

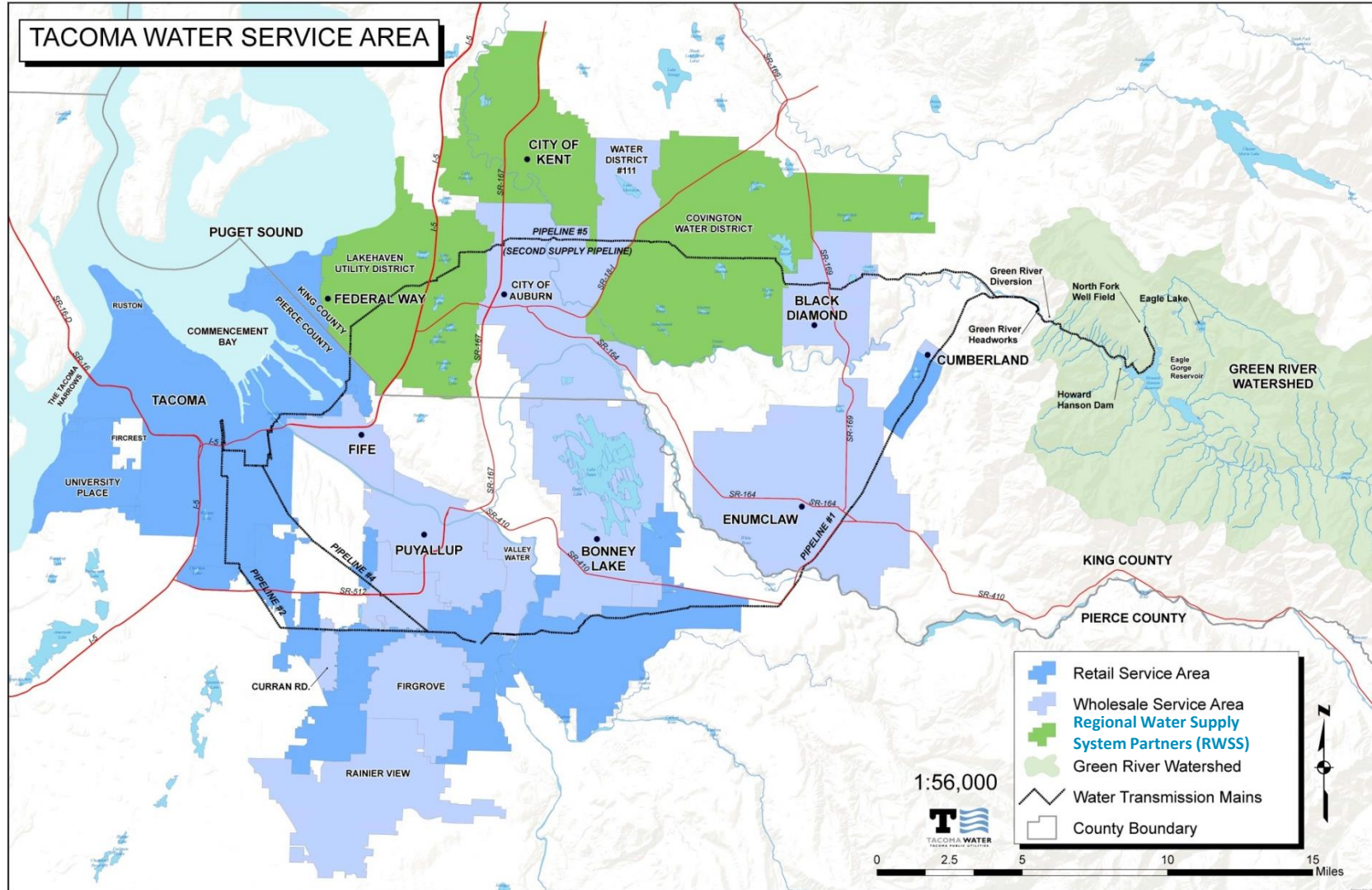
Growing Your Own Tacoma Water's Operator In Training (OIT) Journey

**PNWS-AWWA Section Conference
May 2, 2024**

**Craig Downs P.E. – Source & Treatment Asst Division Manager
Jeff Bolam – Treatment Operations Manager**

TACOMA  WATER
TACOMA PUBLIC UTILITIES

Introductions / About Tacoma Water



2nd Largest Public Water System in WA

Provide Direct Service to:

- 350,000+ Residential Population
- 445,000+ Total Avg Daily Population

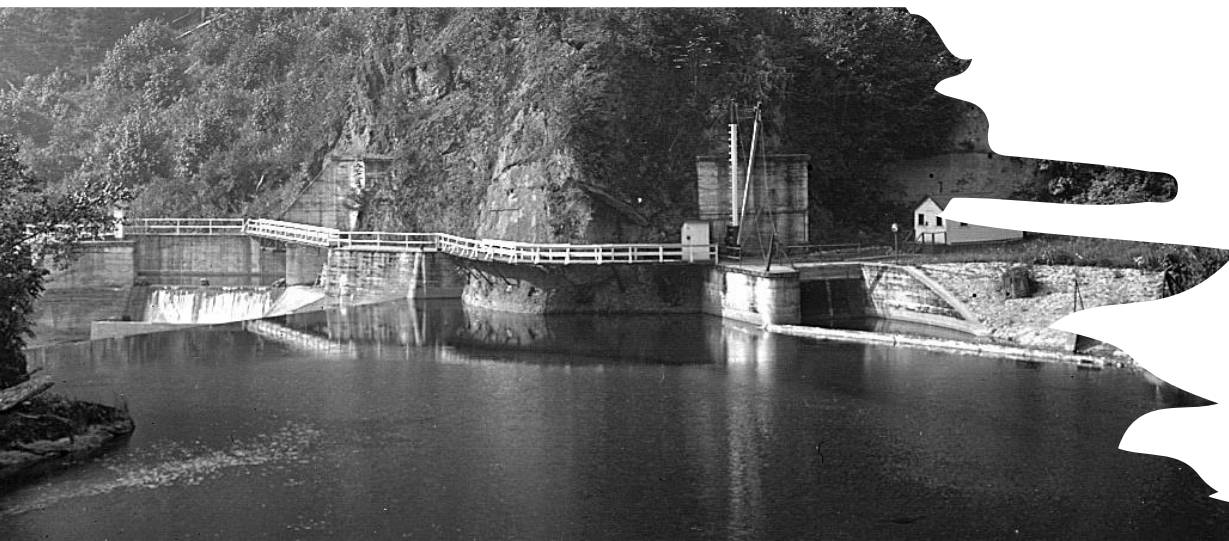
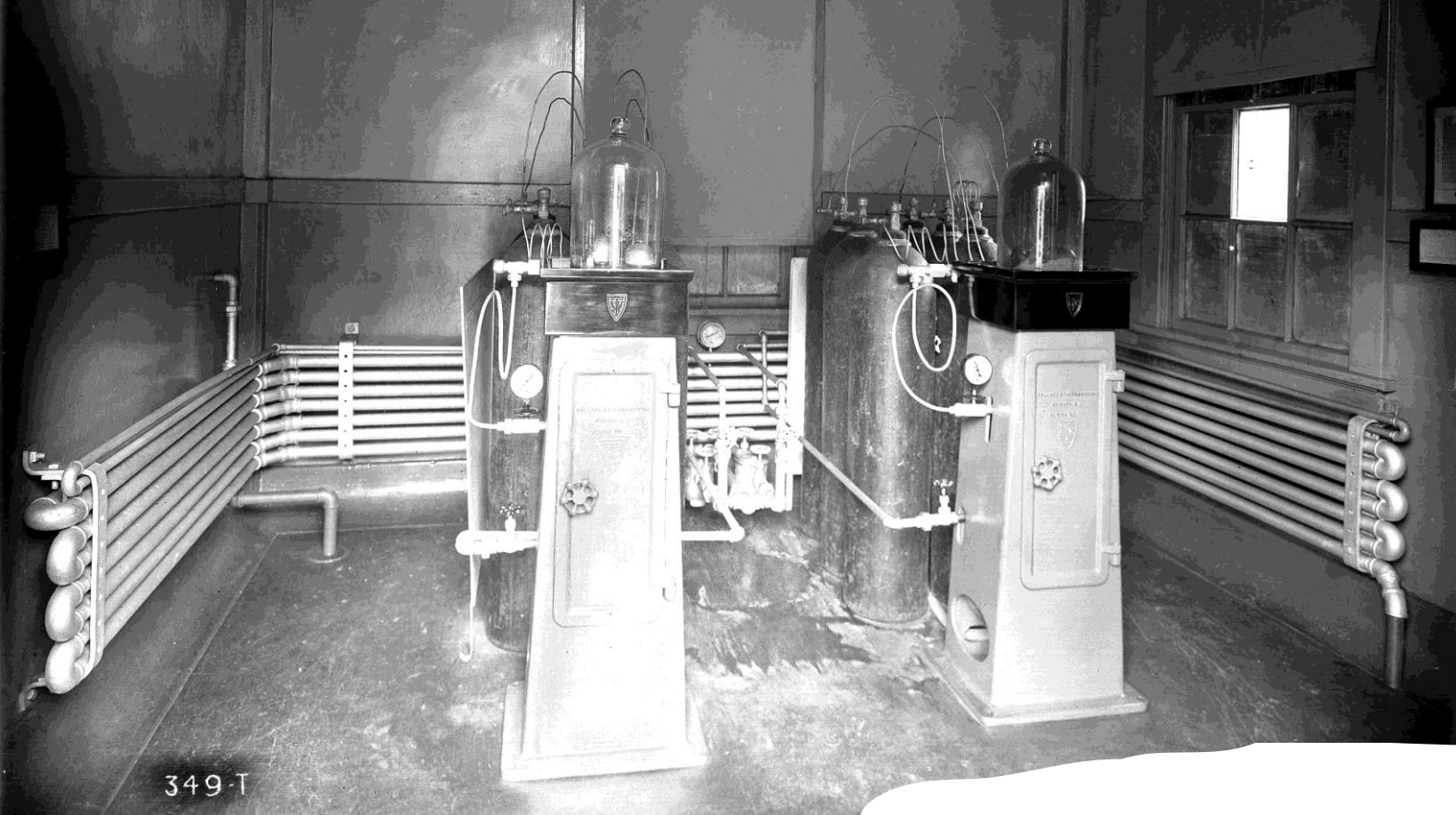
Green River is primary supply (~ 95%)

~ 20 auxiliary groundwater wells

Regional Water Supply System (RWSS) Partners:

- Covington Water District
- City of Kent
- Lakehaven Water & Sewer District

325 Budgeted Employees (2024)



Green River Treatment History

Beginning in 1913 Tacoma was an unfiltered surface water supply with chemical injection treatment

Green River Treatment History (cont)



Water Treatment Plant Operator (WTPO) Certification Requirements



Administered by Washington
Department of Health (DOH)

- WAC 246-292
- Water Distribution Manager (WDM)
vs Water Treatment Plant Operator
(WTPO)

WTPO Certification Requires:

- Combination of Education, Water
System Experience, and Water
Treatment Plant Experience
- Passing a Certification Test
- Continuing Education Units (CEU's)



Water Treatment Plant Classifications

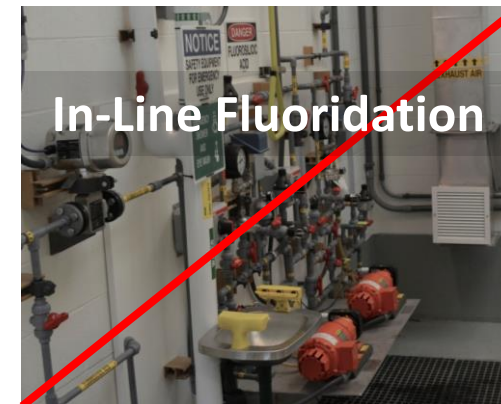
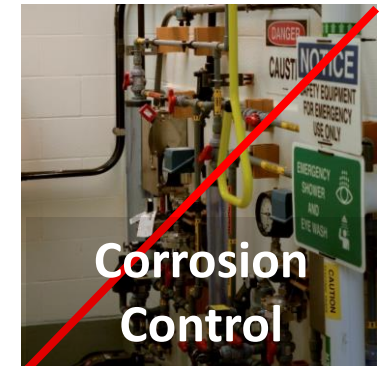
Water Treatment Plants are classified from Class 1 to Class 4 depending on treatment complexity:

The scope of water treatment plant processes include, but are not limited to:

- Water filtration
- Ion exchange
- Electrodialysis
- Reverse osmosis or
- Inorganic contaminant removal

The scope of a water treatment plant does not include unit processes installed for:

- In-line fluoridation
- In-line chlorination or
- Chemical addition to inhibit corrosion



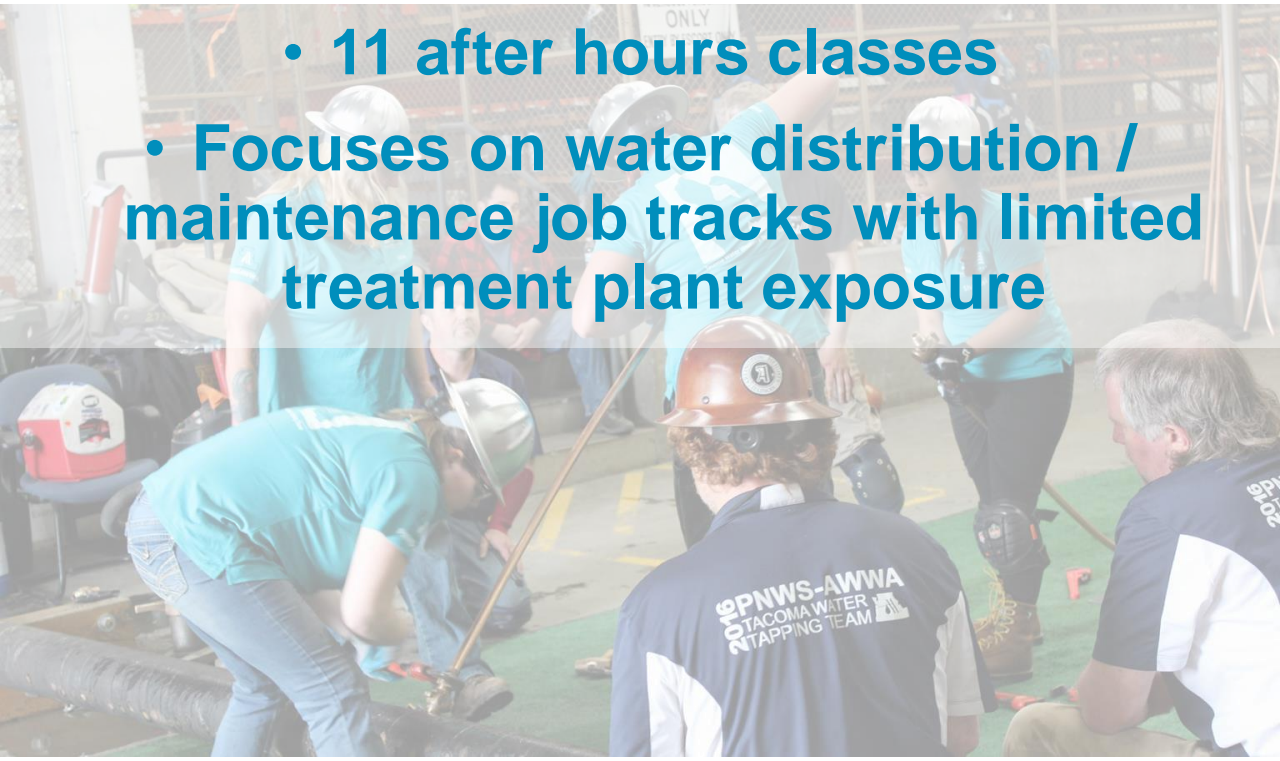
= NOT a Water Treatment Plant

“Treatment Plant Experience” Challenge

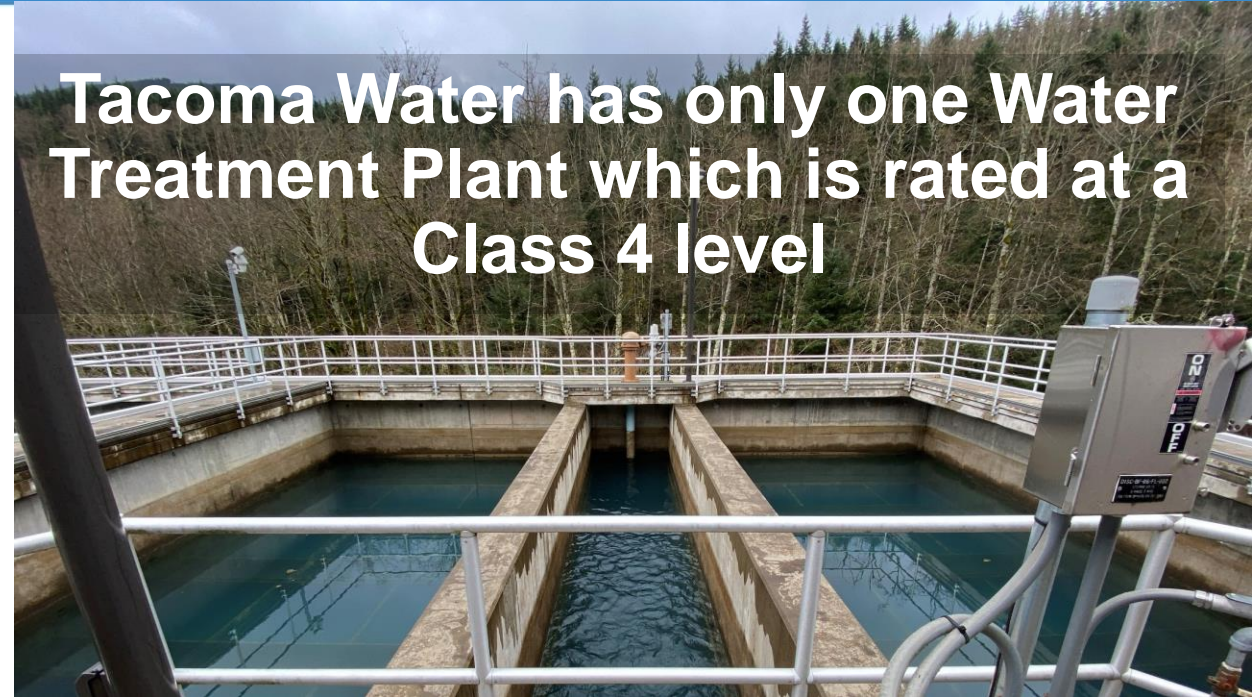


Tacoma Water has a long-standing WA state recognized apprenticeship program (JATC) for newly hired Water Utility Workers

- 2 years – approximately 3,000 hours
- 11 after hours classes
- Focuses on water distribution / maintenance job tracks with limited treatment plant exposure



Tacoma Water has only one Water Treatment Plant which is rated at a Class 4 level



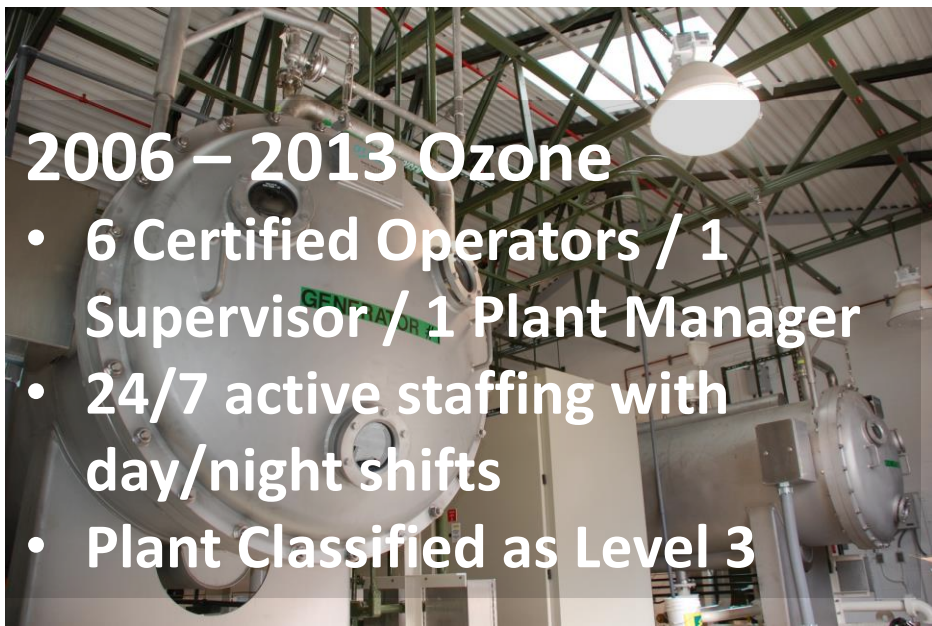
- Requires a minimum of WTPO Level 4 certification for responsible charge and WTPO Level 3 for other shift / duty operators
- Remotely located approximately 1 hour drive from Tacoma

Green River Operator History



Until 2006

- 2 Certified Operators / 1 Supervisor lived on site
- No 24/7 active staffing
- 1 on site at all times to respond to alarms



2006 – 2013 Ozone

- 6 Certified Operators / 1 Supervisor / 1 Plant Manager
- 24/7 active staffing with day/night shifts
- Plant Classified as Level 3

2013 – 2015 Green River Filtration Facility (GRFF)

- Expanded from 6 to 8 Certified Operators
- Plant reclassified as Level 4



First Operator in Training (OIT) Program

- 2-year duration with permanent WTPO position upon completion (1 completed successfully)

10 current WTPO certified operations staff at plant
9 obtained WTPO certification outside Tacoma Water

Rotating OIT Program Vision

Tacoma Water's 5 Year Strategic Plan Workforce Development Initiative

Seeks to “create a defined system that ensures our employees...have supported access to career development opportunities.”



- **Opportunity to train existing employees and provide expanded career pathways**
- **Provide sufficient Water Treatment Plant “Operating Experience” to allow candidates to obtain necessary WTPO certification to compete for future permanent openings**
- **Rotation assignment with no more than 2 OIT candidates at one time with offset start times to better facilitate onboarding**
- **Open to Graduated Apprentices**

The Journey...first steps



Labor Considerations

- Negotiated a Letter of Agreement (LOA) with union
- Leave of absence from permanent position (continue to accrue seniority)
- Pay rate is 90% of WTPO
- Future WTPO openings will be filled using internal citywide Promotional List once there are two successful OIT graduates on the list

LETTER OF AGREEMENT
Between
IBEW, Local 483
and
City of Tacoma
Water Division, Department of Public Utilities

Effective Date: June 29, 2022

Subject: Water Operator in Training

The City of Tacoma, Tacoma Water and IBEW Local 483 Water Unit, hereby enter into this Letter of Agreement (LOA) which shall be attached to the collective bargaining agreement and incorporated as though fully set forth.

Background

Tacoma Water wishes to provide the opportunity for qualified, skilled, and interested employees to receive the necessary training and development, in combination with their existing education and training, to become certified at the Water Treatment Plant

HR Considerations

- Job classification: Added an OIT pay range to the existing Water Treatment Plant Operator job class
- Selection Process: Used existing “Interest List” process for qualified candidates, followed by panel interviews
- Will need waiver from Tacoma Civil Service Board to allow for 18-month “temporary” employment duration

Regulatory Considerations

- Worked with DOH to clarify how this program will work within the certified operator requirements of WAC 246-292

Concept

- **Develop an internal pool to more quickly fill open operator positions**
- **Lower barriers so our existing staff can compete for operator positions**
- **Provide water treatment plant operating experience**
- **Employee Investment**
- **Improve knowledge base of Tacoma Water staff**
- **Certification**



Create Buy-In

- **Creating a succession plan for treatment plant operators**
- **Tacoma Water has Partners that share a portion of our costs for Green River treatment**
- **Operators are represented by IBEW Local 483**
- **Operators are well paid**
- **Certification is industry wide**
- **We have the largest filter plant in the PNW**



Building A Program

GRFF Operator in Training - Plant Specific Training

0% COMPLETE

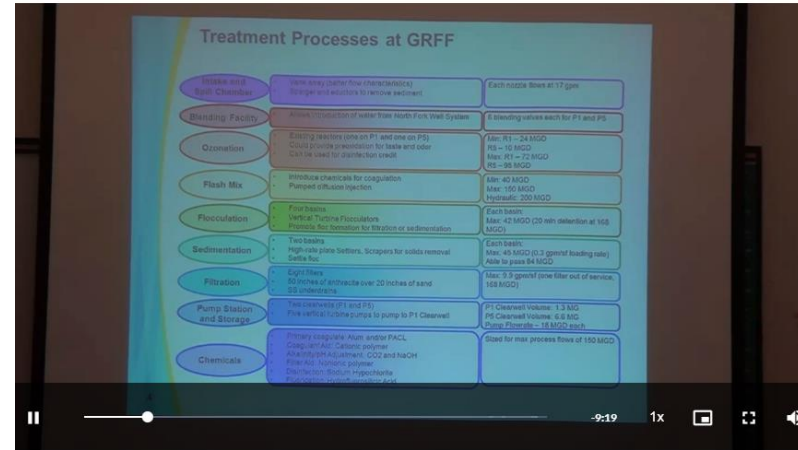
GRFF Process Overview: 13 Videos (Total Time - 1:16:59)

LESSON 1 OF 12

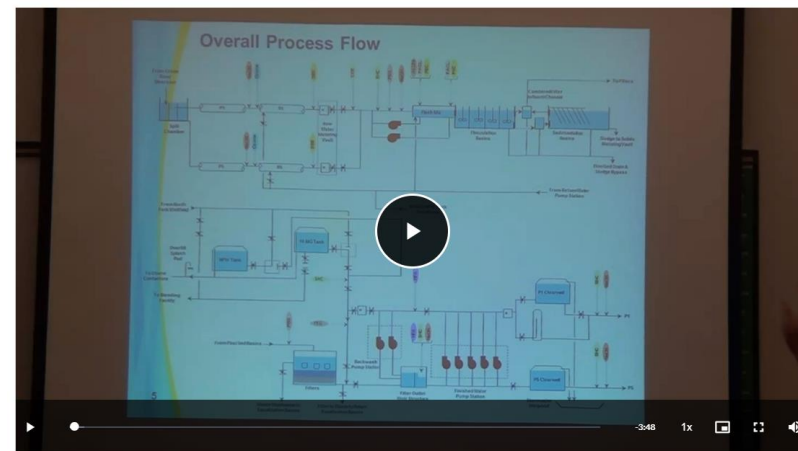
Learning Objectives

After completing this module you will be able to:

1. Describe the flow of process water through the Green River Filtration Facility
2. List the treatment processes that occur in the GRFF
3. Explain the differences in operation between conventional and direct filtration
4. Describe the removal of solids from the treatment process at GRFF in the solids handling system
5. Describe the typical flow of solids through solids handling facilities at GRFF
6. Describe the handling of solids during a high turbidity event and following the event.
7. Explain the potential for reduction of solids handling through process water source adjustments
8. Explain what overflow accommodations are at the GRFF.



Process Water Plant Overview (10:47)



Overall Process Flow (3:50)

- Set objectives
- Engage with Tacoma Water Workforce Development team
- Research available training
- Gather and organize GRFF training information
- Set Curriculum
- IBEW Local 483 contract language
- Brief Plant Operators



OIT Workbook - GRFF Process Overview.pdf
12.3 MB



Figures - GRFF Process Overview.pdf
809.6 KB



Generate Internal Interest

- What do Water Treatment Plant Operators do?
- What is an OIT?
- What is Certification?
- Why is Tacoma doing this?
- What is the application process?
- What is the selection process?
- What is an interest statement?
- How do I demonstrate my experience?
- Can I apply again?
- Is this job like Water Control?
- What is the pay rate?
- Can I expect to get an Operator job?
- How many Operators do we have?
- What about my seniority in my current position?
- How long will the assignment last?
- Can I get overtime or set ups?
- What if I don't like it?
- Can I lose my job if I wash out?
- What will my commute be?
- Is there a reporting HQ change?
- Does this prevent me from pursuing other job offers?
- What happens after I complete?
- If I am not currently working in a classification represented by Local 483?
- Is there a Classification Specification for the OIT position?
- What if I am already certified?
- What is the Shift?
- How much will the certification test and training cost?
- What is the anticipated timeline for this program starting? What are the next steps?



- **Harder than you think**
- **Explain the work**
- **Amend the IBEW Local 483 Contract**
- **Use department newsletters**
- **Information sessions including remote work sites**
- **Word of mouth**
- **Answer questions**

What Are The Costs?

- Full time employees are expensive
- Additional tools, desk space, computers etc.
- Addition staff equipment
- Training Materials
- Labor time for training
- Operator/Supervisor time for training
- Pulling staff from field crews



Lessons Learned

Engage with union early on...and definitely before starting any discussions with represented staff

Involving impacted staff

- **WTPO's that will help in training the OIT's**
- **Supervisors losing staff to the OIT program**

When starting up new facilities, develop training materials that can be used in the future (videos, presentations, etc)

Develop an evaluation / feedback process both for program and the OIT employee

Realistically budget for the program (these are “extra” positions)

Acknowledgements



Aaron Whitfeldt – Instructional Designer (co-author)

Jennifer Airey (co-author)

Tacoma Water Workforce Development Staff

Tacoma Water Green River Filtration Facility Staff

IBEW Local 483 Water Unit

Regional Water Supply System (RWSS) Partners:

- **Covington Water District**
- **City of Kent**
- **Lakehaven Water & Sewer District**

Washington Department of Health

Dan McCormick – Tacoma Water’s 1st OIT (2013)

Nate Lawson – Tacoma Water’s Current OIT Candidate

Questions?

For More Information

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TACOMA  **WATER**
TACOMA PUBLIC UTILITIES