Lake Oswego · Tigard Water Partnership
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AGENDA

Lake Oswego/Tigard Water Supply Partnership

Oversight Committee

Monday April 11, 2022 at 5:30 p.m. to 7:00 p.m. Lake Oswego Operations Center

1. **Call to Order/Roll Call** – Chair Manz

2. **Approval of Minutes** of meeting held January 10th, 2022

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)
   - 4.2 Standby power study update (Bret Bienerth)

5. **New Business**
   - 5.1 Budget report
   - 5.2 Summer water forecast
   - 5.3 IGA agreement next steps (Erica Rooney)

6. **Future Agenda Items**

Next Meeting Date: July 11, 2022 at 5:30 p.m. to 7:00 p.m. Location TBD.

7. **Adjourn**

Lake Oswego Tigard Water Partnership
Summary of Oversight Committee Meeting
January 10, 2022

City of Lake Oswego:	**Oversight Committee:** Mayor Buck, Councilor Manz Staff: Erica Rooney, Bret Bienerth, Susie Anderson
City of Tigard:	**Oversight Committee:** Councilor Goodhouse, Councilor Newton Staff: Brian Rager

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1. CALL TO ORDER/ROLL CALL

The meeting of the Lake Oswego Tigard Water Partnership Oversight Committee was called to order by **Chair Goodhouse** at 5:34 p.m. The video-conference meeting was held via WebEx.

2. APPROVAL OF MINUTES

Councilor Manz moved to approve the minutes of the meeting held October 11, 2021. **Mayor Buck** seconded. The motion passed unanimously.

3. ELECTION OF CHAIR AND VICE-CHAIR

Mayor Buck nominated Councilor Manz as Chair for the 2022 calendar year. **Councilor Newton** seconded the nomination. **Councilor Manz** nominated Councilor Newton as Vice-Chair. **Mayor Buck** seconded the motion. Both motions passed unanimously.

4. PUBLIC COMMENT

None.

5. OLD BUSINESS

5.1 Operations Committee Activities Report

Mr. Bienerth reviewed the details of the report in the packet. Of note, water production for 2021 was at an all-time high of 4146.49 MGD. He attributed that to increased water use during the abnormally high temperatures in the spring and early summer. He noted Tigard's water use had exceeded Lake Oswego's over the past two years, likely to due to Tigard's growth.

Mr. Bienerth reported the fifth pump at the river intake had been installed and was in use. Unfortunately, pump four had recently failed. It was believed the shaft that leads from the motor down

to the impellers in the water had broke. He stated the estimated cost to remove the pump, transport it, and disassemble for further evaluation was over $30K and repair would be an additional expense.

Mr. Bienerth stated Bob Burgeson would be retiring after 35 years with the Water Treatment Plant. Bob served as a senior plant operator as well as the main maintenance person in the old plant. When the new plant came online two additional full-time maintenance staff were brought on and they have absorbed most of Bob's maintenance duties. **Councilor Manz** expressed her appreciation for his years of service and asked if recruitment for his replacement had begun. **Mr. Bienerth** replied the position had been posted and there were currently five applicants and 160 clicks on the posting which would remain open until the end of the month.

Mayor Buck asked about the change in labor efficiency over the past two quarters. **Mr. Bienerth** responded much of the recent HVAC work had not yet been logged and explained most of that work was conducted by an outside contractor so there usually was a lag between when the work was done and when it's entered into the database. He speculated the gap would close once those completed work orders were reflected. **Mayor Buck** noted the increase in water production and that commercial and residential rates were different and asked if there was a clear way to determine if conservation efforts were working. **Mr. Bienerth** stated Lake Oswego had primarily residential accounts but it was a matter of tracking the number of users and the amount of water distributed. The upcoming installation of automated meters would make tracking much easier and would provide more detail. He noted there were some high-volume users like the high schools. **Mayor Buck** asked about the status of the automated meter installations in both cities. **Ms. Rooney** replied about half had been installed in Lake Oswego but it had slowed over the past year because of supply chain issues. **Mr. Rager** stated Tigard was requiring the automated meters in all new sub-divisions and there was an interest in replacing all the older meters but it hadn't been financially feasible. Recently, the Tigard City Manager had asked staff to develop a multi-year project to replace old meters with AMI meters. He estimated the cost would be roughly $6M at current pricing but with inflation it could be much higher. **Mr. Bienerth** stated he would be working with finance to determine water use among the different categories of users. **Councilor Goodhouse** asked why high schools would have high water use. **Mr. Bienerth** replied that 1500 students and staff occupy the building daily and athletic fields are on irrigation. **Ms. Rooney** added Lake Oswego School District, as a whole, was the city's largest water user. **Councilor Newton** pointed out a lot of food preparation occurs in the schools, as well, which requires a lot of water use.

5.2 Standby Power Study Update

Mr. Bienerth referenced the two tables in the meeting materials. He stated Carollo Engineers had performed a study on available standby power options. The initial portion of the study was a high-level overview resulting in diesel fuel generator, natural gas generator, and propane generator being the top options. Other options like solar and battery proved to not be viable. He thought there would be land use issues to address at the Water Treatment Plant. **Councilor Goodhouse** commented he had previously brought up the possibility of either running standby power parallel along the river bank or across the river from the intake and asked if that had been considered. **Mr. Bienerth** responded it wasn't part of the Carollo study but he had reached out to the Tri-City waste water plant across the river to discuss the possibility. They don't have excess capacity so it would be a matter of building on their property. He was waiting to hear back from them. **Mr. Bienerth** referenced the second table which outlined the different types of generators, cost comparison, and pros and cons. He explained there would be annual maintenance and land use restrictions with a stationary diesel generator. Portable

generator connectors or generator rental wouldn't require maintenance and land use issues could be avoided. He acknowledged trying to rent a generator in the moment could be a challenge and stated big box stores like Home Depot rent generators before going in to the week of a weather event knowing they will pay the $40K rental fee whether they need to connect to the generator or not. He pointed out the large cost range of the generator connectors at $70K - $907K. Where the physical connection to the grid was made at the plant would determine the cost. Approval from PGE would be necessary for either option. The different variables to be considered accounted for the broad cost estimate. He continued it would be necessary to have a separate smaller system for overnight power. During the ice storm when the plant and generator were shut off for the night there was no power to the admin building. **Ms. Rooney** pointed out large generators don't run efficiently when they're only running a fraction of the power so that's why it would be necessary to have two systems, one that's quiet and less powerful for overnight and a large system to run the plant. **Mr. Bienerth** said the smaller system could be either a stationary generator or a battery system. Battery systems don't have emissions and are very quiet but are significantly more expensive than a generator and require battery replacement every five years at a cost of $400K. **Councilor Goodhouse** asked about the lifespan of a stationary generator and noted the maintenance expenses looked to be less. **Mr. Bienerth** replied the life expectancy would be 30 - 40 years and at that time there would likely be very few hours on the equipment. **Councilor Goodhouse** liked the idea of having onsite backup in the event access to the plant was limited or not possible. **Mr. Bienerth** agreed and stated it was difficult to get the generator to the plant during the ice storm. **Mayor Buck** asked what the process would be with West Linn regarding land use if the permanent generator at the plant was the selected option. **Ms. Rooney** stated the idea had not yet been broached with West Linn. Typically, the large generators are put inside a building and that would likely require land use process or at a minimum, a building permit from West Linn. She fully expected concern and outcry from the neighbors and speculated it would be a six to nine-month process. **Mayor Buck** suggested exploring the feasibility politically with West Linn. **Ms. Rooney** pointed out West Linn was without water during the ice storm so could emphasize the possibility the plant might provide some water to West Linn in a power outage if a backup power source were available. The Risk and Resilience Plan could be presented and it shows a poor standby power system as the number one risk for the plant. The report is federally required and didn't exist during the land use process before construction. Presenting it now would be advantageous. **Mayor Buck** stated in a recent discussion with PGE they indicated they were taking steps to improve redundancy at the facilities. **Ms. Rooney** said the dual feed option was chosen for the intake and the plant because it was less expensive and wouldn't require land use. They hardened those feeds after a couple of outages that occurred a few years ago. Now they are considering hardening them further. With all due respect to PGE, she didn't trust that would be enough. During the last outage it wasn't just the feeds coming from both directions along Highway 43 that feed the plant, there were issues much further out, as well. Having a different system than just PGE supplied electricity was the only way to assure having an alternate electrical supply. **Mayor Buck** clarified the portable generator scenario would require ordering generators and having them delivered in anticipation of a forecasted weather event and paying the rental fee each time regardless of use. **Mr. Bienerth** stated the possibility of purchasing a portable generator was discussed but neither City has a vehicle large enough to move one so rental would be necessary. **Mayor Buck** speculated there could be potential to rent portables on a regular basis. **Mr. Bienerth** referred to an emergency snow forecast a couple weeks prior that didn't really materialize. Had he rented portable generators for that it would have cost the City $70K and they wouldn't have left the storage yard. **Mayor Buck** asked where the funding would come from. **Ms. Rooney** responded the initial expenditure had been discussed with the Lake Oswego City Council and identified for ARPA funding. **Councilor Newton** suggested Lake Oswego planner could evaluate the potential for land use issues. She speculated it may not be complicated depending on where the

building was sited and there could be conditions outlining the definition of an emergency and addressing appropriate times to test the generator. She acknowledged there would be a handful of people against it just based on the past history but thought it best to be forthcoming with the neighbors early. She wasn't too concerned about land use and thought it could possibly be an administrative review by staff or a hearings officer. She suggested if the decision was to go with portable generators perhaps it would be possible to arrange with a company to have a retainer so if there were a need for a generator there would be priority. **Mr. Bienerth** clarified with a rental generator there would be no hookup or transport fees if the generator didn't leave the yard, only the rental fee. He had asked rental companies about the retainer possibility and they won't operate that way. **Ms. Rooney** reiterated any access issues would be moot if there was a generator onsite. She stated Kenthorpe Way was closed for a period of time during the ice storm because one wire was down. It took half a day to determine if it was electric or something else and what to do about it. The risk and trade-off were if there's inaccessibility a permanent generator could be started up. Once running, fuel delivery would be necessary but the facility could operate for a day or two while roads were cleared. She acknowledged no one situation was perfect, it was a variety of trade-offs. **Councilor Goodhouse** inquired about the feasibility of using hydroelectric power, not just for emergencies but to power the plant year-round since the river is so close by. **Mr. Bienerth** replied the study included the hydroelectric option and it was determined that option wouldn't provide anywhere near enough power to run the pumps. Some facilities are able to use hydroelectric because their source water is at a higher elevation and runs down. The plant situation is the opposite. The source water is pumped up to the plant then pumped up into Lake Oswego then to Tigard. **Councilor Goodhouse** asked if aerial/helicopter refueling an onsite tank would be a possibility. **Mr. Bienerth** said he hadn't considered that option but found it interesting for the plant. He wasn't as concerned about getting fuel to the intake because of it's close proximity to I-205. **Councilor Goodhouse** expressed his preference for having onsite generators and using ARPA funding. He opined it was a more secure source. **Councilor Manz** asked what sort of direction staff was looking for from the committee. **Ms. Rooney** replied she would like to gauge the groups preference so staff could start to prepare a more formal proposal with more accurate numbers. She hoped to get clarity on their preference and then return with a final recommendation. **Councilor Newton** voiced her support for a permanent generator at the plant due to its location and potential access issues and didn't think land use would be difficult. **Councilor Manz** asked for a show of hands of who was in favor of a permanent generator at the plant. All committee members raised their hands. **Mayor Buck** stated the Lake Oswego Council had agreed to use ARPA funds for the project and suggested the same commitment from the Tigard Council would be appreciated. **Councilor Newton** responded Tigard had received quite a bit of ARPA funding and didn't think it all had been spoken for. She stated this project would be a high priority for her. **Mr. Rager** stated be believed Tigard still had some ARPA funding available and would speak with the City manager and Assistant City Manager. **Councilor Goodhouse** stated he had previously mentioned the possibility of using ARPA funding for this project with the City Manager. **Mayor Buck** asked if the maintenance expenses with a permanent standby system could possibly result in rate increases to customers. **Ms. Rooney** stated she didn't think it would affect rates because it would be annual maintenance, not a full-time function to manage the generator. **Mr. Bienerth** added there were companies that conduct this specific type of work. City Hall and the Operations Center both have generators that receive annual maintenance and service. **Councilor Manz** asked when staff would be able to present a more definitive proposal to the group. **Ms. Rooney** responded staff could come back with more clarity on the project and numbers at the next meeting in April. She noted she would be presenting a high-level overview about the project at the ARPA discussion the following week with Lake Oswego Council. **Councilor Goodhouse** asked what the estimated cost to each City would be if they went with the permanent generator option and did the

numbers presented include everything like permitting and land use. **Mr. Bienerth** responded the numbers presented were for the equipment and getting it connected. **Councilor Goodhouse** requested a number so each City could earmark funds. **Ms. Rooney** said it would be good if each City could set aside $1.6 - 2 million to cover the intake and the plant and staff would be able to give a more accurate number at the next meeting. She added ARPA funds must be obligated by the end of 2024 and spent by the end of 2026.

6. NEW BUSINESS

6.1 Budget Report

Mr. Bienerth referenced the budget graph and report in the meeting packet and indicated spending was on track. He noted Q1 spending for electricity and water treatment chemicals may seem high but explained Q1 water production is highest for the year as it's the hottest summer months. He stated he felt comfortable with how the numbers were tracking and thought the equipment repair and service budget would be able to afford the cost of repairs for the RIPS pump 4. He noted as of the end of Q2 there was 77.22% budget remaining for the biennium so being a quarter of the way through the budget cycle, spending was tracking right on. **Councilor Goodhouse** referenced the recent chlorine shortage and asked if an additional structure were built for a generator, could it include storage space for additional chemicals. **Mr. Bienerth** replied there had been some discussion regarding additional chemical storage among staff and explained chlorine didn't store well for very long so having extra on hand wasn't feasible. He stated currently oil was being stored in the chemical building and there had been discussion of moving the oil to the new structure to free up space to store extra dry chemicals that have a longer shelf life. He added staff had also explored the possibility of onsite generation of chlorine and found the initial cost would be $4 - 6M. **Councilor Goodhouse** asked how that would pan out over time and if it would break even, be a savings, or cost more. **Mr. Bienerth** replied he had reached out to the City of Portland which had conducted a study for their new plant evaluating onsite generation and storage and found that 18 years was the break-even point. Portland decided on onsite generation to appease the neighbors who had concerns about transporting bleach through country roads.

6.2 Proposed Agreement Next Steps

Ms. Rooney reported staff still had some work to do on the draft agreement. Lake Oswego had returned review comments to Tigard recently. Staff from both cities, including City Managers and City Attorneys, would meet and the goal would be to bring a draft back to the committee by or before the next meeting. She noted it had been difficult because both cities were experiencing personnel/resource issues. **Councilor Newton** clarified it was possible there could be a separate meeting to discuss the agreement before the next regularly scheduled meeting but definitely would have something by the April meeting. **Ms. Rooney** affirmed.

7. FUTURE AGENDA ITEMS

7.1 Summer water forecast

7.2 - Backup power supply

7. ADJOURN

There being no further business **Councilor Manz** adjourned the meeting at 6:43 p.m.

Respectfully Submitted,

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Susie Anderson
Administrative Assistant

Approved by the Oversight Committee:

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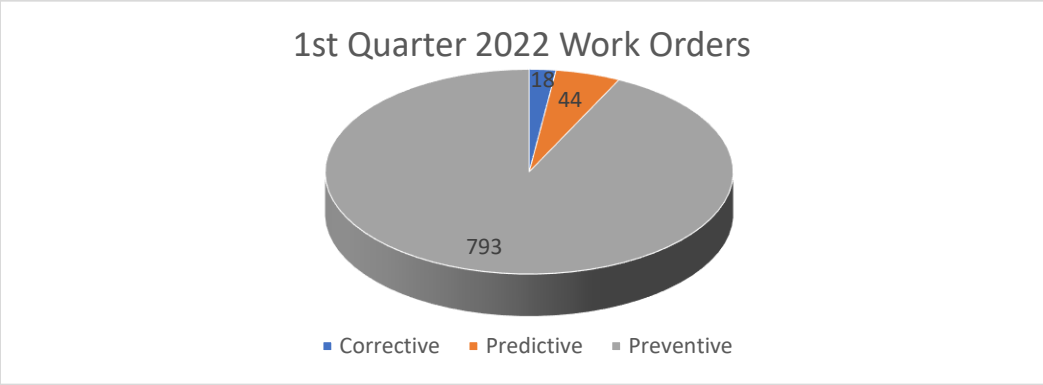
4.1 Lake Oswego Tigard Operations Committee Report April 11, 2022

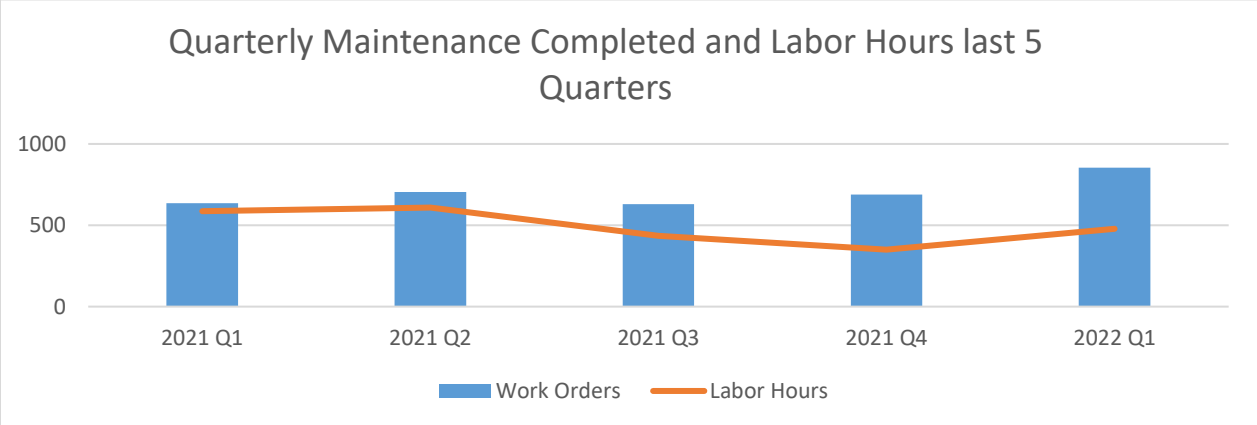
Customer Inquiries:

In the last quarter Lake Oswego received 7 water quality calls while Tigard received 1. Tigard's call concerned a chlorine taste that was resolved by flushing the pipe supplying the customer's home. Lake Oswego's calls ranged from a couple of complaints about dirty colored water caused by nearby main line breaks or construction to a request for coliform and ecoli sampling because of sick cats. The coliform test came back negative. Not sure how the cats are doing. Lake Oswego also had one call concerning a pH reading of 5 which is very low. It turned out that the test strips the customer used were old and our equipment showed a pH of 7.7 which is typical of the pH of our distribution systems.

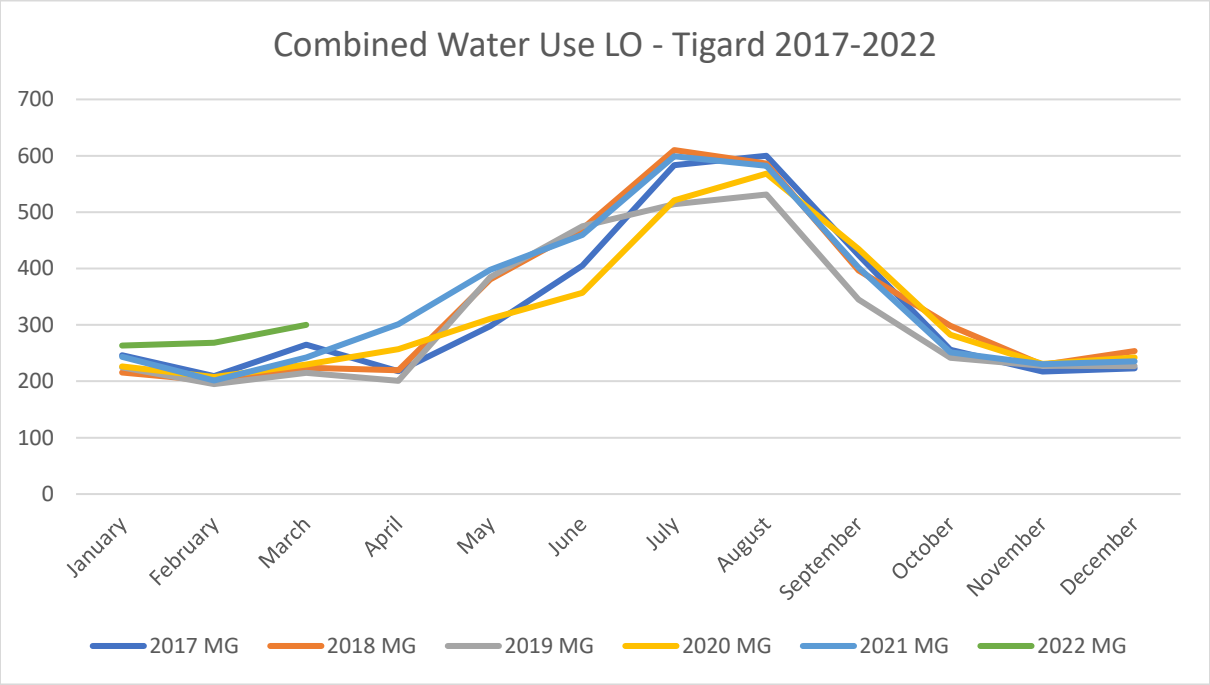
Asset Management:

In the first quarter of 2022 855 work orders were completed. Of these work orders 837 or 97.8% were either preventive or predictive maintenance.

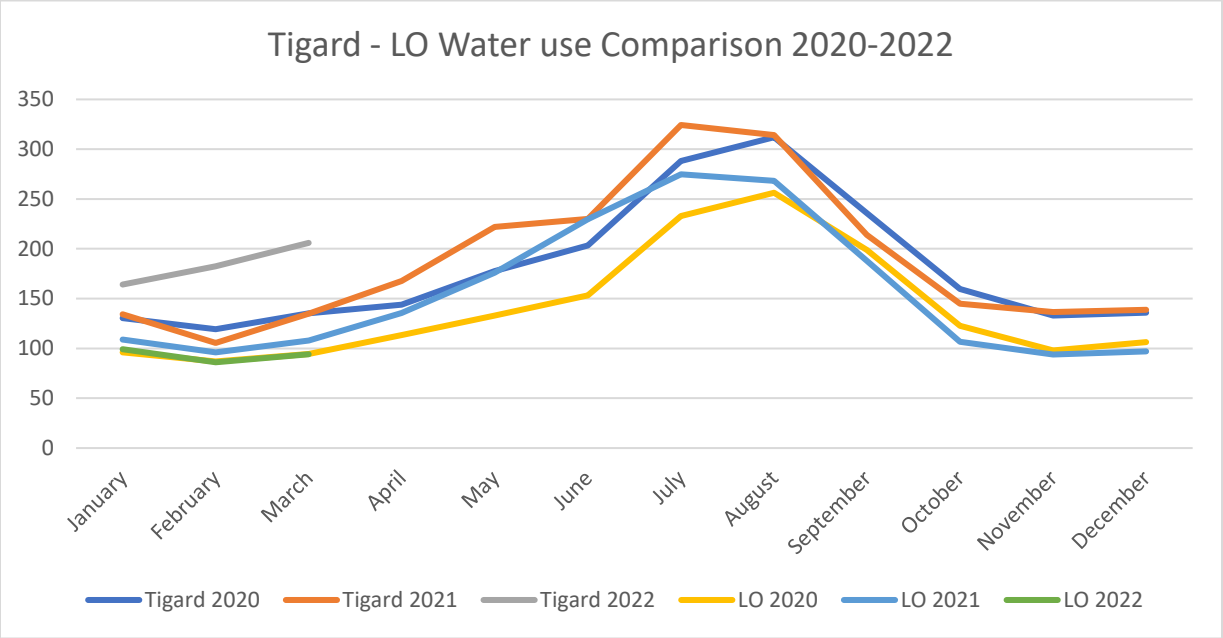




Water Production:



	2017	2018	2019	2020	2021	2022
	MG	MG	MG	MG	MG	MG
January	246.29	215.48	224.67	226.22	243.2	263.39
February	209.22	200.64	195.05	207.56	201.45	268.47
March	264.89	224.11	214.81	229.5	242.25	300.1
April	217.89	219.48	200.59	257.18	301.3	
May	297.61	380.95	384.53	310.9	397.79	
June	404.92	470.34	475.12	356.79	459.46	
July	583.25	610.08	514.3	520.99	599.1	
August	599.96	586.21	531.28	568.27	582.5	
September	423.64	396.81	344.97	434.74	401.97	
October	255.93	298.68	241.78	282.56	251.43	
November	217.13	229.2	227.39	231.16	230.36	
December	223.22	253.76	226.66	242.39	235.68	
Total	3943.95	4085.74	3781.15	3868.26	4146.49	831.96



	Tigard 2020	Tigard 2021	Tigard 2022	LO 2020	LO 2021	LO 2022
January	130.47	134.34	164.15	96.03	108.86	99.23
February	119.305	105.53	182.363	86.94	95.92	86.11
March	135.12	134.862	205.948	94.381	107.93	94.15
April	143.88	167.751		113.302	135.55	
May	177.78	221.838		133.124	175.95	
June	203.51	229.862		153.282	229.6	
July	288.01	324.288		232.975	274.81	
August	311.998	314.307		256.27	268.19	
September	235.925	214.105		198.82	187.86	
October	159.723	144.76		122.84	106.67	
November	133.111	136.4756		98.05	93.89	
December	136.054	138.668		106.34	97.01	
	2174.886	2266.7866	552.461	1692.354	1882.24	279.49

Personel:

We hired Jason Hoye as a new Operator. Jason joins us from Lake Oswego's Wastewater crew. He comes with operator certification and was a classmate of one of our existing operators in Clackamas Community College's Water and Environmental Technology program.

We feel fortunate in that we had numerous qualified candidates and were able to select the best fit for our plant.

Major Projects:

RIPS Pump #4 failed suddenly in early December. We contracted with the pump's manufacturer, Flowserve, to transport and repair the pump.

Pump #4 being lifted out of the River Intake Pump Station.

Our Maintenance Tech, Nick Lujan, after cutting off the discharge flange. This was needed to enable the pump column to fit through the motor base plate in the ceiling of this level of the RIPS.

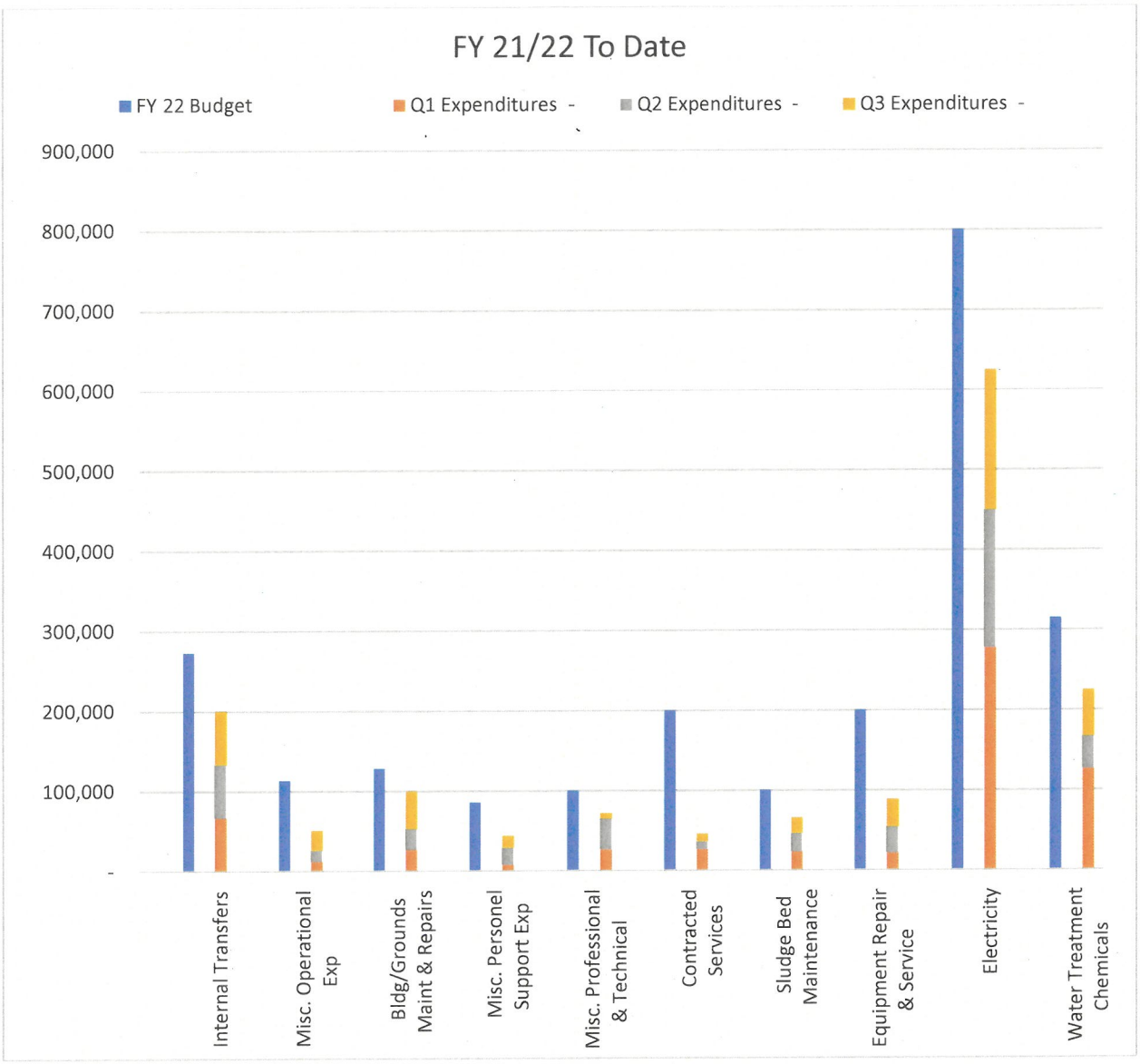
Basket at bottom of pump column passing through the base plate on it's way up and out.

Pump Column suspended under the lifting crane.

A second crane was used to lift the base of the pump column so that the entire assembly could be transported on a flatbed trailer.

Pump shafts that run down the middle of the pump column. They transfer the motor's rotation to the impellers on the bottom of the column.

Broken coupling that caused all the problems.


FY 21/22 To Date
FY 22 Budget
Q1 Expenditures -
Q2 Expenditures -
Q3 Expenditures -
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
-
Internal Transfers
Misc. Operational Exp
Bldg/Grounds Maint & Repairs
Misc. Personel Support Exp
Misc. Professional & Technical
Contracted Services
Sludge Bed Maintenance
Equipment Repair & Service
Electricity
Water Treatment Chemicals

CITY OF LAKE OSWEGO

Revenue and Expense - Biennium
Account Summary

For Biennium 2019-2021 Period Ending: 03/31/2022

		Current Total Budget	Period Activity	Biennium Activity	Budget Remaining	Percent Remaining
610 - WATER FUND						
Revenue						
610-611-310910-0000	Sundry Income	100,000.00	20,743.96	90,794.72	9,205.28	9.21 %
	Revenue Total:	**100,000.00**	**20,743.96**	**90,794.72**	**9,205.28**	**9.21 %**
Expense						
610-611-411100-0000	Full-Time Salaries and Wages	2,112,000.00	0.00	0.00	2,112,000.00	100.00 %
610-611-411110-0000	Full-Time Regular Salaries	0.00	69,955.64	573,284.05	-573,284.05	0.00 %
610-611-411120-0000	Full-Time Other Paid Leave	0.00	1,871.28	14,743.34	-14,743.34	0.00 %
610-611-411122-0000	Full-Time Vacation Leave	0.00	2,520.60	40,235.94	-40,235.94	0.00 %
610-611-411125-0000	Full-Time Comp Leave	0.00	157.64	22,793.02	-22,793.02	0.00 %
610-611-411130-0000	Full-Time Sick Leave	0.00	1,299.30	29,088.35	-29,088.35	0.00 %
610-611-411240-0000	Temporary / OnCall	9,000.00	0.00	9,866.68	-866.68	-9.63 %
610-611-411300-0000	Overtime Salaries	43,000.00	96.24	15,214.51	27,785.49	64.62 %
610-611-411400-0000	Special Pay	66,000.00	2,256.12	18,731.64	47,268.36	71.62 %
610-611-411430-0000	Shift Differential Pay	0.00	348.39	4,081.50	-4,081.50	0.00 %
610-611-411435-0000	Accrued Vacation Payoff	10,000.00	0.00	9,825.81	174.19	1.74 %
610-611-411450-0000	Holiday Pay	0.00	954.26	7,458.84	-7,458.84	0.00 %
610-611-412100-0000	Payroll Taxes	189,000.00	6,533.76	61,418.84	127,581.16	67.50 %
610-611-412200-0000	PERS	674,000.00	21,117.32	206,190.54	467,809.46	69.41 %
610-611-412300-0000	Health Insurance	496,000.00	19,279.93	163,142.97	332,857.03	67.11 %
610-611-412400-0000	Other Benefits	80,000.00	2,416.89	21,788.18	58,211.82	72.76 %
610-611-421000-0000	General Office Supplies	6,000.00	0.00	636.41	5,363.59	89.39 %
610-611-422300-0000	Postage	4,000.00	500.00	1,658.07	2,341.93	58.55 %
610-611-427150-0000	Safety Equipment	4,000.00	0.00	666.81	3,333.19	83.33 %
610-611-427200-0000	Clothing Allowance	10,000.00	454.14	3,449.36	6,550.64	65.51 %
610-611-427300-0000	Laundry Service	6,000.00	145.46	2,140.25	3,859.75	64.33 %
610-611-428000-0000	Small Tools and Supplies	11,000.00	0.00	2,871.22	8,128.78	73.90 %
610-611-429500-0000	Misc Furnishings & Equipment	14,000.00	0.00	3,198.41	10,801.59	77.15 %
610-611-429700-0000	Publications and Reports	4,000.00	0.00	521.70	3,478.30	86.96 %
610-611-431000-0000	Misc Professional & Technical	200,000.00	5,561.88	71,571.85	128,428.15	64.21 %
610-611-431540-0000	Software, Purchases & Licenses	60,000.00	8,142.82	26,082.82	33,917.18	56.53 %
610-611-431910-0000	Laboratory Services	20,000.00	1,765.00	8,204.50	11,795.50	58.98 %
610-611-431932-0000	Contracted Services	400,000.00	6,556.52	45,656.57	354,343.43	88.59 %
610-611-431937-0000	Vehicle Contract Service Fee	0.00	0.00	175.00	-175.00	0.00 %
610-611-432110-0000	Technical Seminars, Training	30,000.00	0.00	799.95	29,200.05	97.33 %
610-611-432300-0000	Membership Dues	10,000.00	1,400.00	3,790.99	6,209.01	62.09 %
610-611-434400-0000	Purchased Water	105,000.00	4,426.30	19,346.82	85,653.18	81.57 %
610-611-435230-0000	Telemetry Communication Charge	12,000.00	0.00	0.00	12,000.00	100.00 %
610-611-435240-0000	Miscellaneous Communication	33,000.00	0.00	4,117.87	28,882.13	87.52 %
610-611-437110-0000	Landscape Maintenance Contract	130,000.00	7,686.56	29,876.04	100,123.96	77.02 %
610-611-437230-0000	Janitorial and Cleaning Spply	10,000.00	0.00	1,807.23	8,192.77	81.93 %
610-611-437260-0000	Sludge Beds Maintenance	200,000.00	6,366.20	65,613.27	134,386.73	67.19 %
610-611-437280-0000	Bldg Maint-Misc Contracted Svc	100,000.00	16,764.30	64,232.38	35,767.62	35.77 %
610-611-437290-0000	Bldg Maint-Misc Materials	10,000.00	384.99	1,569.23	8,430.77	84.31 %
610-611-437310-0000	Equipment Repair and Service	400,000.00	19,014.50	88,324.63	311,675.37	77.92 %
610-611-437330-0000	Vehicle Repairs, Parts & Supp	10,000.00	0.00	213.52	9,786.48	97.86 %
610-611-437340-0000	Gasoline, Oil and Lubricants	4,000.00	0.00	961.71	3,038.29	75.96 %
610-611-437410-0000	Electricity	1,600,000.00	122,627.63	625,127.18	974,872.82	60.93 %
610-611-437420-0000	Natural Gas and Propane	50,000.00	6,168.67	15,845.49	34,154.51	68.31 %
610-611-437585-0000	Water Treatment Chemicals	630,000.00	30,694.05	224,572.04	405,427.96	64.35 %
610-611-438110-0000	Internal Fees for Service - Admin	516,000.00	21,000.00	189,000.00	327,000.00	63.37 %
610-611-438673-0000	Internal Fees for Service - MP	2,000.00	83.00	751.00	1,249.00	62.45 %
610-611-438674-0000	Internal Fees for Service - Beautific	28,000.00	1,167.00	10,499.00	17,501.00	62.50 %

		Current Total Budget	Period Activity	Biennium Activity	Budget Remaining	Percent Remaining
610-611-439900-0000	Other Miscellaneous Exp	10,000.00	0.00	1,559.39	8,440.61	84.41 %
610-611-481310-0000	Rehabilitation/Replacemt Dev	0.00	2,858.31	123,578.53	-123,578.53	0.00 %
	Expense Total:	**8,308,000.00**	**392,574.70**	**2,836,283.45**	**5,471,716.55**	**65.86 %**
	610 Total:	**8,208,000.00**	**371,830.74**	**2,745,488.73**	**5,462,511.27**	**66.55 %**
	(Surplus) Deficit:	**8,208,000.00**	**371,830.74**	**2,745,488.73**	**5,462,511.27**	**66.55 %**

Group Summary

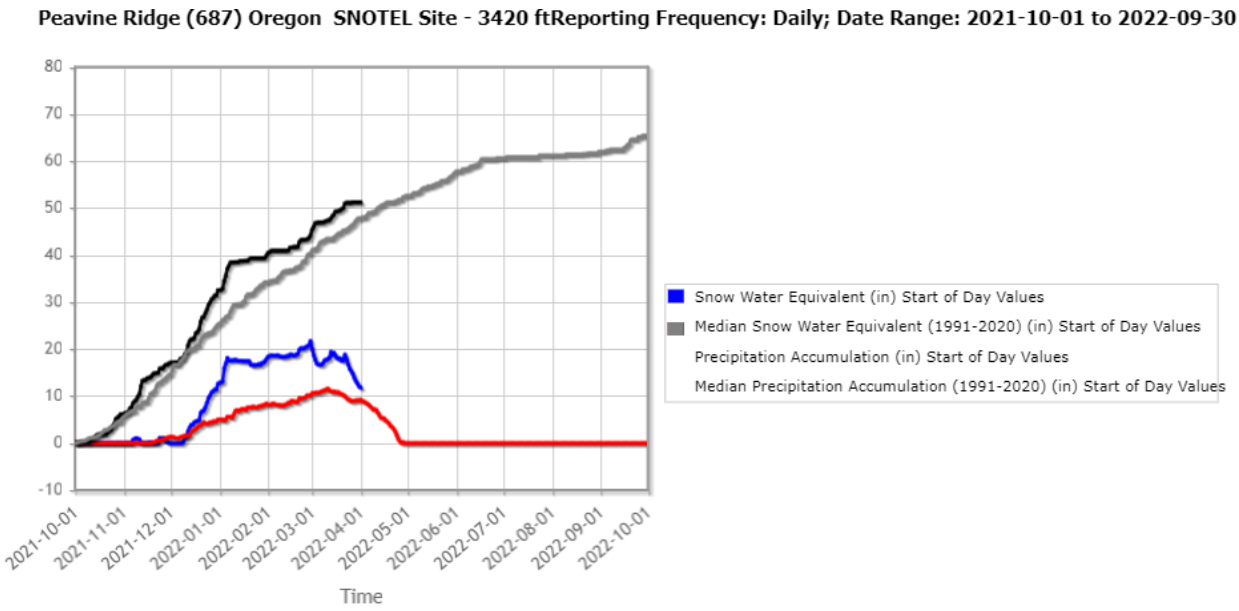
Account Type	Current Total Budget	Period Activity	Biennium Activity	Budget Remaining	Percent Remaining
610 - WATER FUND					
Revenue	100,000.00	20,743.96	90,794.72	9,205.28	9.21 %
Expense	8,308,000.00	392,574.70	2,836,283.45	5,471,716.55	65.86 %
610 Total:	**8,208,000.00**	**371,830.74**	**2,745,488.73**	**5,462,511.27**	**66.55 %**
(Surplus) Deficit:	**8,208,000.00**	**371,830.74**	**2,745,488.73**	**5,462,511.27**	**66.55 %**

Fund Summary

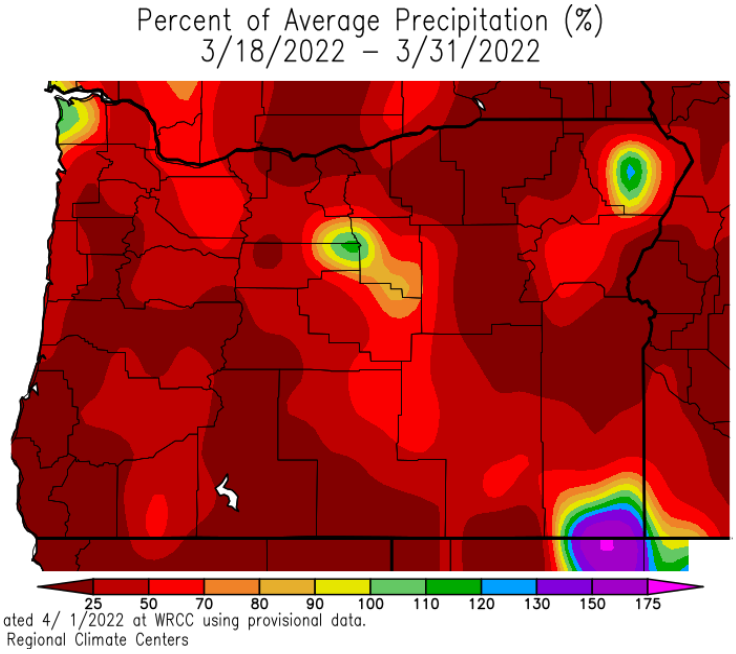
Fund	Current Total Budget	Period Activity	Biennium Activity	Budget Remaining	Percent Remaining
610 - WATER FUND	8,208,000.00	371,830.74	2,745,488.73	5,462,511.27	66.55 %
(Surplus) Deficit:	**8,208,000.00**	**371,830.74**	**2,745,488.73**	**5,462,511.27**	**66.55 %**

Climate Outlook LO/Tigard: Spring / Early Summer 2022

Current snow pack conditions in the supply area for the Clackamas River are consistent with normal and in some areas slightly above. However, with minimal increases in snow pack for February (20th driest on record) and March and the climate effects associated with La Niña, the current trend of above average temperatures is predicted to continue.



Precipitation for The Clackamas Basin is sub-normal and long-term precipitation deficits (2014-2021) continue to accumulate. Currently we are about 5.7” below historic normal for this time of year.



Stream flows are about what we would expect considering current conditions during the spring to summer transition.

USGS **14208700** OAK GROVE FORK NEAR GOVERNMENT CAMP, OR

Drainage area:	54.4 mi^2
Discharge:	70.98 cfs
Date:	2022-03-31
No. of days:	28
Percentile:	20.47 %
Length of Record:	63 years
Class symbol:	
% normal (median):	47.03 %
% normal (mean):	45.31 %

USGS 14209500 CLACKAMAS RIVER ABOVE THREE LYNX CREEK, OR

Drainage area:	479 mi^2
Discharge:	2596.79cfs
Date:	2022-03-31
No. of days:	28
Percentile:	63.15 %
Length of Record:	10years
Class symbol:	
% normal (median):	111.76%
% normal (mean):	101.82

USGS 14211010 CLACKAMAS RIVER NEAR OREGON CITY, OR

Drainage area:	940 mi^2
Discharge:	5041.43 cfs
Date:	2022-03-31
No. of days:	28
Length of Record:	18 years
Class symbol:	
% normal (median):	114.92 %
% normal (mean):	96.44 %

Overall drought conditions for the area remain static, with about 50% of the county abnormally dry and the other neutral. Both the Oregon Drought Monitor and the Palmer Drought Severity Index graphic below support this assessment.

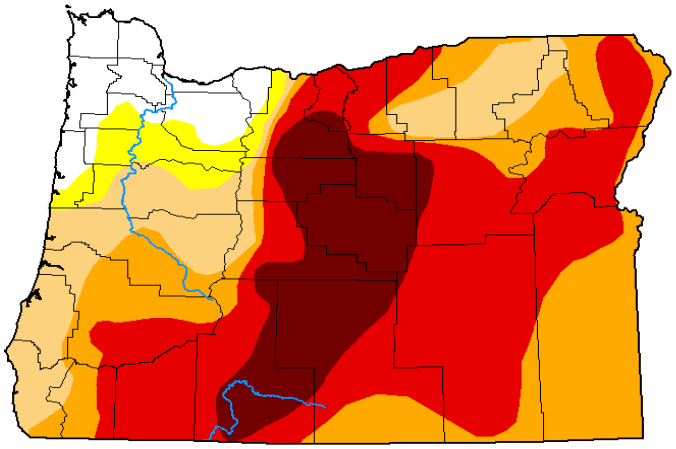
U.S. Drought Monitor

Oregon

March 29, 2022

(Released Thursday, Mar. 31, 2022)

Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:

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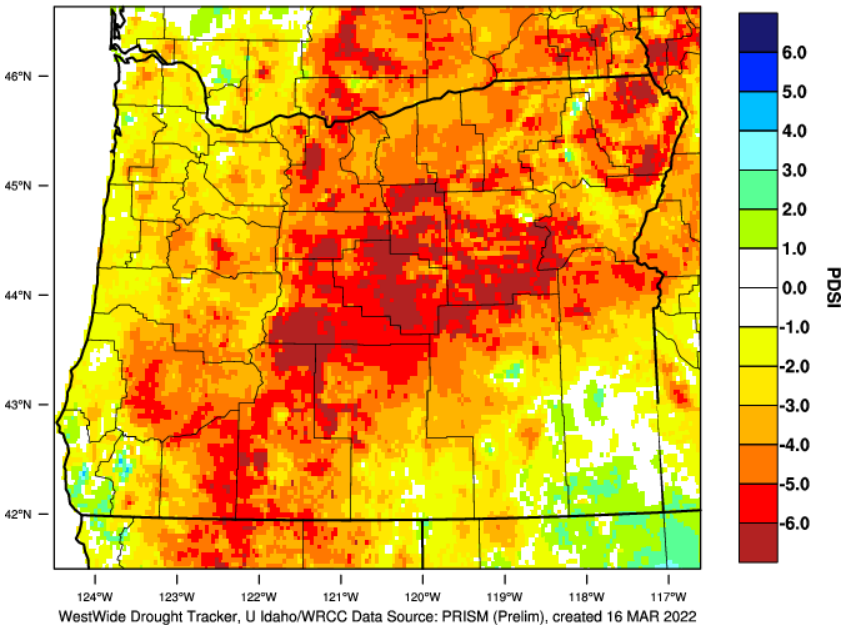
National Drought Mitigation Center

droughtmonitor.unl.edu

Oregon - PDSI

February 2022



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAR 2022

Assessment/Summary

Currently the Clackamas Basin is experiencing the transition from winter norms to summer norms. So far, by most indications, the basin is in a fair position for expecting reasonably adequate stream flows for the upcoming summer water use season. Should this transition period remain cooler and wetter farther into the spring, the likelihood is that the drought conditions for our region may begin to subside. That said, should conditions in the mountains remain in a period of abnormally warm and dry days, as has been the case for February and March, we will likely have another extremely challenging water year. Which way it will go will become evident in the next two months. If La Niña remains in place into the summer, as was the case last year, the drier predictions are more likely. If we get significant late season snows, that may significantly improve the outlook. April and May will be the big indicators for summer supply.