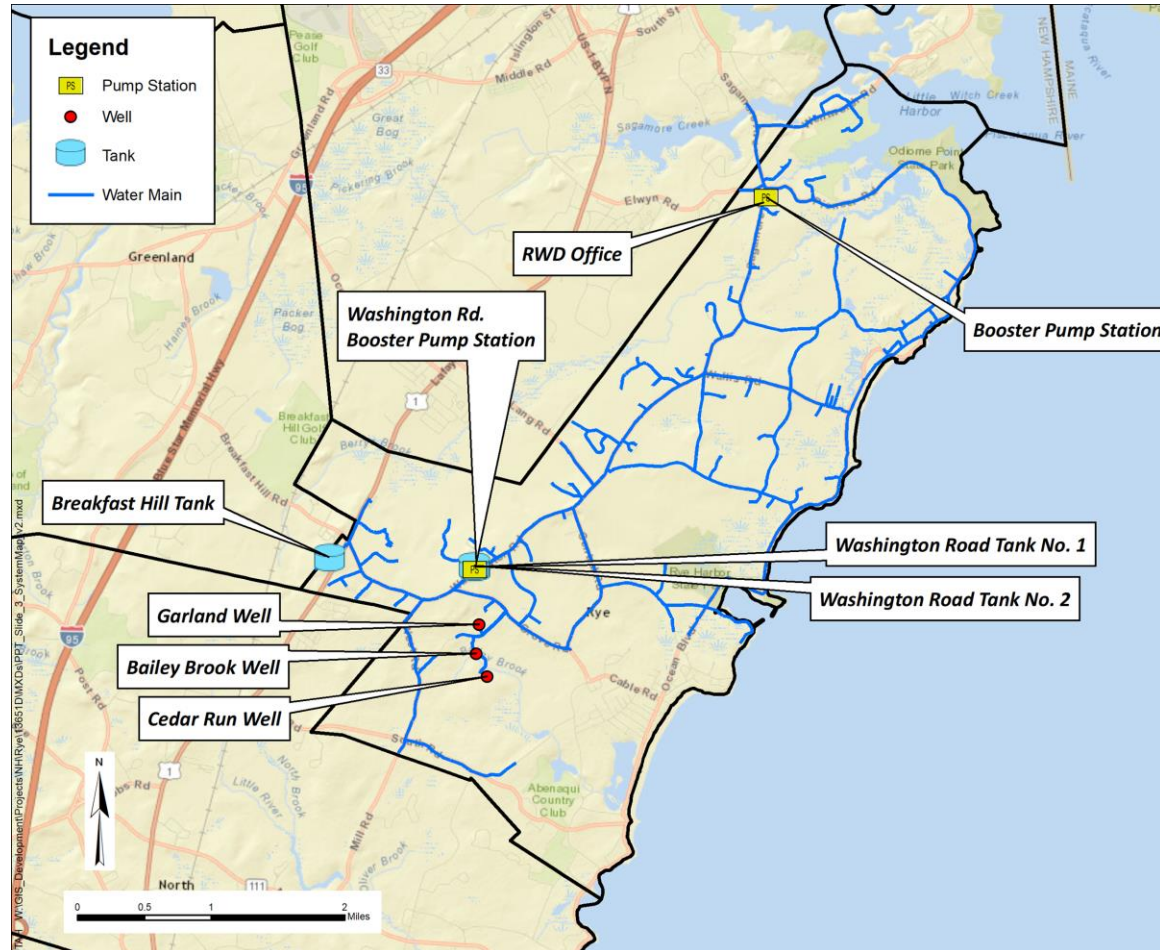


Central Water Treatment Facility for Rye Water District

Chris Berg, PE



Current Water Supply



- Three wells make up the current supply
 - Cedar Run Well
 - Bailey Brook Well
 - Garland Well
- Source water is disinfected with chlorine at the point of entry building near Garland Well

Current Water Supply



- **Garland Well**
 - 500 gpm
 - Low pH 6.6 – KOH added to increase pH
 - PFAS has been consistently detected in Garland Well above the detection limit (>4 ppt)
- **Bailey Brook Well**
 - 330 gpm
 - pH 7.6
 - Fe 0.5 ppm and Mn 0.07 ppm
- **Cedar Run Well**
 - 350 gpm
 - pH 7.2
 - Fe 4.0 ppm
 - Mn 0.32 ppm – complexed with organic carbon
- **Disinfection of all sources at the point-of-entry facility**

Project Goals

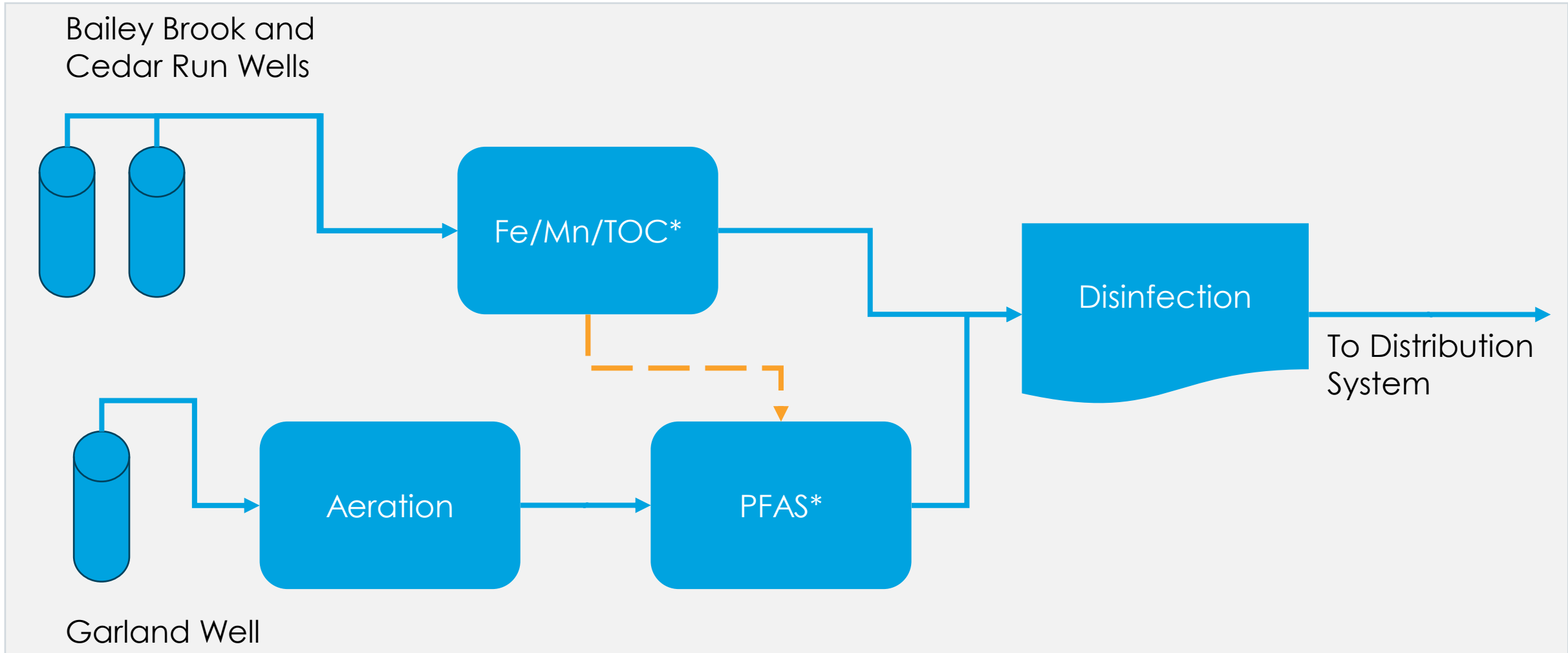
- Treatment facility designed to treat all three wells
- Bailey Brook and Cedar Run
 - Reduce Iron, manganese, and TOC through the filtration process to levels below those proposed by the NHDES Mn Rule and USEPA Secondary MCL
- Garland
 - Adjust pH for corrosion control in line with other sources
- All wells
 - Treat for PFAS to meet proposed PFAS Regulation
 - Provide disinfection to meet EPA Ground Water Rule
- Centralize treatment, improve operational efficiency, and reduce activity in the Garland Well sanitary radius
- Modifications in transmission and distribution system near WTF



Project Area



Proposed Treatment Scheme



*Pilot trials will be conducted in 2024 to confirm the selection of the most appropriate treatment technology.

Proposed Schedule

**Spring
2024**



**Warrant Article
and loan
approval**

**Spring 2024
Fall 2025**



**Piloting,
surveying,
permitting,
and design**

**Fall
2025**



**Solicit bids for
construction
contract**

**April
2026**



**Begin
construction of
water treatment
facility**

**Summer
2028**



**Substantial
completion of
water treatment
facility**

**Spring
2029**



**Final
completion of
construction
contract**

Project Costs & Funding

Contribution	Amount	Est. Principal Forgiveness	Interest Rate
Drinking Water & Groundwater Trust Fund Loan	\$4,950,000	0%	3.5%
Drinking Water State Revolving Fund – Emerging Contaminants	\$1,000,000	100%	--
Drinking Water State Revolving Fund	\$10,000,000	10%	2.8%
Total Estimated Project Cost	\$15,950,000	--	--



- Est. 20 yr Loan Term
- \$13.95M Loan Value
- Debt service starts 2028-29

THANK YOU
