



Water Quality Information Session

November 20, 2023

Housekeeping

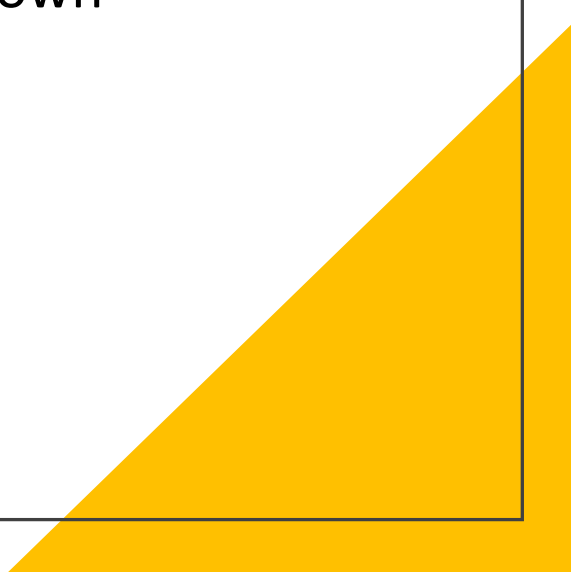
- If you have a question or a comment, please fill out one of your comment cards and provide it to a staff member.
- If you are joining us online, please turn off your camera and microphone to preserve bandwidth and ensure the best quality video of our presentations.



Keeping a respectful meeting

- Please remain respectful.
- Allow our presenters to share their information and allow your fellow attendees to listen.
- Please refrain from raising your voice.
- Please write your questions down as you think of them

Agenda

- Introductions
 - City of Sweet Home Water Quality Presentation
 - US Army Corps of Engineers Injunction & Drawdown Presentation
 - Wrap-up
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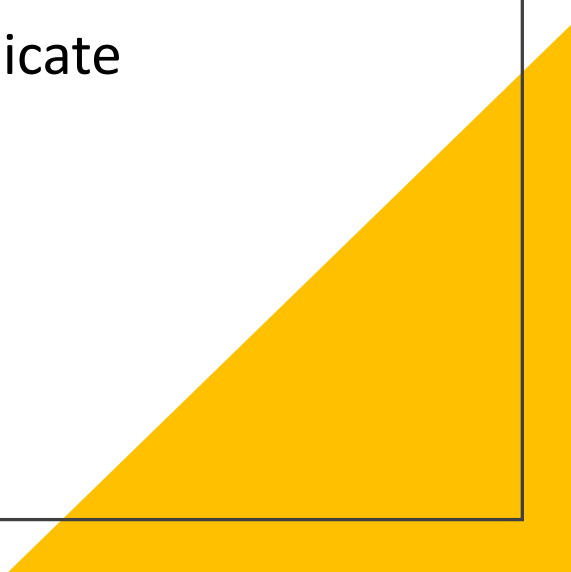
Questions

- Please submit questions in writing
- Please review the Frequently Asked Questions handout
- We will continue to collect questions, and will share the answers on our webpage and social media
- We also plan to have another information session in the near future to answer additional questions

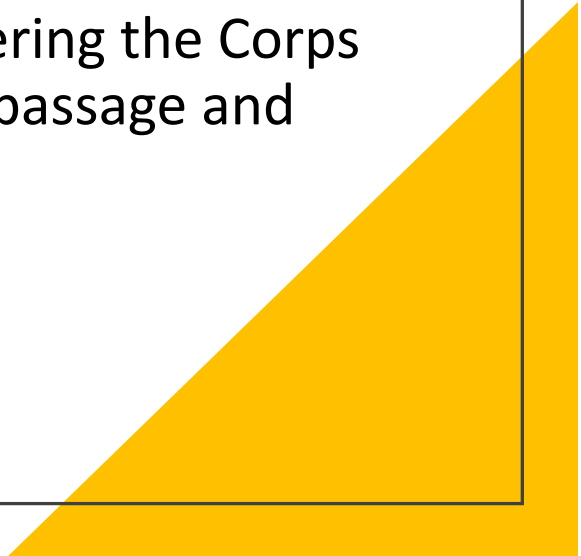
Key Highlights

- Drinking water is currently testing within the required parameters
- Three (3) filters in use at the Water Treatment Plant
- Water Treatment Plant was newly constructed in 2009

Terms & Definitions

- Drawdown: the operation of lowering the water level of a reservoir
 - MGD: million gallons per day
 - NTU: Nephelometric Turbidity Units, used to indicate the relative clarity of the water
 - OHA: Oregon Health Authority
 - Turbidity: a measure of water clarity; high turbidity results in cloudier water
 - WTP: Water treatment plant
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Timeline


- March 2018: Initial complaint filed alleging violations of the Endangered Species Act
 - August 2020: Court rules in favor of the plaintiffs on all claims
 - September 1, 2021: Judge issues injunction ordering the Corps to carry out specified measures to improve fish passage and water quality in the Willamette River Basin
 - Late Summer 2023: Initial drawdown begins
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History of the Water Treatment Plant

- Built in 2009
- Three media (sand) filters in use
- Three reservoir sites with multiple tanks (5.5 million gallon capacity citywide)
- The plant produces award-winning water
 - 2023, Oregon Association of Water Utilities
 - 2010, Cascade to Coast Best Tasting Water Contest

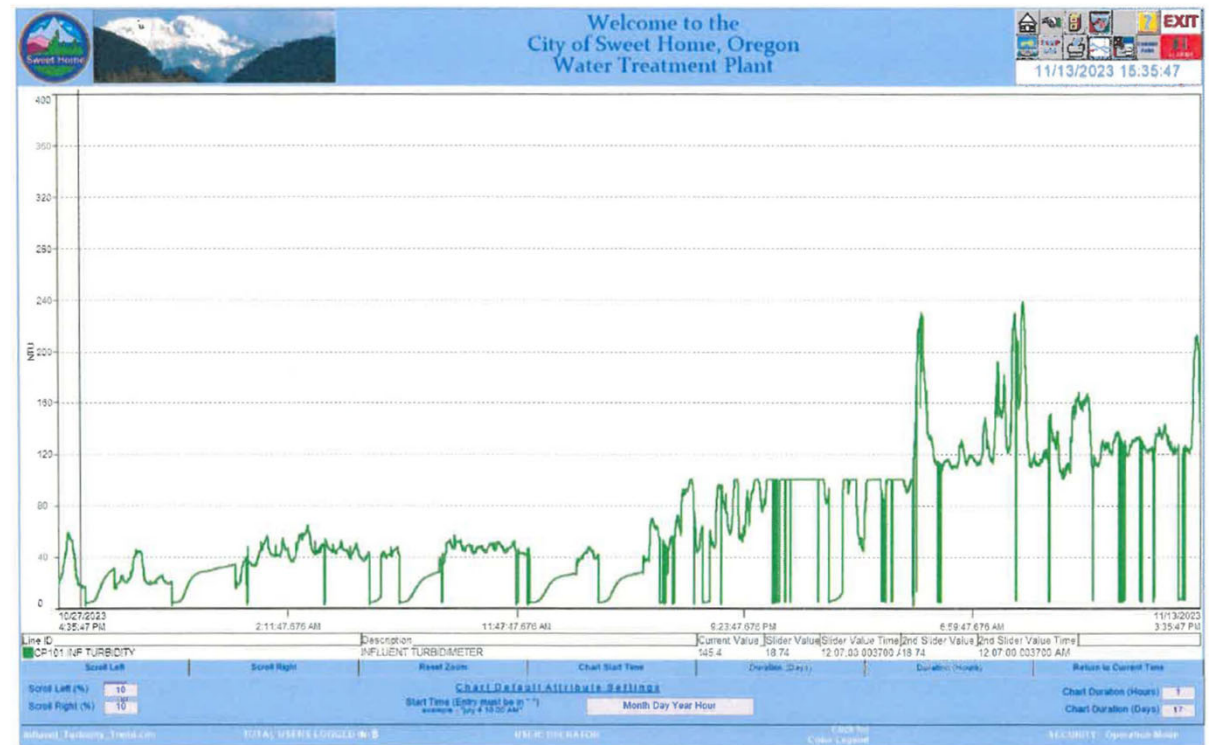


Water is still testing within required parameters

- Staff is working around the clock to maintain operations and water quality
 - Average turbidity for this time of year coming out of Foster Lake is 10 NTU (normal conditions)
 - Turbidity from the lake is between 100-400 NTU (see next slide)
 - Turbidity may rise again with rain events
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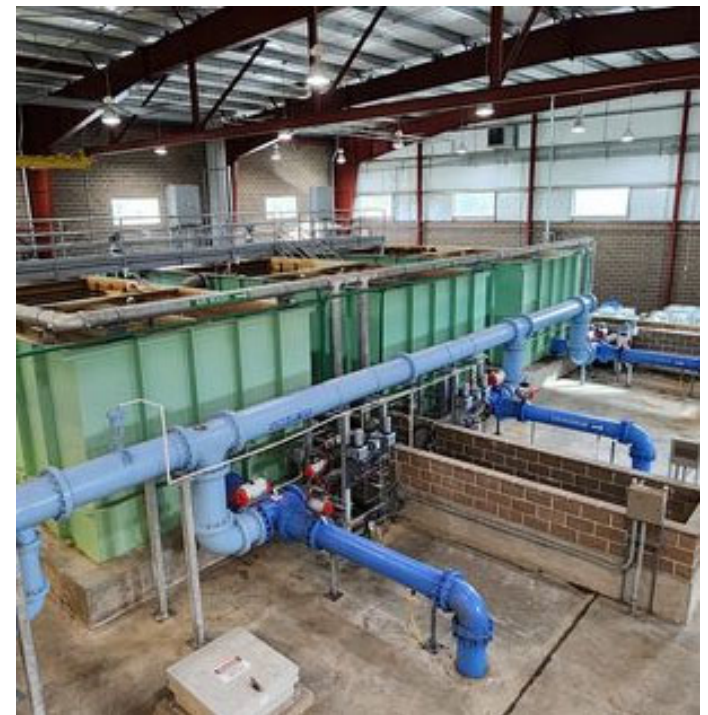
Turbidity Fluctuations

- Average turbidity for rainy weather is around 40 NTUs
- Since this event, our turbidity has typically fluctuated between 100-400 NTUs



How the Filtration System Works

- Three sand filters in use
- Media (sand) is replaced based on the usage of each filter
- All the media in all three filters was replaced over the last two years (for the first time since construction)
- Media replacement is based on usage and loss of sand as it breaks down
 - Tested in a lab for roughness; as media is rounded, it loses efficiency
 - Typically there is a 10-year life cycle but the Sweet Home plant typically runs far below peak capacity, extending the life of the media
 - Even with current conditions, replacement is anticipated to follow the 10-year life cycle or better



Drinking Water Impacts



Still testing within the parameters of the Oregon Health Authority



Sodium hypochlorite is used to disinfect the water before it enters the distribution system

The State of Oregon requires levels at 0.20 parts per million or higher when water leaves the treatment plant
Sweet Home typically sets its internal target at 1 part per million (ppm)

Drinking Water Impacts Cont.



Chlorine residual levels as of November 15, 2023 are 1.044 ppm

Our permit allows up to 4.0 ppm



Chlorine residual levels are kept below 1.5 milligrams per liter

Our typical chlorine residual level is 0.8 mg/L
Our levels currently are ranging between 0.8 and 1.4 mg/L

Typical Testing Protocol

- Daily in-house tests include:
 - Alkalinity
 - pH balance
 - Turbidity
 - Chlorine residuals
- External lab tests include:
 - Coliform (bacteria, including E. Coli; biweekly)
 - Total Organic Compounds (TOCs; quarterly)
 - Alkalinity (quarterly)
- Testing done as needed in the field by staff:
 - Chlorine
 - Color



Testing for Additional Concerns

- Water was sent to the external lab to test for mercury levels
 - Initial sample submitted 11/15
 - External lab will provide results anticipated by mid-December (working on expediting)

Test Results:

Week of November 6th through 12th 2023

Water Quality					
Finish Chlorine			IFE Turbidity		
Min	Max	Average	Min	Max	Average
> 0.20 mg/L	< 4.00 mg/L			< .30 NTU	
1.17	1.87	1.42	0.01	0.20	0.04
Finish pH			Raw Water Turbidity		
Min	Max	Average	Min	Max	Average
> 7.00 pH	< 9.00 pH		61	279	147
7.15	7.59	7.38			

All Data from Grab Samples

IFE= Individual Filter Effluent

Turbidity= Cloudiness of the water

pH= Power of Hydrogen

Test Results:

Week of November 13th through 19th 2023

Water Quality					
Finish Chlorine			IFE Turbidity		
Min	Max	Average	Min	Max	Average
> 0.20 mg/L	< 4.00 mg/L			< .30 NTU	
1.03	1.67	1.28	0.04	0.16	0.05
Finish pH			Raw Water Turbidity		
Min	Max	Average	Min	Max	Average
> 7.00 pH	< 9.00 pH		104	257	153
7.11	7.47	7.32			

All Data from Grab Samples

IFE= Individual Filter Effluent

Turbidity= Cloudiness of the water

pH= Power of Hydrogen

Latest Test Results & Benchmarking Averages*

City	Finished Chlorine	Finished Turbidity	Finished pH
Accepted Range**	4	< 0.3 NTU	< 9
Sweet Home, OR***	1 mg/L	0.03-0.3 NTU	7.2-7.8
Eugene, OR	0.7 mg/L	0.03 NTU	7.9
Portland, OR	2.2 mg/L-2.5 mg/L	0.4-0.7 NTU	8.8
Los Angeles, CA (Malibu)	1.61 mg/L	0.09 NTU	?
San Francisco, CA	?	0.1 NTU	9.2
Phoenix, AZ	0.9 mg/L	?	7.5-8.3
Seattle, WA	1.08 mg/L	0.35 NTU	?
Fort Worth, TX	?	0.7 NTU	8.1-8.5
New York City, NY	0.6 mg/L	1 NTU	7.3

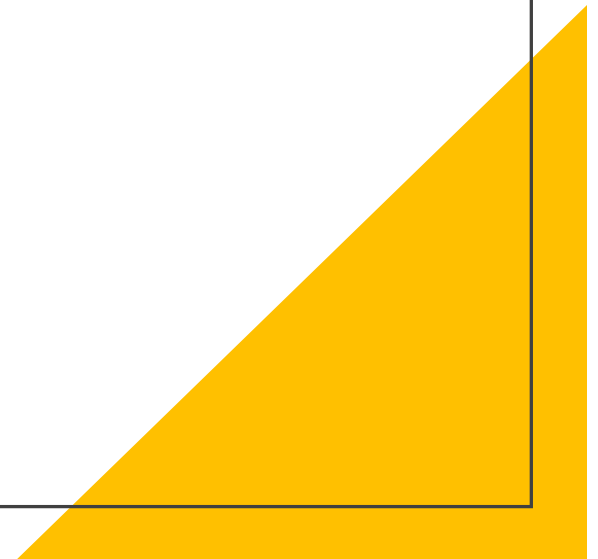
* Other cities' data based on latest available annual water quality reports or responses from water districts

** As required by the Safe Drinking Water Act through Oregon Health Authority; these requirements are specific to Sweet Home and may vary city to city

*** Point in time local data as of 11/16/2023

Other Potentially Impacted Species:

- Cope's Salamander
- Pacific Lamprey
- Freshwater clams
- Freshwater oysters
- Bald eagles
- Etc.



Who Is Involved in Discussing Potential Solutions?

- Congresswoman Lori Chaves DeRemer
 - Governor Kotek's Office
 - Senator Wyden
 - Senator Merkley
 - Representative Jami Cate
 - Representative Shelly Boshart Davis
 - Commissioner Nyquist
 - Commissioner Tucker
 - Commissioner Sprenger
 - City of Albany
 - City of Lebanon
 - Multiple other cities
 - U.S. Army Corps of Engineers
 - Multiple legal firms
 - Multiple private businesses
 - And many others
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Solutions Currently Being Explored:

- Building a coalition
- Filing an injunction
- Litigation asking for the Judge to overturn his ruling
- Fish ladder- will mostly support adult fish
- Fish collectors-may support juvenile fish
- Looking at juvenile passage during drawdown and exploring other options
- Adaptive management



Next Steps

Review and answer questions

- To be posted online

Additional information session(s)

Continued water testing

On-going discussions

Developing a path forward

Key Takeaways

- Drinking water is currently testing safe for use and consumption
- We will continue the community dialogue and investigate next steps, including potential litigation

Contact Information

- Please continue to send questions and comments to Cecily Pretty, cpretty@sweethomeor.gov or use our online submission form
- If you have questions or comments now, please be sure to fill out a card and leave it with a staff member this evening and they will be answered at a later date

Contact Information

Follow us on [Facebook](#) for the latest
and most accurate information!

And check out our website:

SweetHomeOR.gov

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