



AGENDA

Lake Oswego/Tigard Water Supply Partnership

Oversight Committee

Monday July 19, 2021 at 5:30 p.m. to 7:00 p.m. Remote Web-Ex Meeting.

1. **Call to Order/Roll Call** – Chair Goodhouse
2. **Approval of Minutes** of Meeting Held April 5, 2021
3. **Public Comment**
(for items not on the agenda, a time limit of 3 minutes per person shall apply)
4. **Old Business**
 - 4.1 Operations Committee: Activities Report (Bret Bienerth)
5. **New Business**
 - 5.1 Chlorine shortage in June
 - 5.2 River level, conservation
 - 5.3 Backup power study
 - 5.4 Proposed agreement update
6. **Future Agenda Items**
 - 6.1 – OVC Workshop - next steps to be determined

Next Meeting Date: October 11th at 5:30 p.m. to 7:00 p.m. Location TBD

7. **Adjourn**



**Lake Oswego Tigard Water Partnership
Summary of Oversight Committee Meeting
April 5, 2021**

Present via WebEx:

City of Lake Oswego: **Oversight Committee:** Mayor Buck, Councilor Manz
Staff: Erica Rooney, Bret Bienerth, Katy Kerklaan, Susie Anderson

City of Tigard: **Oversight Committee:** Councilor Goodhouse, Councilor Newton
Staff: John Goodrich, Brian Rager

Guests: Bob Ward and Mel Damewood, West Yost Associates

1. CALL TO ORDER/ROLL CALL

Chair Goodhouse called the meeting of the Lake Oswego Tigard Water Partnership Oversight Committee to order at 5:32 p.m. The video-conference meeting was held via WebEx.

2. APPROVAL OF MINUTES OF MEETING HELD FEBRUARY 1, 2021

Councilor Newton made a motion to approve the minutes of the February 1, 2021 meeting of the Oversight Committee as submitted. **Mayor Buck** seconded the motion. The motion passed unanimously.

3. PUBLIC COMMENT

None.

4. OLD BUSINESS

4.1 Operations Committee: Activities Report

Bret Bienerth, Water Treatment Plant Manager, reviewed the information in the meeting packet. Of note, snow pack level was in good position for summer water as long as summer heat didn't come too early. **Councilor Manz** asked if that would be the worst-case scenario with warm weather starting earlier than normal thus driving down the Clackamas River. **Mr. Bienerth** stated if temperatures got really hot early on and melted all the snow in the mountains, that would be problematic because a lot of the water is stored as snow. If most of the snow melts by September then we rely on water coming up through the ground, infiltrating out of underground aquifers in the mountains and flowing to the river. **Councilor Manz** stated that would be the time for conservation to take effect. **Mr. Bienerth** agreed and said that would trigger conservation messaging and curtailment. He didn't recall that ever being necessary and at the moment wasn't concerned about snowpack levels.

Mr. Bienenrth reported work to install the fifth pump at the River Intake was progressing well. **Mayor Buck** asked why the fifth pump was being installed. **Mr. Bienenrth** responded it would provide the ability to run at full capacity in the event one of the other pumps becomes inoperable or is out for repair. All five pumps would never run at the same time but the fifth pump would allow for one pump to be out of service and still be able to produce water at full capacity. **Mayor Buck** inquired as to the life span of a pump? **Mr. Bienenrth** replied after about 10 years each pump's motor would be rebuilt and after about 20 years replacement would be necessary.

5. NEW BUSINESS

5.1 Website presentation

Erica Rooney, City Engineer, introduced Katy Kerklaan, Citizen Information Specialist for the City and noted she also served in that role during construction of the Partnership facilities and was stepping back in to help with updates to the Partnership website and to plan for a five-year Partnership celebration. **Ms. Kerklaan** explained when the Partnership was formed and the project was scoped in 2008, a new website was created with the domain www.lotigardwater.org. The website was created and hosted by a third-party consultant. Over the years the website served as a host of all things related to the Partnership and project including planning and design, construction, and then operations. Once the project ended the goal was to update the website to bring it to a current platform that would be ADA accessible and mobile friendly, retain the domain name, and give City staff the ability to manage the website content. Over the past few months she worked with IT to transition from the old to the new website on a new platform. She explained the old site would serve as a project archive and include thousands of pages that were to be preserved. Those pages would be accessible from a link on the new website. **Ms. Kerklaan** navigated through the website to show the different pages of the new website and its content. **Councilor Newton** stated some Tigard citizens question why Tigard entered into the Partnership. She asked if it were possible to include content on the "about the Partnership" page regarding why Tigard thought the Partnership was a great idea. She also suggested there could be separate links on the home page for Lake Oswego and Tigard customers to take them to their respective websites for distribution and service questions. **Ms. Kerklaan** thanked Councilor Newton for the feedback and stated there were links to the city websites on the outreach page but they could also be put on the home page and there was background information on the Partnership but more could be added to address why it was formed.

5.2 Five-Year Celebration

Ms. Kerklaan referenced the document in the meeting packet listing ideas for commemorating the five year Water Partnership anniversary which would be June 9, 2021. It was June 9, 2016 when the new water system became operational and started supplying water to Tigard and Lake Oswego customers. Lake Oswego and Tigard communications staff had brainstormed some ideas to commemorate the event.

- A new video which would include footage from old videos developed during construction but also include new footage with Mayor Buck and Mayor Snider and possibly drone imagery of the Clackamas River to emphasize the water source. The video would be available on the partnership website and shared by both cities on social media and their respective websites.
- Social media takeover: Have all social media posts by both cities on June 9 be related to the Partnership and/or water. Posts would include how the partnership came about and why, and what's happened since then. Staff from both cities post Instagram stories while working out in the field.

- Adding a little something to the partnership logo to commemorate the occasion.
- Podcast series, Talking Tigard with the Mayors talking water and the Partnership. A Spanish podcast talking about the importance of water and reviewing utility bills. Kevin McCaleb, Water Conservation Specialist, discussing water audits.
- Virtual trivia night hosted by Lake Oswego Public Library. The library started virtual trivia nights during COVID and they have been quite popular. Proposing a water specific trivia night.
- Joint proclamation signed by both Mayors.
- Coloring contest for kids with an education aspect
- Virtual program/Mad Science class for kids focused on water

Ms. Kerklaan noted the expectation wasn't that all of the ideas would be implemented and asked for input from the committee members. **Councilor Manz** commented that the ice cream social held a couple years ago at the Water Treatment Plant was very well attended but that it may be too soon for something like that with COVID and suggested contest winners could receive a gift certificate for ice cream. **Mayor Buck** suggested some type of contest between himself and Mayor Snider or in keeping with Mayor Snider's talk show, have a show with both mayors. **Councilor Newton** thought the ideas were great and liked that the celebration could also be used to educate and the timing was good being the beginning of summer. She suggested conservation messaging and water source could also be a focus. She liked the idea of a podcast with the two mayors and hoped the video would include footage of the River Intake and Water Plant since it wouldn't be possible to provide tours to the public during the time of the celebration. **Councilor Goodhouse** suggested shorter videos instead of one long video and drone images that show water's journey from the mountain to the River Intake, Water Treatment Plant and through distribution to each City. He suggested a water drop's journey of melting on Mt. Hood, going in the river, and the processes it goes through before getting to the tap. He opined it would show why so much money was invested and highlight the state of the art facility that treats the water before it arrives to the tap fresh and clean. **Ms. Kerklaan** referenced the *Path to Pure Water* video. Although it was developed a few years ago it remains current. It illustrates where the water comes from, how it gets to the treatment plant, the treatment process, then distributed through pipelines. She suggested new drone footage in the new video could highlight the different areas in the process. **Councilor Goodhouse** suggested an interactive GIS map that would include photo pop-ups for the different facilities when they were clicked. **Ms. Kerklaan** thanked the group for their ideas and said staff would select a few items from the list presented based on their input. **Councilor Goodhouse** voiced support for having staff on social media as it's nice to meet the people behind the scenes that make things work. **Ms. Kerklaan** concurred and referenced a video created for National Drinking Water Week several years back called *Our Unsung Heroes* which solely showcased the behind the scenes staff. It was very well received and the video has been shared several times since then. **Ms. Rooney** thanked Ms. Kerklaan and Tigard staff for their work and the committee members for their feedback and noted the list of ideas would be pared down before implementation.

5.3 Risk & Resiliency Assessment and Emergency Response Plan Presentation

Ms. Rooney introduced Bob Ward and Mel Damewood from West Yost who were appointed to assist both cities and the Partnership with the risk and resilience effort required by America's Water Infrastructure Act. **Mr. Ward** discussed the background of the consultants working on the plans and outlined the presentation would address the America's Water Infrastructure Act (AWIA), the Risk and Resiliency Assessment (RRA) results, the Emergency Response Plan (ERP), and next steps.

Mr. Ward explained the AWIA was required by Congress but built on work done and input from utilities regarding their water and financial systems. The basis of the report was the 2003 Water System Vulnerability Analysis, the Master Plan for both cities and Partnership documents for facilities from the River Intake in Gladstone to Waluga Reservoir. The AWIA was passed by Congress over two years ago as part of the Safe Drinking Water Act and it expanded on the 2002 Bioterrorism Act to address other elements of water systems including financial, raw water, and cyber security. The goal of the effort was to improve a community water system's physical and operational resilience to all hazards. Utilities of 3,300 people or more are required to complete a RRA and develop an ERP. **Mr. Ward** noted the recent certification deadline dates and explained the documents would be on a five-year update submission cycle. The goal of the project was to complete the RRA for each entity independently, coordinate the ERP plans between the three entities, and hold an ERP exercise that would involve both cities and the Partnership and would be scheduled later in the year. He specified the RRA for the Partnership and the City of Tigard were complete and the City of Lake Oswego's was ready to submit. The ERP for the Partnership was complete, the City of Tigard's was ready to submit and Lake Oswego's would be complete by September 30, 2021.

Mr. Damewood described the RRA as an all hazard approach. The 2003 Vulnerability Assessment primarily revolved around malevolent acts. With all the natural disasters between 2003 and 2018 the EPA decided to start considering an all hazards approach to the RRA. All hazards includes natural hazards such as wildfire, earthquake, flooding; proximity hazards in how chemicals are stored around water sources or within communities; dependency hazards like electricity, chemical supply; and cybersecurity hazards. He referenced the recent attack on the Oldsmar Florida water utility where an alert operator kept a high dose of chemical from entering the water system. The RRA examined the physical attributes of the system including all the water infrastructure and critical assets, associated infrastructure such as electronic, computer, or other automated systems, the security of those systems, and critical practices of the water system including monitoring and operations and maintenance procedures. A threat-asset pair was then developed for all of the assets and their potential threats. He referenced the American Water Works Association J100-10 methodology chart on the presentation slide which assigns an asset, pairs it with a threat and estimates the consequences, vulnerability, and the likelihood or probability of that occurring to the asset. From that a risk in dollars per year figure is determined and risk and resiliency management developed around that. The analysis conducted included approximately 150 threat-asset pairs that had associated risk. The methodology placed all critical assets and threats associated with them into a relative ranking based on risk level. **Mr. Damewood** stated because the meeting was being recorded, and based on the sensitivity of the information, he would be keeping the findings at a high level. If there was interest in more in-depth details, an executive session could be held. He reviewed the top risks:

1. Lack of backup generators at the Water Treatment Plant and River Intake.
2. Earthquake resilience – The earthquake design from the intake, along the raw water pipeline and at the WTP was excellent but the transmission lines and storage facilities downstream from the WTP were likely highest at risk in an earthquake.
3. Cyber Security - Typically with other utilities cyber security ranks #1 or #2 but Lake Oswego Tigard had good and secure cyber security practices. Because of the exposure and possibility of what could happen, cyber security was ranked #3.
4. Utility Resilience Index - Measures operational and financial resilience or the ability for a utility to recover from an incident. Lake Oswego Tigard shined in this area because of the support received from elected officials and the staff's attention to detail. The operational resilience index includes things like having an emergency response plan and whether it's

practiced, utility compliance with the National Incident Management System (NIMS) which is the national standard for emergency response. It also considers whether the utility is part of a mutual aid assistance program which Lake Oswego and Tigard both are members of Oregon Water/Wastewater Agency Response Network (ORWARN). Regarding the financial resiliency index, both cities have AAA utility bond ratings and meet all government accounting standards. Most utilities score in the 50s but Lake Oswego and Tigard scored in the 70s which is relatively high. Areas for improvement were exercising the ERP, bolstering staff resilience, and electrical service reliability.

Councilor Goodhouse suggested the federal government might be a source of funding for improving electrical reliability and potentially purchasing generators. He'd had a conversation with Congressman Schrader regarding the matter and wondered if he had reached out to Mayor Buck. **Mayor Buck** confirmed he had spoken with Congressman Schrader who expressed he was interested in the possibility and would be following up with him. **Councilor Newton** stated she appreciated the asset-threat assessment tool and found it very useful. She thought the example might be presented to the Councils to give them an idea of the depth of the assessment. **Councilor Manz** stated she would like to have an offline, more in depth discussion regarding chemicals whether permanent or transient. The Committee members agreed they would like to hold an executive session to delve deeper in to the details of the assessment. **Mr. Damewood** stated they had participated in executive sessions with other municipalities and would work with Ms. Rooney to schedule. He recognized Kim Swan and the Clackamas River Water Providers as being a helpful resource in conducting the assessment.

Mr. Damewood addressed the ERP and explained there had been coordination of the ERP between the three entities so when an event occurs, all three entities would be working with very similar plans. Each entity was assessed independently while trying to coordinate with the strategies and resources to improve resilience. Detection strategies were examined to be able to detect and respond. Then plans, procedures, and equipment to be utilized in a response were identified and determined what could be shared between the entities. Actions, procedures, and equipment are considered to lessen the impact on public health. A tabletop exercise would be conducted later in summer or fall when staff from all three entities would be able to meet in person. He explained the process for future exercises would include review of the after-action reports of the ice storm and implement any lessons from the storm in to the ERP. The tabletop exercise would be designed with a scenario that is realistic and centered on the Partnership and would include Partnership, City of Tigard, and City of Lake Oswego staff. They will observe how the two cities coordinate during an emergency and then make adjustments to the ERP if necessary. He emphasized the importance of practice exercises. They aid in real emergencies running more smoothly. The ERP is a living document that should be updated with annual review and evaluation, staffing and responsibility changes, emergencies triggering after action reports and improvement plans.

5.4 Storm Event Recap/Update/Next Steps

Mr. Bienerth stated that both the Water Treatment Plant (WTP) in West Linn and the River Intake Pump Station (RIPS) on the Gladstone side of the Clackamas River have two different sub-stations that feed electricity. Both locations lost both of their power feeds during the February ice storm. He recounted the series of events of the ice storm. Thursday, February 11th Lake Oswego and Tigard both filled up their systems in anticipation of the storm event which is common practice. He explained the RIPS has feeds coming from Oregon City and Gladstone and the WTP has feeds from Lake Oswego and West Linn. Friday night both electrical feeds to the RIPS were lost and the feed from West Linn to the WTP was lost.

The plant still had power from the Lake Oswego feed. On Saturday conversations with PGE revealed power would not be restored any time soon so EC Electric was contacted to provide assistance to source a two megawatt generator, the size of a semi-truck, for the intake in Gladstone. Sunday EC Electric spent the entire day connecting the intake to generator power and had it running by 8:00 pm. The WTP lost power from its Lake Oswego feed Sunday afternoon, so despite the RIPS running, were still unable to produce water so another generator was located and delivered to the plant Monday. Mid-day Monday Lake Oswego started to receive water from Tigard via reverse flow for the first time ever. Tigard was able to receive water from Beaverton, Lake Oswego was receiving water from Tigard but it wouldn't be enough to sustain Lake Oswego. The WTP was tied to generator power by 7:30 pm Monday so the plant ran overnight and was able to fill the system back up by Tuesday evening. PGE wasn't able to fully restore power to the West Linn area until Saturday, February, 20th. The RIPS and WTP weren't taken off generator power until the following Wednesday because a part needed for that transition was on order out of Texas which was having its own winter storm event. Mr. Bienenrth shared photos showing electricians working to connect RIPS to generator and the generator set up at the WTP. He noted there were 57 lines to connect/crimp at both ends from the generator to the transformer. A fuel truck delivered fuel twice daily to the plant and once a day at the river, 1500 - 1800 gallons per day to run both facilities. He noted some treatment facilities had trouble getting fuel to their sites due to weather conditions and roads blocked with storm debris. March 2nd Lake Oswego City Council awarded a contract to EC Electric for emergency services work for up to \$400k. The actual invoice was \$172,696.33.

Mr. Bienenrth continued, if the Committee approved, staff hoped the next step would be to commission a study to explore back up power options. Part of that would be to determine how much capacity would be needed for back up. The generator used at the WTP supplied enough power to produce 15 - 19 MGD. The plant's capacity is 38 MGD. Peak demand during summer had been as high as 24 MGD. If the cities are fully built out in 10 – 20 years, the portable generator would not be adequate to maintain operations during a summer time event. Possible backup power options for the future would be to continue to rely on the dual feeds from PGE, install portable generator connections (pig tails) at each site, or install permanent generators at one or both sites. The American Recovery Plan may be a possible funding source. **Councilor Goodhouse** voiced concern regarding being able to get portable generators to the sites in the case of an earthquake or streets not being passable due to storm debris and voiced his support for on-site generators with back up fuel tanks. He acknowledged storing fuel at the intake along the river could pose environmental issues. **Ms. Rooney** stated onsite generators and fuel storage were considered during design of the facilities but it was determined not feasible due to environmental and neighborhood concerns at both locations. The PGE dual feed was determined to be the best option but loss of electricity seems more common than anticipated. She proposed reviewing the work done during design which produced some good alternatives, consider what was learned from this event, and revisit the alternatives. **Mr. Goodhouse** opined providing water to two communities might outweigh the negative impact of occasional noise in neighborhoods. **Mayor Buck** asked what direction was needed from the Committee to move forward with the study and what the budget would be. **Ms. Rooney** stated she would gather more information and get cost estimates to share with the Committee at the next meeting. She hoped it would be relatively small and fall within staff contract approval limits. **Councilor Newton** voiced her support for the proposed approach. She acknowledged the impact onsite generators would have on neighbors and the environment but the impact of two communities potentially being without water also needed to be considered. She gave kudos to the Partnership team for working through the emergency together and supporting each other. **Ms. Rooney** voiced her appreciation for Lake Oswego and Tigard staff who were incredibly resourceful during the

event and pointed out many were without power at home but came to work. **Councilor Goodhouse** suggested working as a Partnership to communicate with Congressman Schrader to enlist his help regarding the backup power problem and its cost burden. **Ms. Rooney** expressed staff were excited to see that water and wastewater were top priorities for the America Recovery Plan. It posed an opportunity that wasn't available a couple of months ago and was hopeful there would be funds available in that realm.

6. FUTURE AGENDA ITEMS

6.1 OVC Workshop – next steps to be determined

Ms. Rooney stated the workshop was intended to provide an opportunity TO talk about ideas regarding possible changes to the existing agreement. COVID-19 had interfered with holding an in-person meeting. **Councilor Goodhouse** said Tigard was still in the process of drafting an operating agreement and once complete would like to schedule a date to discuss the changes.

Councilor Goodhouse proposed moving the July 12th meeting as he had a conflict. The Committee members concurred.

Councilor Newton recognized John Goodrich's retirement and expressed her appreciation for his years of service. **Mr. Goodrich** stated his last day with the City of Tigard would be June 3rd. He said he worked for Tigard for 15 years and had enjoyed his time there. He thanked the group for their kindness and support over the years.

Respectfully Submitted,

Susie Anderson
Administrative Assistant

Approved by the Oversight Committee:



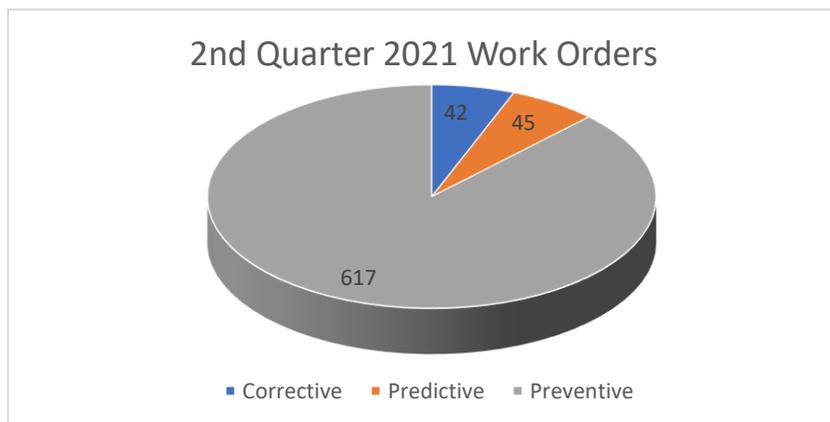
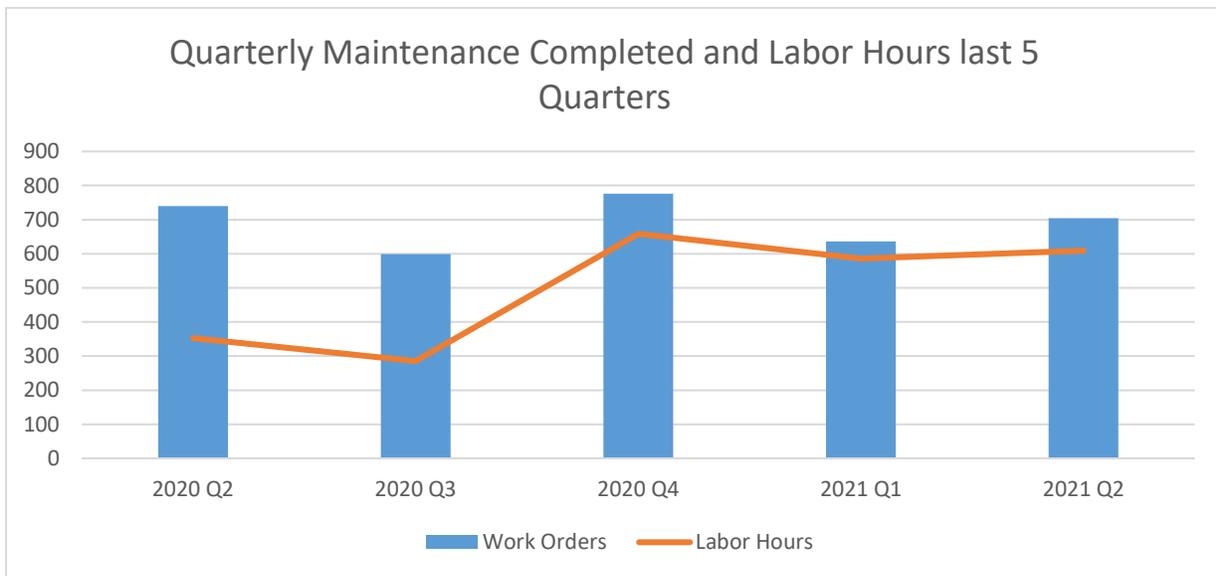
4.1 Lake Oswego Tigard Operations Committee Report July 19, 2021

Water Quality:

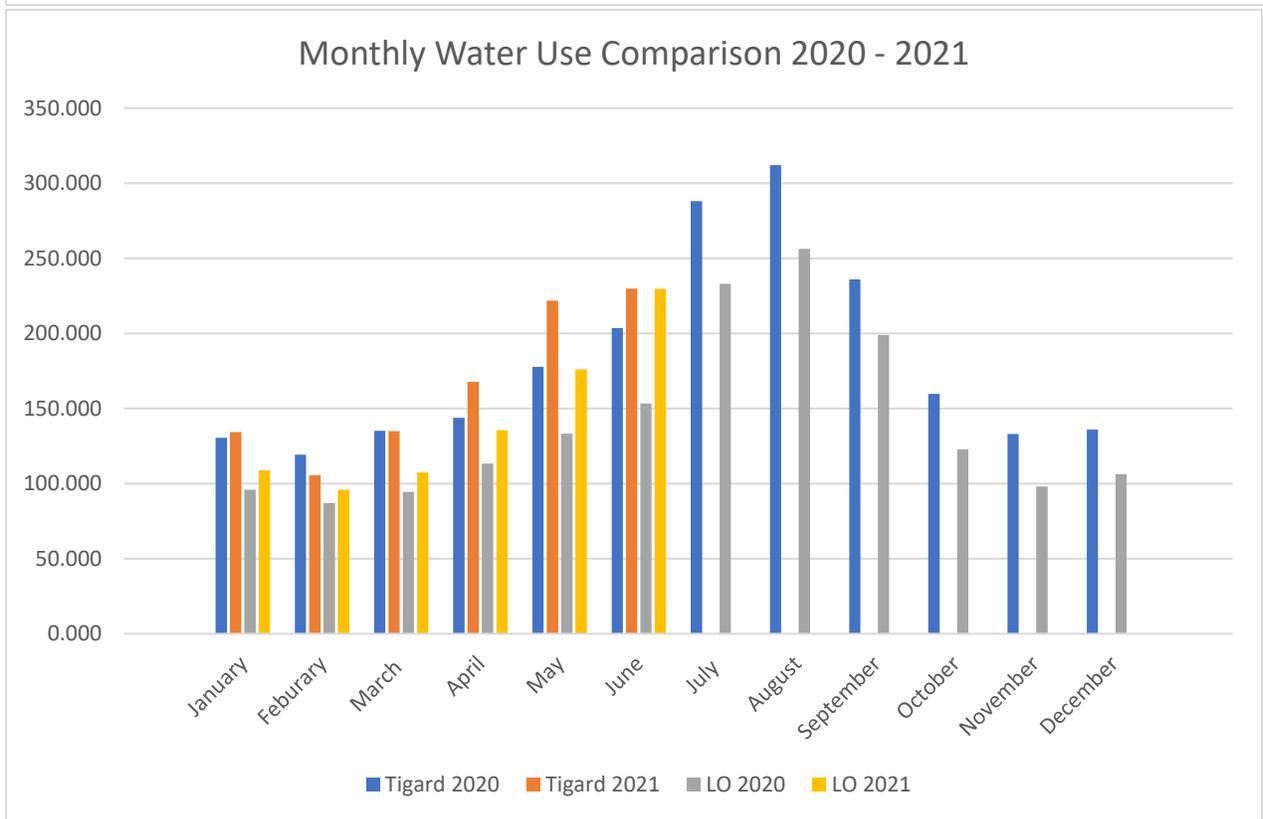
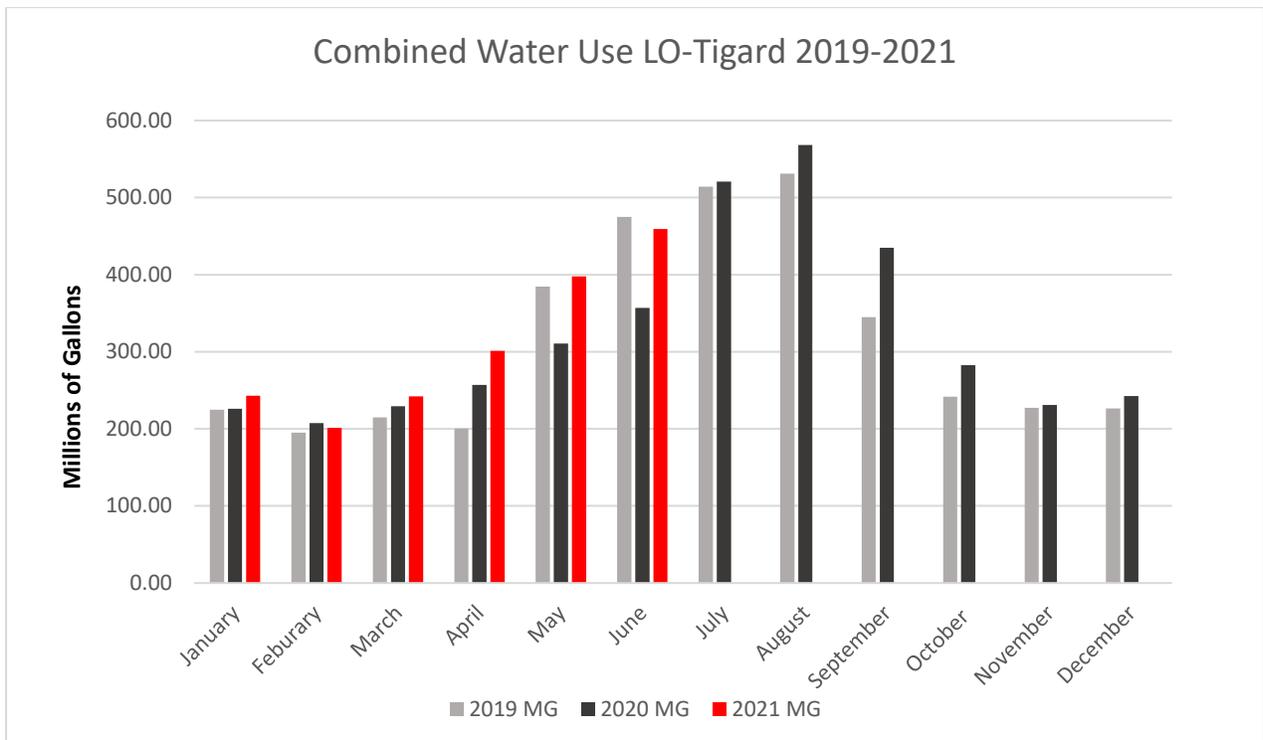
There were only a couple of water quality calls in the last three months. All calls were related to pipeline work, customer equipment failures (water filters needing refreshed), or faulty customer test strips.

Asset Management:

In the second quarter of 2021 we completed 704 work orders. Of these work orders 662 or 94.03% were either preventive or predictive maintenance.

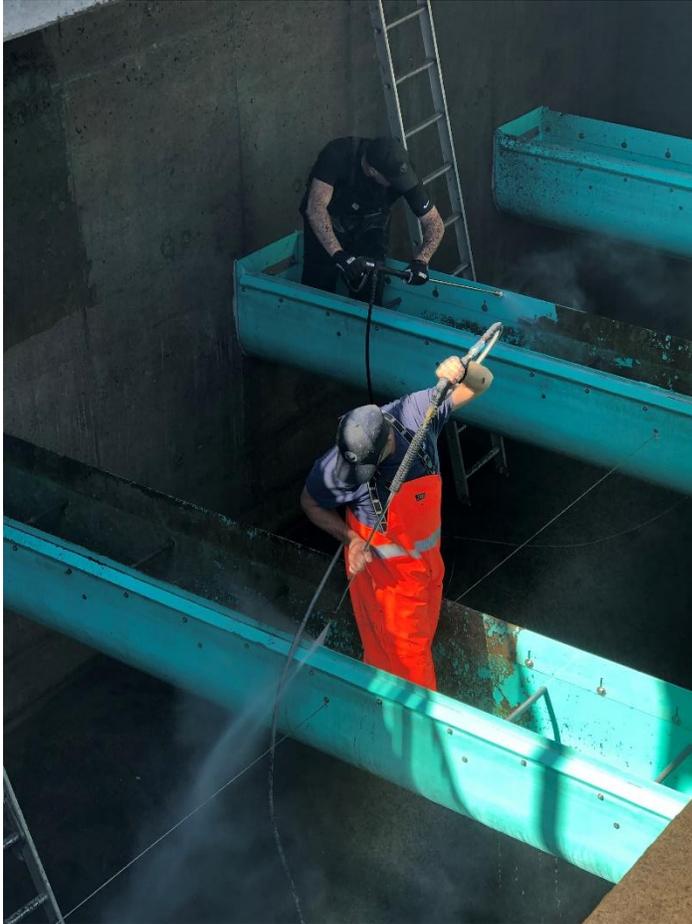


-Water Production:



Major Projects:**RIPS #5 Pump**

The fifth RIPS pump is installed but needs to have its base stiffened in order to pass vibration testing.

Filter Cleaning

In April and May we perform an annual deep clean on each of our 6 filters. Each cleaning takes around 6 hours and involves between 3 and 5 people.



2801 Post Oak Blvd., Suite 600 ■ Houston, Texas 77056
Tel 713.960.9111

June 9, 2021

RE: Force Majeure Notice for Chlorine, Hydrochloric Acid, and Caustic Soda

Dear Customer,

Effective immediately, Westlake Vinyls, Inc. (“Westlake”) and Axiall, LLC (“Axiall”) are declaring a force majeure condition for chlorine, hydrochloric acid, and caustic soda manufactured and shipped from its Longview, Washington manufacturing facility.

Westlake’s/Axiall’s chlor-alkali production have been directly and adversely impacted due to the sudden and unanticipated failure of a critical piece of electrical equipment. This equipment failure has disrupted the manufacturing process thereby resulting in limited availability of chlorine, hydrochloric acid, and caustic soda to our customers.

At this time, we cannot predict the duration of this force majeure event. The effect of this force majeure situation will cause supply disruptions and limit our ability to meet anticipated product demand. While this force majeure event declaration is required at this time, Westlake/Axiall is continuing to work to lessen the impact on our customers.

Westlake/Axiall sales professionals will be in contact with you to discuss the impact of this force majeure. We sincerely regret any inconvenience this causes your company and our need to inform you of this situation. We greatly appreciate your company’s patience, understanding support in working with us through this difficult time. We are committed to keeping you informed as our current situation develops and to restoring our supply position as quickly as possible.

If you have any questions regarding this force majeure event condition, please contact your Westlake/Axiall sales professional. As always, Westlake/Axiall values your business.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Noel Irizarry'.

Noel Irizarry
VP, Chlor-Alkali and Derivatives

Cc: David Kokowsky
Casey Madere
Shell Zhang
Paul Kowalski
File

June Chlorine Shortage

On June 9th Westlake Chemical, in Longview, Washington, issued a Force Majeure Notice stating that they could not produce chlorine products after the failure of a critical piece of electrical equipment (a large transformer). This single facility produces most of the chlorine used in Oregon, Washington, and Idaho. There are multiple distributors of chlorine products in the Northwest, but the large distributors all get their chlorine from Westlake.

In response to the chlorine shortage Lake Oswego and Tigard coordinated our actions including the following:

- Tigard turned on their wells and ASRs. These systems have their own chlorine storage or generation capabilities. All together these sources provided 4 million gallons of water per day which meant the WTP did not have to use its chlorine to treat the equivalent amount of water.
- The WTP reduced its chlorine residual target by 20% on the water leaving the plant. The reduction was from 1.20 mg/L to 1.00 mg/L. The state minimum is 0.2 mg/L of chlorine residual leaving our treatment plant.
- Lake Oswego and Tigard monitored our distribution systems for drops in chlorine residuals.
- Both cities reduced irrigation at city facilities and produced joint voluntary water conservation messaging.

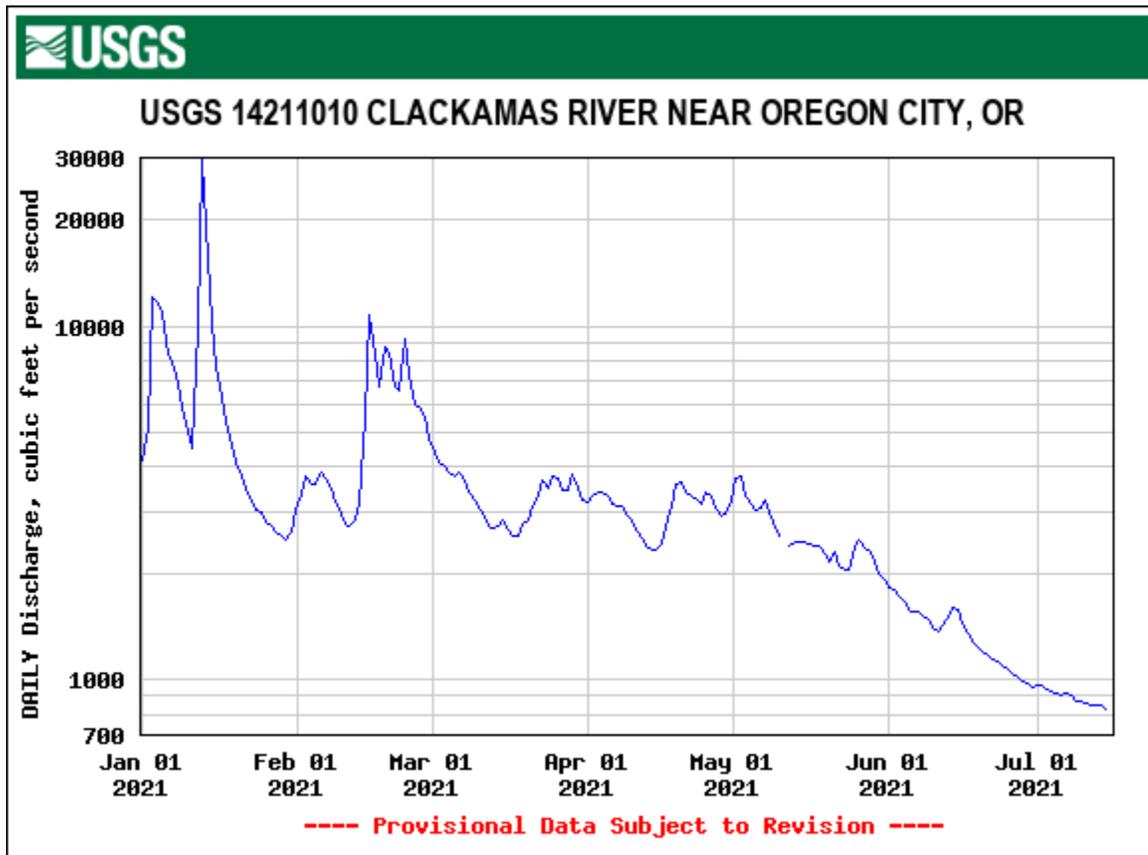
In response to the shortage our distributor, HASA, secured several rail cars of chlorine from British Columbia which they used to take care of their most needy customers. Thanks to Tigard's and Lake Oswego's quick response our WTP always had at least a 3-week supply of chlorine. We received a load of chlorine on 6/28 and received a second load on 7/12. Westlake's facility is producing chlorine again and the emergency has passed with HASA now fully capable of meeting our needs.

Clackamas River Level

Clackamas River Flows

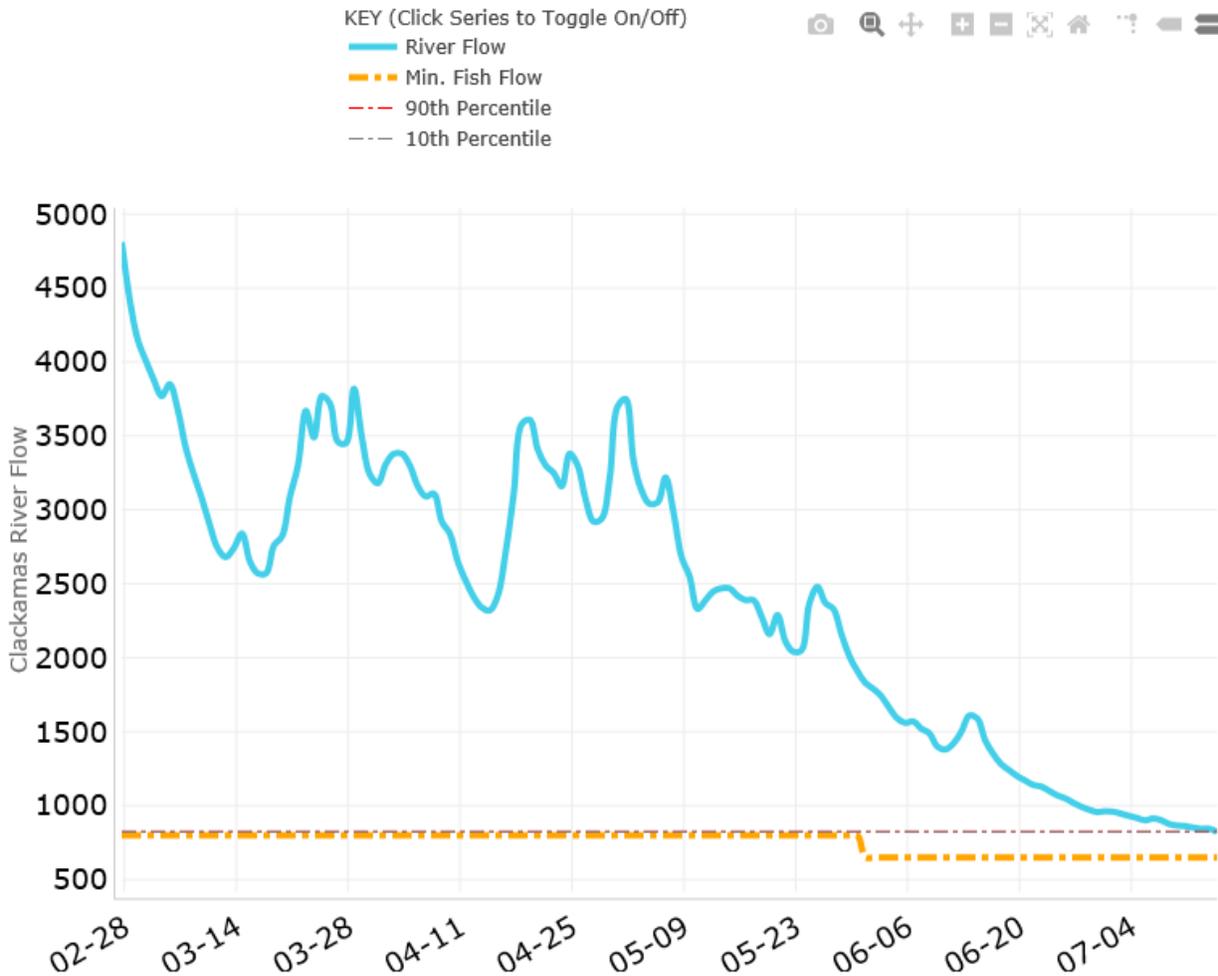
The Clackamas River is suffering from low flows as the drought that most of Oregon is currently in has affected it. The above average snowpack in late winter / early spring may have helped earlier, but most of that snow is gone and the Clackamas is getting its water from underground aquifers.

2021



Curtailement Calendar:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
800 CFS					6/1 - 9/15: 650 CFS			9/16 - 5/31: 800 CFS			
Seven day rolling average of Mean Daily Flows											



With river flows currently approaching 800 cubic feet per second there is a strong possibility of needing to curtail water use, especially after September 16th.