

Cities of Hillsboro,
Forest Grove, Beaverton,
and Tualatin Valley
Water District



Water Industry Workforce Development Plan

2022 PNWS-AWWA Section Conference
April 28 Tacoma, WA

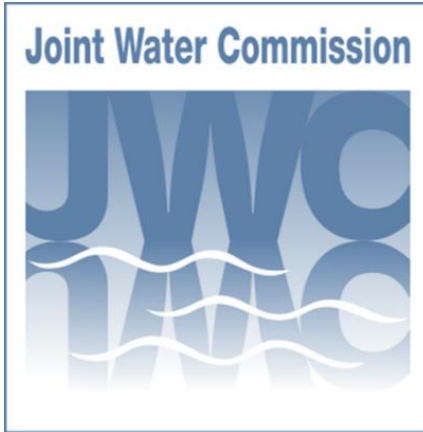
Chris Wilson: WWSS/JWC Senior Program Manager
Kimberly Gupta: PWB Bull Run Supply & Treatment Manager



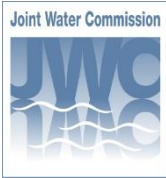
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About us:



Willamette Water Supply
Our Reliable Water



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Joint Water Commission

- The Joint Water Commission (JWC) is a partnership agency formed in 1976 between the cities of Beaverton, Forest Grove, Hillsboro and the Tualatin Valley Water District (TVWD). The City of Hillsboro is the managing agency for the JWC and its employees.



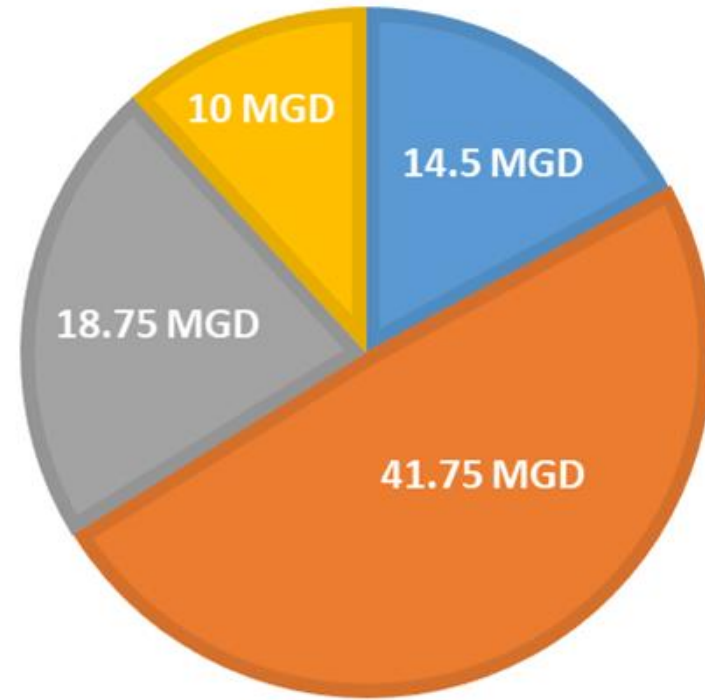


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JWC WTP Partner Ownership:

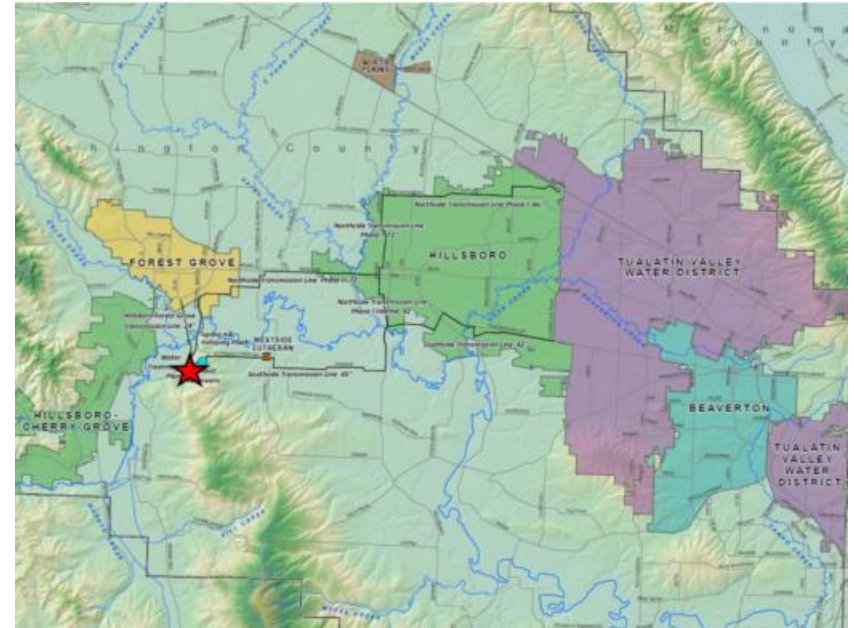
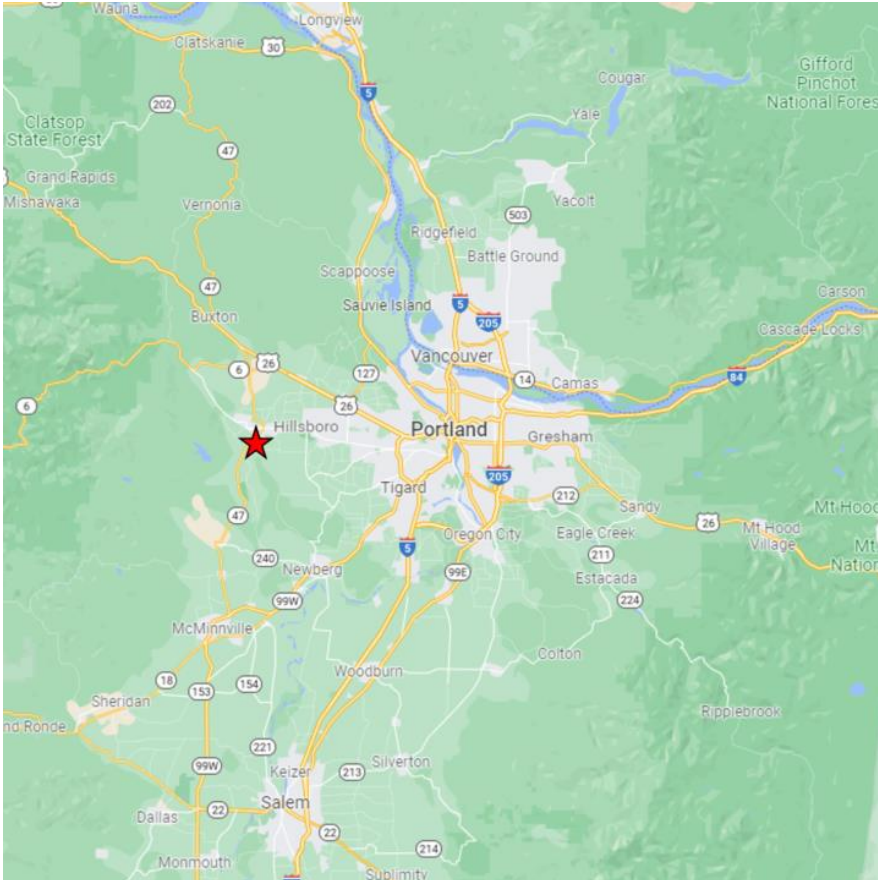
- Initial treated water capacity was 20 MGD in 1976
- Expanded to 30 MGD in 1986
- Expanded to 40 MGD in 1990
- Expanded to 70 MGD in 1996
- Expanded to 75 MGD in 2007
- Expanded to 85 MGD in 2019



■ TVWD ■ Hillsboro ■ Beaverton ■ Forest Grove



Location



- Located in Forest Grove, Oregon
- Serves about 430,000 customers in Washington County.



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Joint Water Commission



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Willamette Water Supply Program

- The Willamette Water Supply Program (WWSP) is a partnership agency formed in 2019 between the Tualatin Valley Water District (TVWD) and the cities of Hillsboro and Beaverton. TVWD is the Willamette Water Supply System (WWSS) Managing Agency while the City Of Hillsboro will manage and operate the Water Treatment Plant.

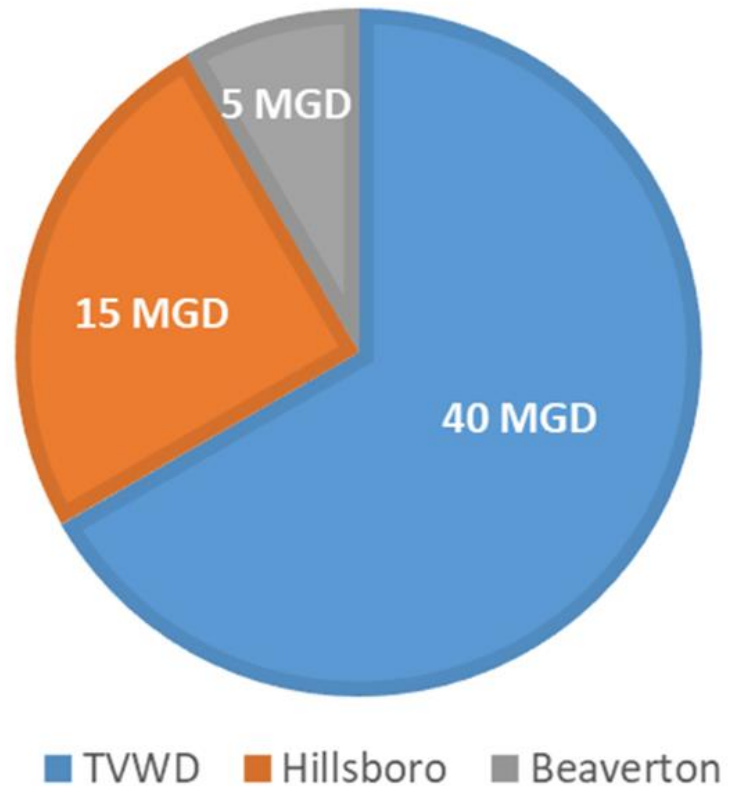


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WWSS WTP Partner Ownership:

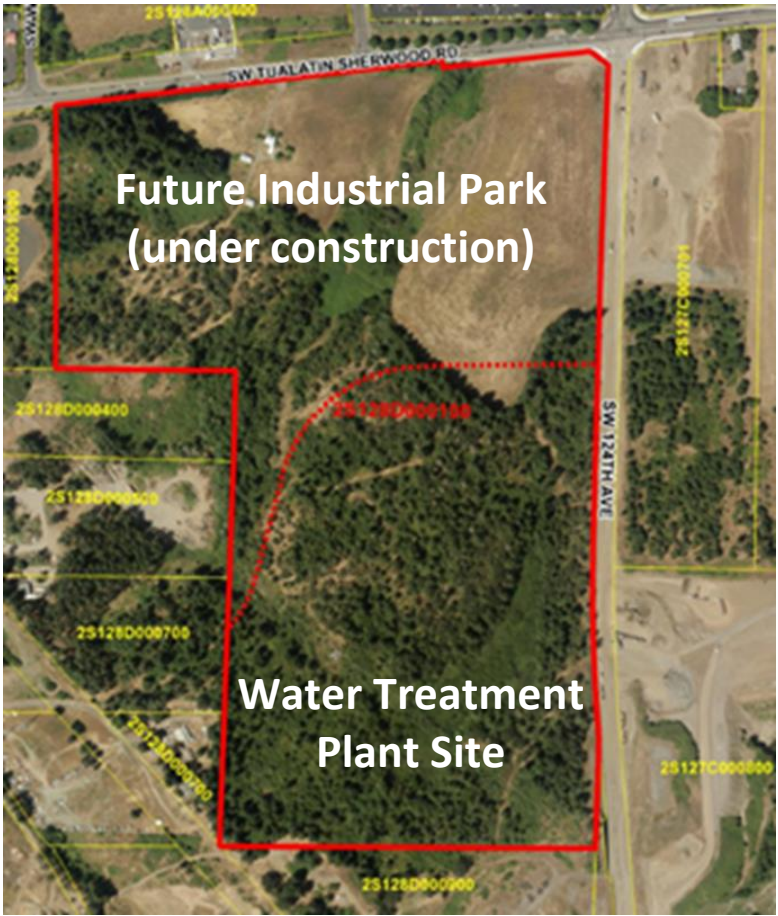
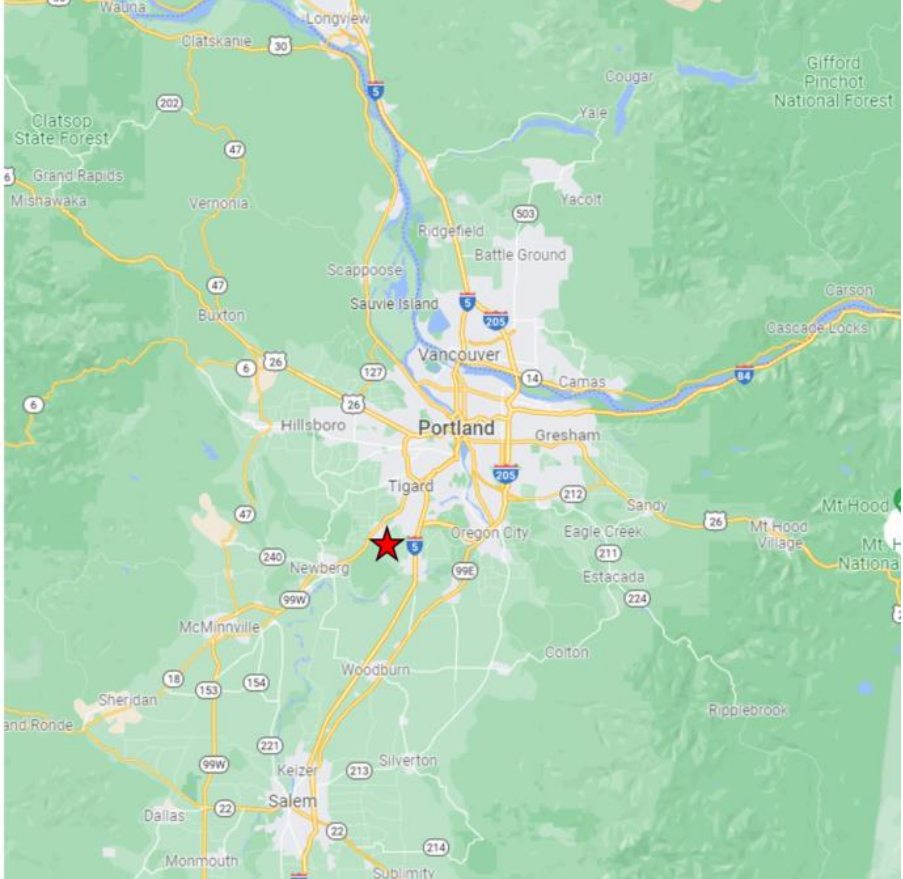
- Initial treated water capacity is 60 MGD
- Accommodates re-rate to 72 MGD (limited improvements required)
- Ultimate (build-out) capacity is 120 MGD



Willamette Water Supply

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Location



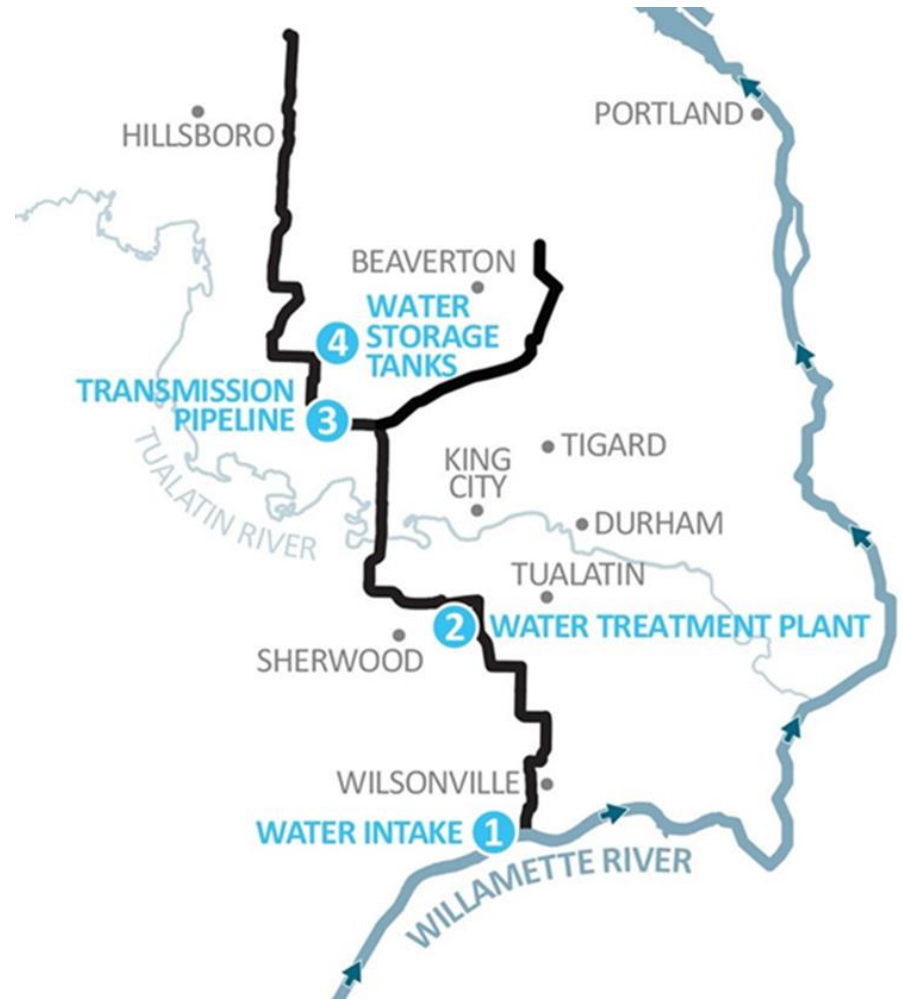
- Located in Sherwood, Oregon

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Project Pieces:

- 1) Improved Raw Water Pump Station (shared with WRWTP)
- 2) New state-of-the-art Water Treatment Plant
- 3) More than 30 miles of earthquake resilient water pipe
- 4) 15 million gallons of secure water storage

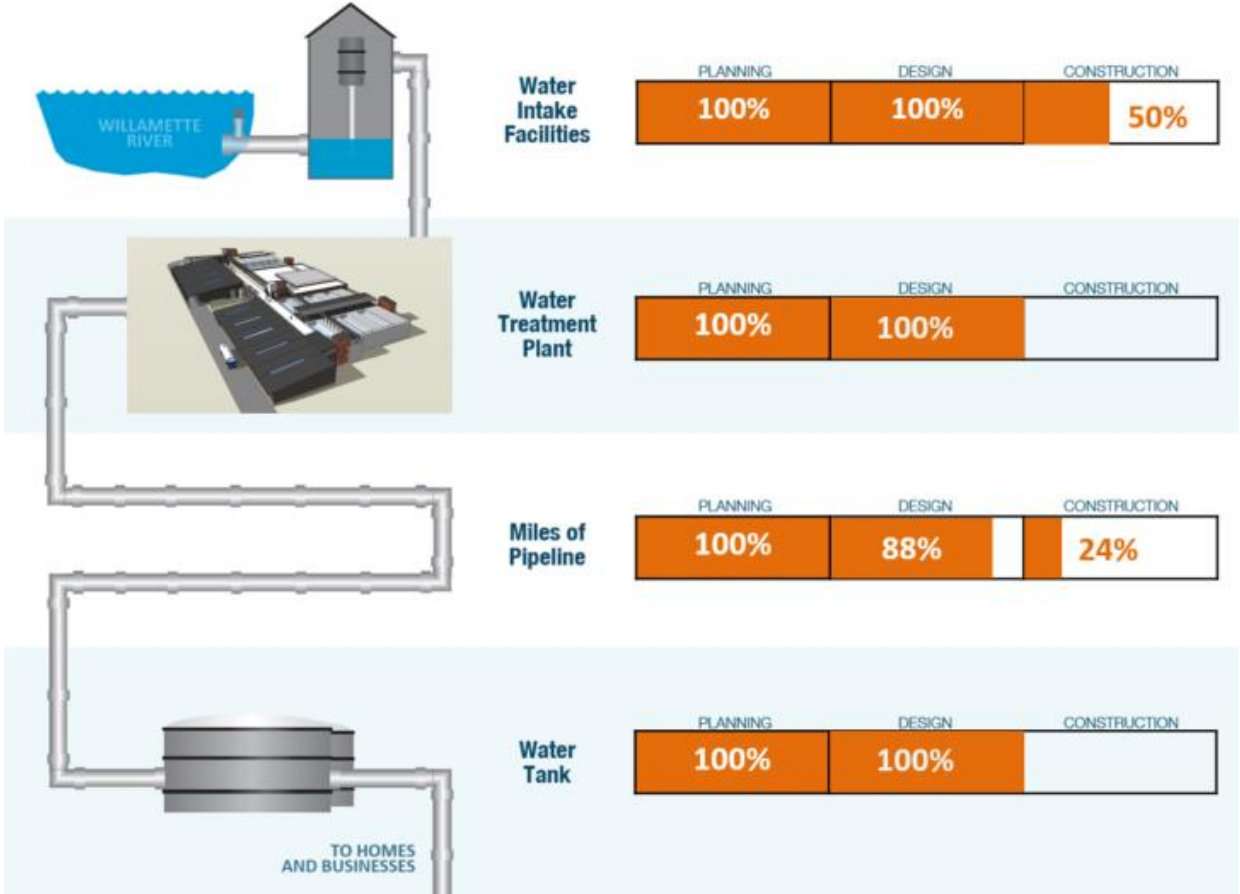


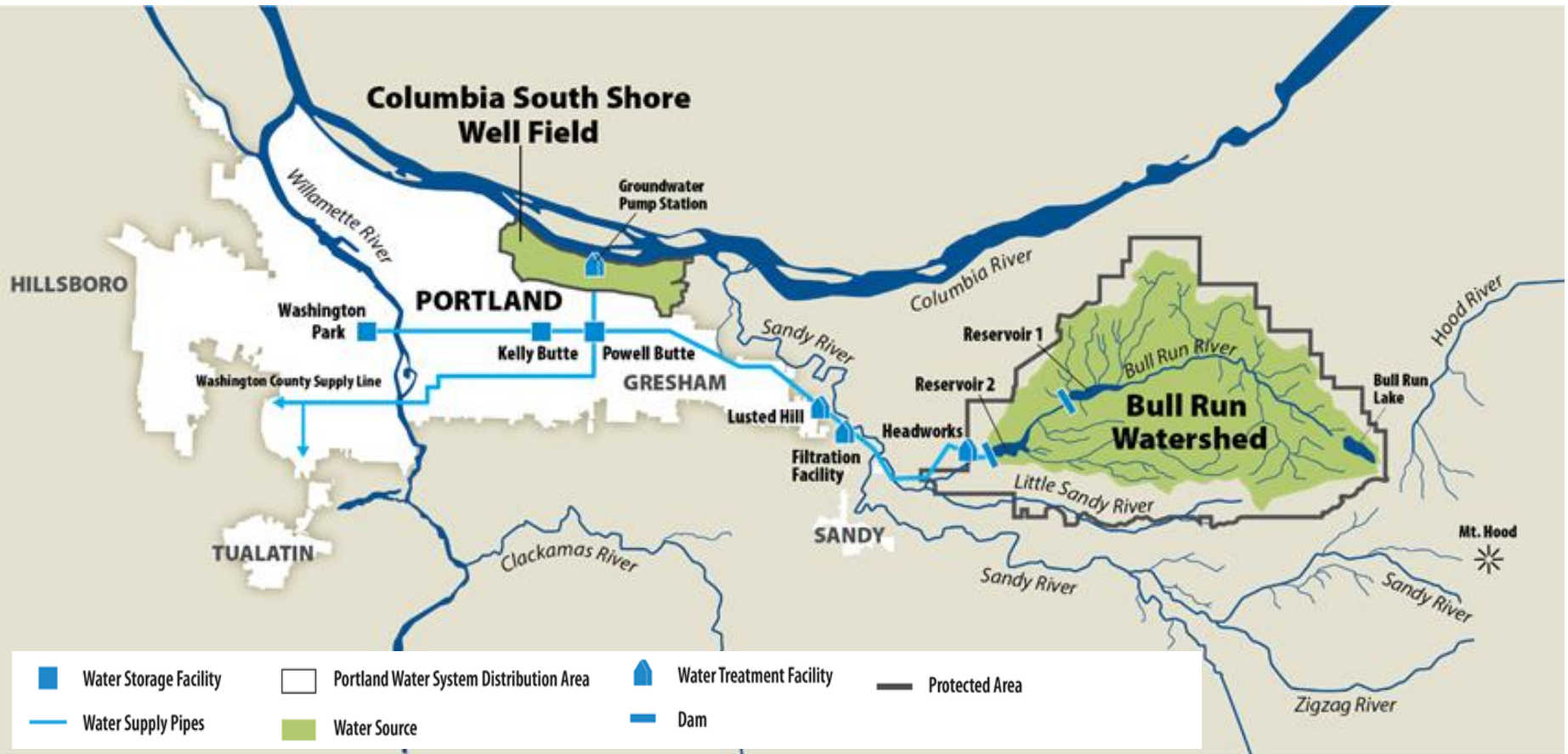
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Progress Update:

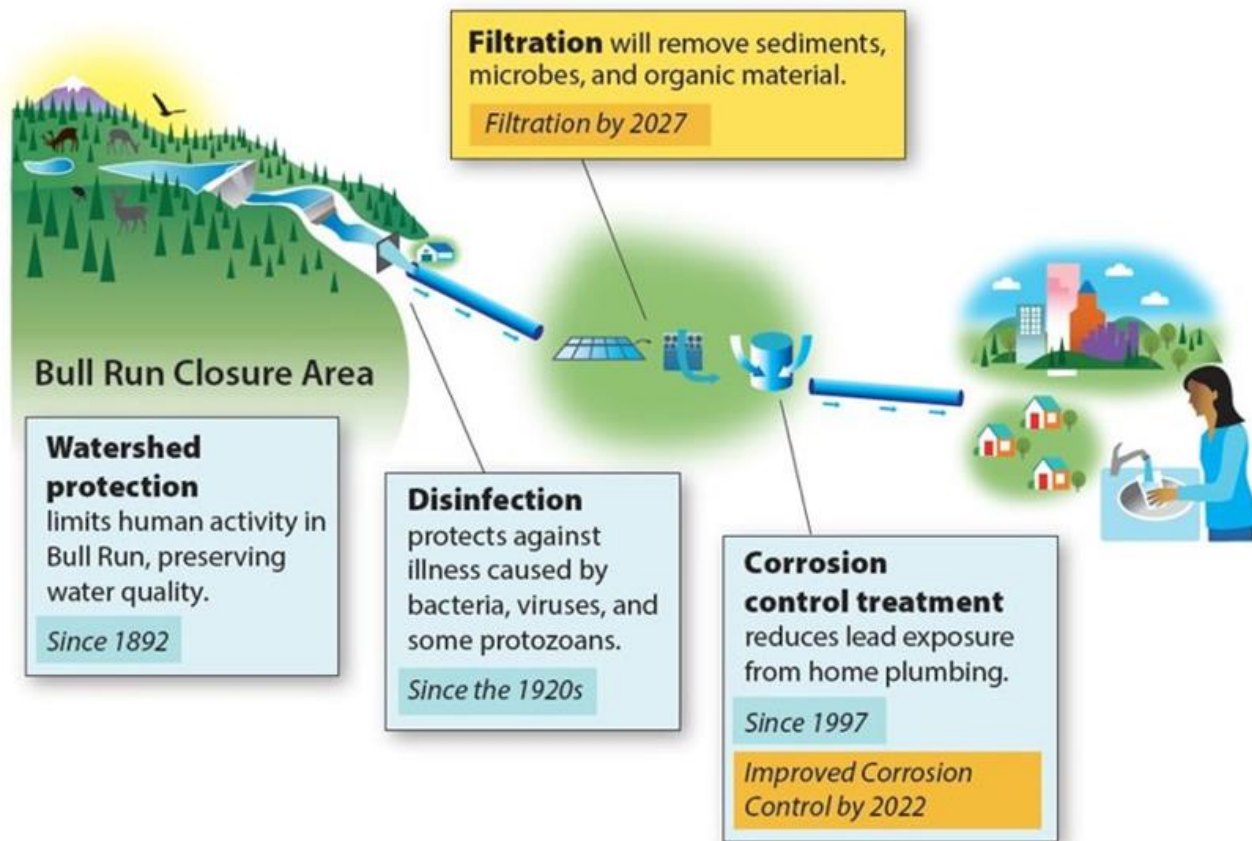
- We are on schedule to meet our 2026 completion date





- Serves almost 1 million people
- Serves the City of Portland and 19 wholesale customers
- Uses 100 million gallons of water on an average day

Improvements
to our system
are needed to
meet national
drinking water
standards



On track to deliver filtered Bull Run water to customers beginning September 2027



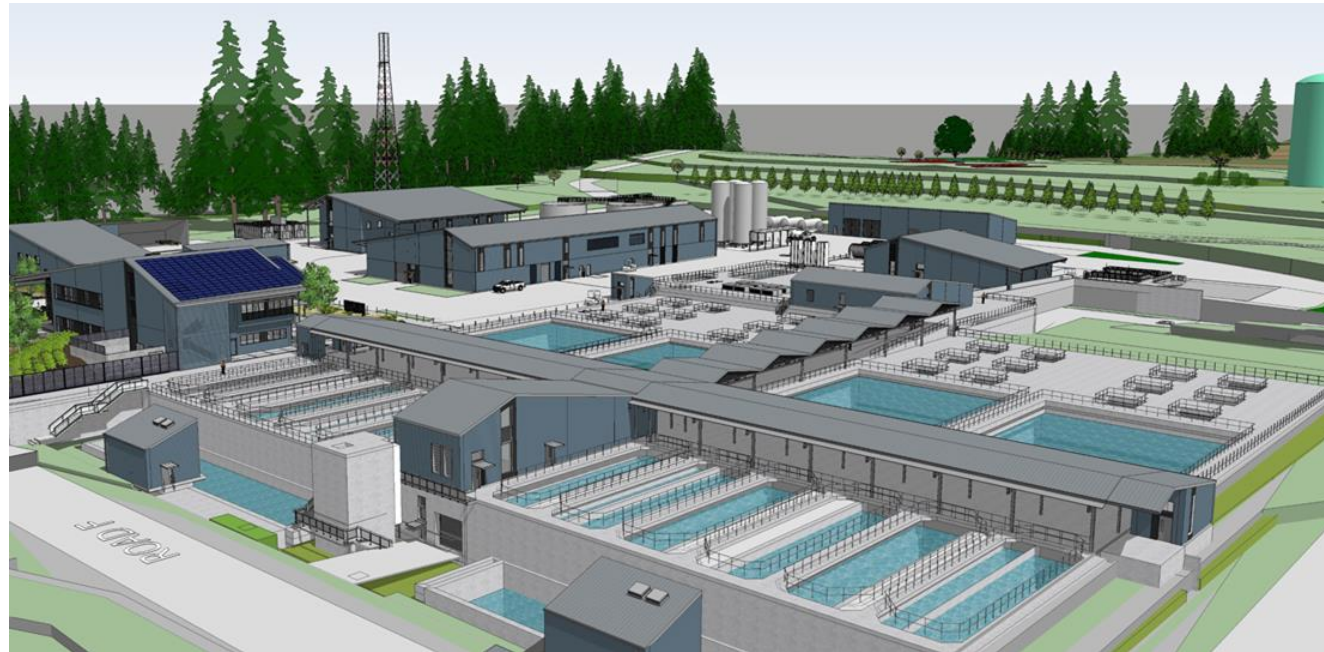
**Planning
Completed
2018-2020**



**Design
Underway
2020-2022**



**Construction
Expected
2023-2027**





Workforce Development

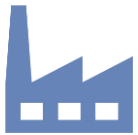
Goal:

- **The Water Industry is experiencing a shortage in Treatment Plant & Distribution Operators.**
- **With several large new treatment plants coming online in the coming years, there is a need to create a regional workforce pipeline to encourage, educate and train future water industry personnel.**





Challenges



- Increase in water utility workforce need



- Limited number of Water & Environmental Technology Programs



- Lack of awareness of water utility career opportunities



- Shortage of existing qualified and experienced operators



- Dwindling workforce pipeline due to retirements



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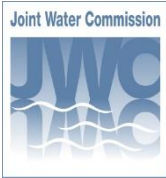
Partnership

A group of regional water utility providers, Carollo Engineers, and Clackamas Community College are working together to expand the public awareness of opportunities in the drinking water utility sector and create an internship program that lays out a guided pathway for individuals to successfully join the water industry workforce.



A place where families and businesses thrive.



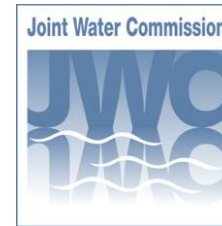


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Challenges: Growing Industry

- **Joint Water Commission WTP:**
Expanding staff needs combined with forthcoming staff retirements.
- **Willamette Water Supply System WTP:** set to come online in 2026 with approximately 20-25 new staffing positions
- **Portland Water Bureau WTP:** set to come online in 2027 with similar amount of staffing positions



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Potential Future WWSS Jobs:

WWSS Staffing Phasing	Total Positions Required	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
<u>WTP/RWF/WIF Operations - COH</u>	19					
WTP Manager (already filled)	0					
WTP Coordinator - Operations Lead	1	1				
Lead WTP Operators	4	2	2			
Water Plant Operators	4		2	2		
Electrician	1			1		
Lab Coordinator	1			1		
WTP Coordinator - Data/Water Quality	1			1		
Project Specialist	2			1	1	
WTP Coordinator - Maintenance Lead	1			1		
Maintenance Operator	1			1		
Senior Facilities Maintenance Tech	1			1		
Maintenance Coordinator	1				1	
Full Time Operator in Training	1				1	
<u>TVWD Transmission and Storage</u>	5					
Transmission Operator Lead	1	1				
Transmission Operator	4		2	2		
<u>TVWD Support Services</u>	11					
Facilities Maintenance	1			1		
Systems Analyst	1		1			
Engineer	1			1		
Water Resource Specialist	2		1		1	
IT Specialist	6		1	2	1	2
WWSS Staffing Total	35	4	9	15	5	2



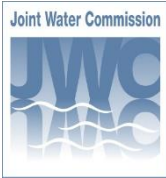
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Challenges: Limited Technical Programs

- **Clackamas Community College**
 - Completions in 2020: 28
 - Location: Oregon City, OR
- **Umpqua Community College**
 - Completions in 2020: 9
 - Limited Program
 - Location: Roseburg, OR
- **Linn-Benton Community College**
 - Completions in 2020: 2
 - Discontinued in 2021
 - Location: Albany, OR
- **Green River Community College**
 - Location: Auburn, WA
 - Enrollment in 2021-22: 14





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Challenges: Competition

Other Water & Wastewater Utilities

- Working together to build workforce pipeline

Private tech companies with manufacturing and in-house water treatment facilities

- Hiring students prior to completion of 2-year degree
- Offering higher pay



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Challenges: Lack of Awareness

Increase awareness and accessibility of water utility career opportunities

- City of Hillsboro Youth Invasion
- Career Fairs and presentations
- City of Hillsboro Operator In Training Program
- Drinking Water Regional Internship Program (DRIP)
- Regional Water Providers Consortium
- WTP Tours
- Expanding CCC online program



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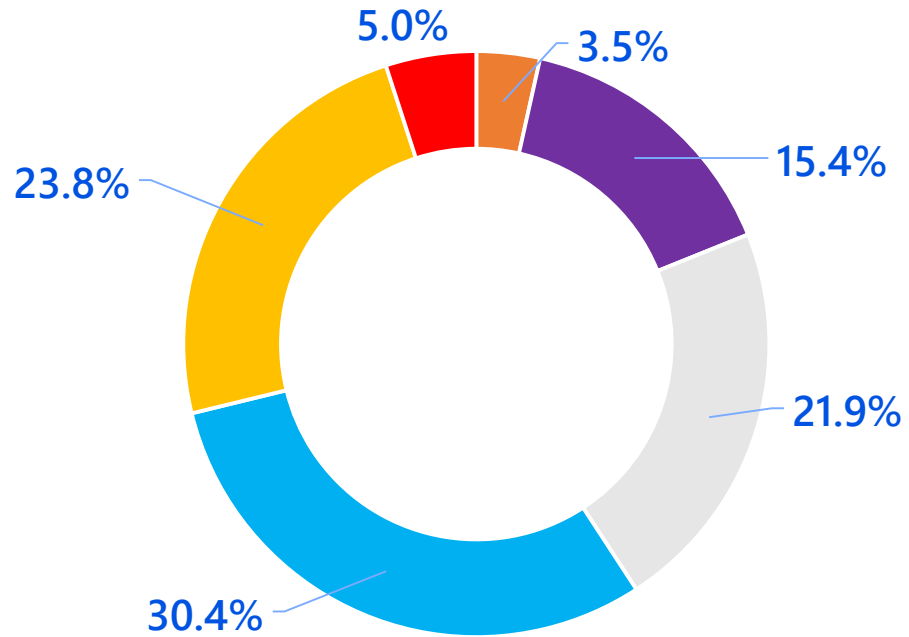


Challenges: Retirement

Age of Oregon Water & Wastewater Operators:

Age Range

- 14-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+





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Opportunities

DRIP: Collaboration of water utilities, Clackamas Community College and Carollo Engineers proposing to build a regional Water Industry Workforce pipeline.

Sought program funding from EPA Innovative Water Infrastructure Workforce Development Grant Program

U.S. Environmental Protection Agency (EPA): Innovative Water Infrastructure Workforce Development Grant Program

- **March, 2021: Applied for Project Area 1 Grant for a total of \$370,215 for two years**

American Water Works Association (AWWA) Water Equation

- **Possible future partnerships to co-apply for EPA grants**
- **Possible funding form Water Equations Scholarship Program**



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Opportunities

Regional Water Providers Consortium

- Possible marketing campaign to raise awareness about jobs in the water industry – High School outreach
- Updating their website to include water industry career information regionalh2o.org

Senate Bill 1545

- Establishes grant programs in Higher Education Coordinating Commission to provide funding for workforce development activities that aim to increase access for priority populations to training opportunities in technology, health care and manufacturing and to workforce development services and benefits.

City of Hillsboro Operator in Training Program

- Funded by American Rescue Plan Act (ARPA)

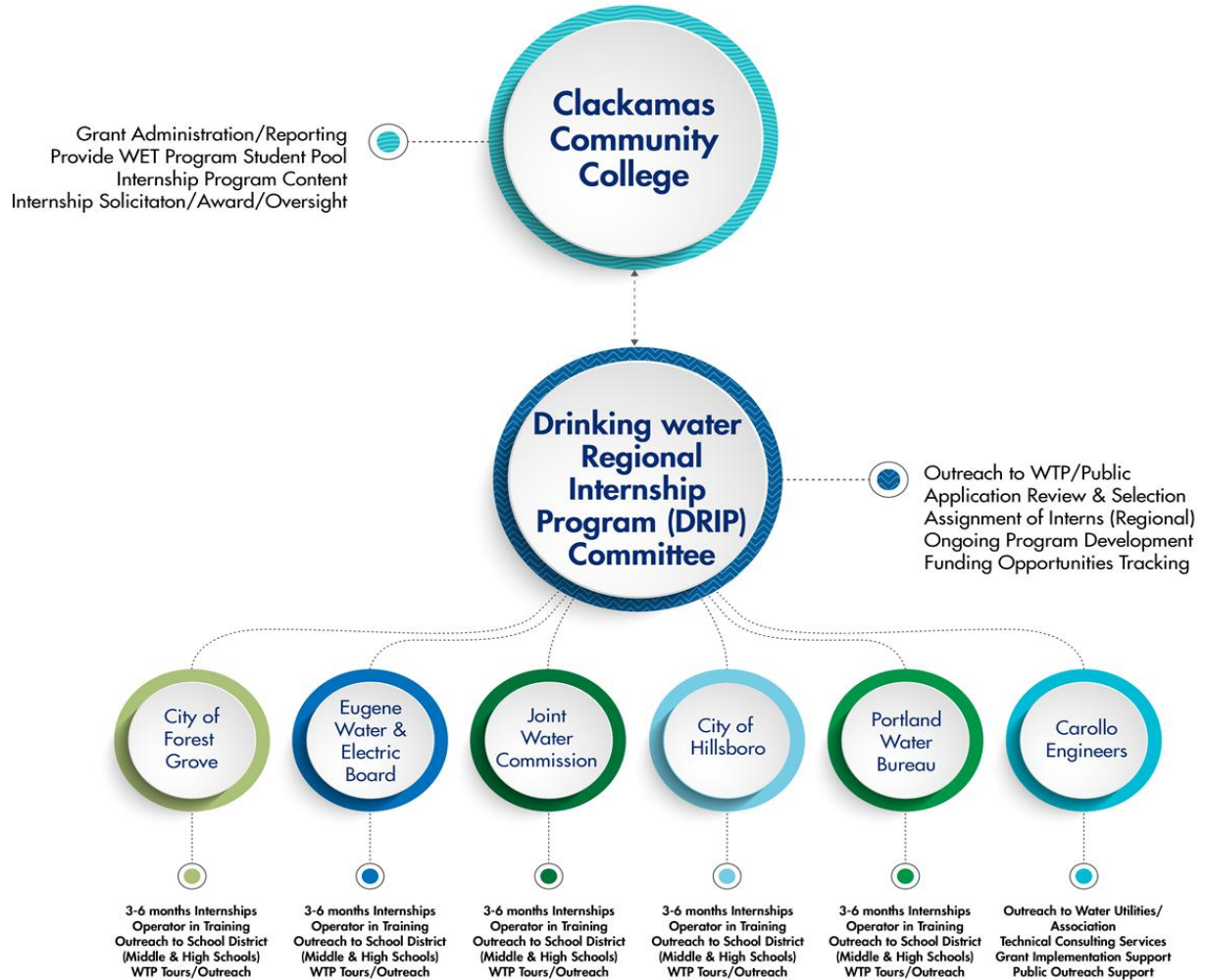


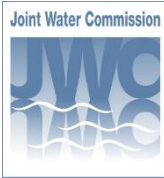
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Opportunities

DRIP Program





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Opportunities

City of Hillsboro Operator in Training Program

- Funded by American Rescue Plan Act (ARPA)
- 2 years funding
- 2 internship positions
- 1 year internships
- Gain skills and experience in water treatment, water distribution, and wastewater system operations
- Earn-while-they-learn
- Four month department rotating schedule
- Experience towards certification

Operator-In-Training HP 2022-51

1 Year, Full-Time, Limited Duration — 2 Positions

Water Department and Public Works Department

Hiring a workforce that reflects the diverse community we serve is essential to delivering exceptional City services and programs. The City of Hillsboro is committed to creating and supporting an inclusive and welcoming environment for all employees to thrive. We value, respect, and empower employees as unique individuals with authentic voices and diverse ideas.

The City of Hillsboro is accepting applications for two Operator-In-Training positions. The training positions will earn-while-they-learn and gain practical skills and valuable experience in water treatment, water distribution, and wastewater system operations. This position will establish credit and hours towards an Oregon Health Authority Drinking Water Operator Certification and a Department of Environmental Quality (DEQ) Wastewater Certification. *There may be career opportunities in Water and Public Works at the City of Hillsboro after completion of the training program.*

Compensation
\$25/hour
Full-time position with benefits

Close
Open until filled. Application review starts January 7th, 2022

About the Training:

Water Treatment Plant (4 months):

- Assist operators and lab technician, including assisting with routine lab testing
- Assist with water testing and flushing during rounds
- Assist with water sampling in the watershed and assist with documentation review

Water Operations (4 months):

- Assist with operations and maintenance activities performed in Hillsboro's Cherry Grove water system working at the Slow Sand Filter Plant, Cherry Grove water distribution and Barney Reservoir
- Assist with water main maintenance activities, valve and hydrant maintenance, meter replacements and other aspect of Water Operations

Public Works, Sanitary Section (4 months):

- Assist with hydro-cleaning and CCTV inspections of underground pipelines
- Learn maintenance management software and how the information is utilized in Public Works
- Learn Geographic Information Systems (GIS) mapping, and a general understanding of federal, state, and local permit requirements

Our ideal candidate will:

- Have interest in but not necessarily have experience in the water/wastewater industry
- Have interest in basic practices of utility construction and maintenance of underground systems
- Possess strong listening and communication skills and able to communicate positively and professionally
- Be able to carry out tasks and/or trainings independently, or in a team environment
- Be organized, conscientious, and reliable with strong time management skills

Requirements

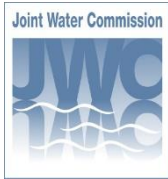
- Must be a current Hillsboro Resident and member of a historically marginalized community
- Must complete and pass a physical, drug screen, and criminal background check
- Must have a valid Driver's License

How to Apply

Visit the City of Hillsboro career opportunities webpage [Hillsboro-Oregon.gov/jobs](https://hillsboro-oregon.gov/jobs) to submit an application and responses to supplemental questions. Partial applications will not be considered.

Questions? Contact Christopher Tenorio, at Christopher.Tenorio@hillsboro-oregon.gov or at 503-681-6109.





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Outcomes

- Increase in workforce pipeline to regional water utilities.
- Increased public awareness of water sector jobs.
- Documented success stories written for newspapers, City/Utility newsletters, college papers, online press.
- Higher demand for water degrees - increased enrollment at Water/Wastewater Technical Programs.
- Increasing the amount of utilities hiring interns.
- Increase the number of participants in the internship program.
- Increase the number of certified operators.
- A diverse, experienced, well-qualified workforce.

Thank You

Chris Wilson: WWSS/JWC
Senior Program Manager
Chris.Wilson@hillsboro-oregon.gov

Kimberly Gupta: PWB
Bull Run Supply & Treatment Manager
Kimberly.Gupta@portlandoregon.gov

