



Public Works Department

117 N Molalla Avenue

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Phone: (503) 829-6855

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July 28, 2021

TO: Dan Huff, City Manager

FROM: Gerald Fisher, Public Works Director

CC: Christie DeSantis, City Recorder

RE: Project Update for Public Works

The following is a list of public and private projects currently underway or in process.

Administrative Projects Underway

1. Municipal Code Update – Staff continuing to work on rewrite of MMC chapters related to Public Works as time allows.
2. ODOT ADA Ramp Replacements – Construction underway. Anticipate completion by summer 2022.
3. Septic System Decommissioning – Enforcement notifications will be sent out to the six properties giving them 90 days to correct and pay all fees, in accordance with MMC 13.08.270. Deadline is 08/23/21.

Public Capital Projects Underway

4. 17-04 OR 211 Bike & Ped Pathway – Construction work is underway and expected to be complete by fall 2021.
5. 18-08 Hwy 213 & Hwy 211 Safety Improvements – ODOT to install safety signage later this year.
6. 18-08 Hwy 213-Toliver Roundabout – Anticipate preliminary plans in Fall 2021, advanced plans in Spring 2022, final plans in Summer 2022, bid packet ready by Winter 2022. Project construction still tentatively scheduled for Spring 2023 so as not to conflict with roadway improvements in front of Tractor Supply.
7. 18-11 Trout Creek Water Right Transfer – Water right transfer approved by Oregon Water Resources. Final copy of water right received by staff. Project is completed.
8. 19-05 Consent Decree Compliance Reporting – The 2nd quarter report was held on 06/02/21.
9. 19-07 MFR Ped Bridge (P42) – Bridge beams set on 07/27/21. Construction completion tentatively scheduled for the middle of August.
10. 19-09 OR 211-Molalla Ave Signal – Waiting for contractor to begin construction. No schedule or estimate of completion date available.

11. 19-10 WWTP Upgrade – Anticipate Pre-Design report to DEQ in late Fall 2021 followed by final design, DEQ approval, and bidding through Spring 2023. Construction anticipated to start in Spring 2023.
12. 20-04 Shops/Elementary School & WWTP Waterline – Project bid opening held on 07/20/21. City Council award scheduled for 08/11/21.
13. 20-05 Clark Park Ph 4 – Preconstruction meeting to be held on 07/30/21 and construction to begin early August.
14. 18-14 Decant Facility – Project in design. Anticipate construction in Spring 2022.
15. 20-03 Phase 1 Project 4 Eckerd Ave Sewer and Water Reconstruction – Staff requested scope of work from engineer for project design.
16. 21-02 Molalla Forest Road Park – Design of roadway connection between Toliver Road, pedestrian bridge, and west end of Bear Creek Subdivision underway. Park portion of project on hold. Parks Committee to be convened and will wait for decisions to be made about park improvements.
17. 21-03 Water SDC/Rate Study – Consultant is working on SDC and rate study report for the water system.
18. 21-06 Scandia Waterline – This project will replace a steel waterline through the old Avison mill property on the north side of W. Main Street. Staff requested scope of work from engineer for project design.
19. 21-07 2022 Street Maintenance – Staff developing a \$250K project to perform slurry sealing on select streets during the summer of 2022. This will be a one-time maintenance activity until a stable funding source for street maintenance is created. This project is paid for with gas tax and vehicle registration fees built up over the past several years.

Public Capital Projects Not Started

20. 20-07 Creamery Creek Park – Project on hold. Parks Committee to be convened and will wait for decisions to be made about park improvements.

Private Projects Underway

21. 17-20 Sawyer's Truck Repair – In discussion with developer for compliance with development requirements.
22. 19-04 Cascade Center – Developer working to complete all land use approval conditions of development including improvements to Leroy Avenue (north and south), onsite public improvements, onsite storm facilities, and ODOT improvements for the frontage. No Certificates of Occupancy can be granted until the developer has met all their conditions.
23. 19-13 Dollar General – Permit issued and construction underway.
24. 20-01 Colima Apartments – Anticipate completion of project Fall 2021.

Attached at the end of this memo is an update from Operations. Thank you and let me know if you have any questions.



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July 17th, 2021

TO: Gerald Fisher, Public Works Director
FROM: Andy Peters, Operations Supervisor

RE: Operations Update for City Council

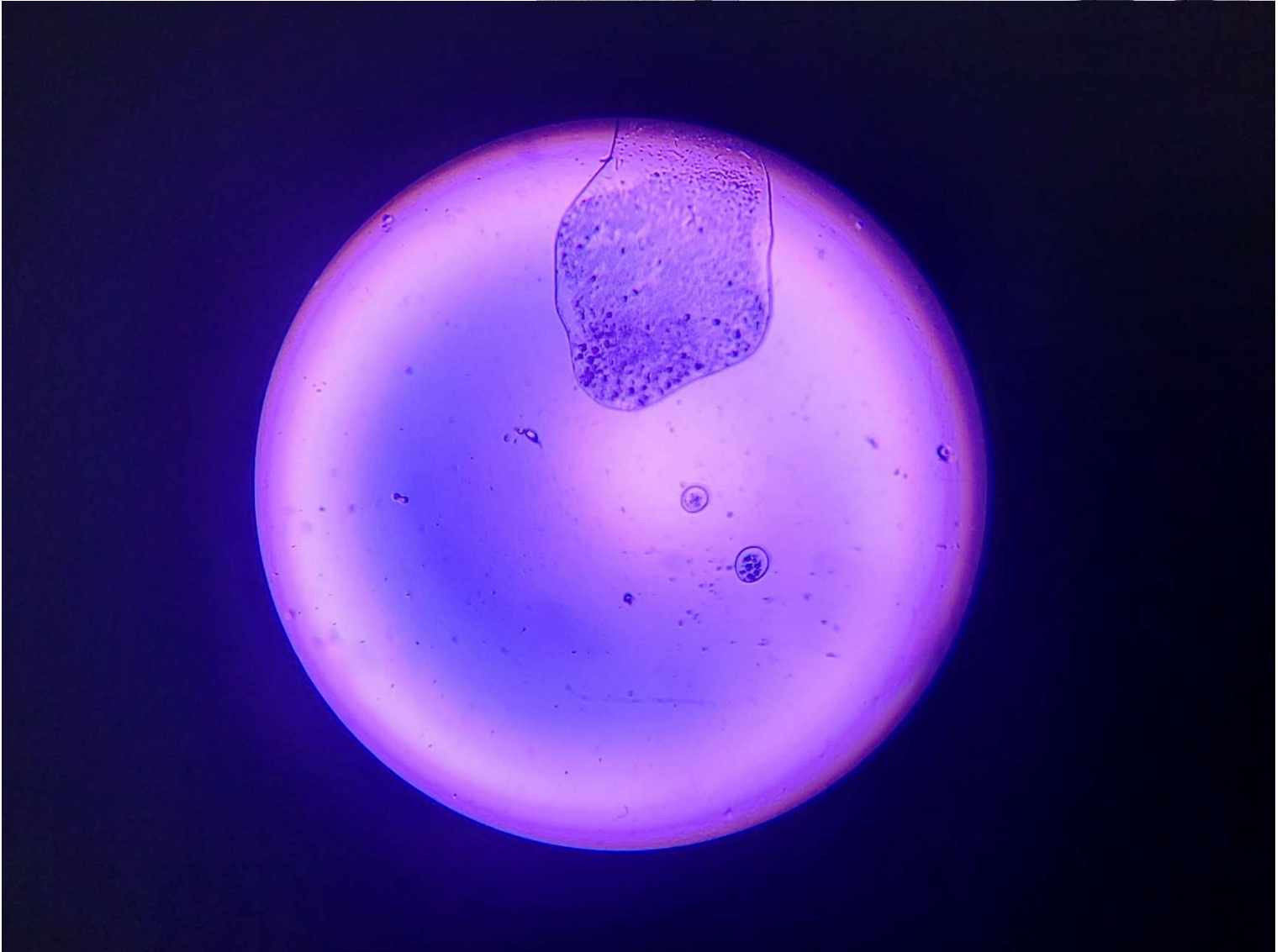
Gerald,

Attached is our Operations update, covering the period June 18th, 2021 – July 17th, 2021.

Respectfully,

Andy Peters
Operations Supervisor
City of Molalla

This month the City welcomed a new employee, Wastewater Treatment Plant Operator Mitch Jaspers. Shown here (Right) Mr. Jaspers introduces himself to some of the other important “employees” at the plant: Nitrobacter Bacterium. Most of the black dots in the microscope view below, which Mr. Jaspers is inspecting, are this species of important bacteria. They work for the plant by breaking down Ammonia in the water into forms of harmless Nitrogen. The larger organism that can be seen is a resident Amoeba.



City crews inspected a mysterious pond that appeared near the Wastewater Treatment Plant's Effluent line out by S. Molalla Forest Road during the month. After testing, the City determined that this pond does not consist of leaking effluent. But we had to be sure. Right, Senior Utility Employee Rich Landreth checks the pond to see if it has residual Chlorine, which we would expect to find if it were effluent. Below, a leak detector listens in and around the pond, and in either direction along the pipeline. No leaks were found.





Left, Utility Lead Employee Adam Shultz turns the splash pad at fox park on for testing. Water Curtailment is difficult for everyone, so Public Works measured the flows through the splash pad to see precisely how much water it uses. The intent was to help policy makers to be as informed as possible when deciding whether curtailment meant the pad needed to be turned off for the summer. The splash pad does not have a water recycling system, so all water flowing through it is wasted down the storm drains. The final tests showed it uses a minimum of 50,000 gallons per day.

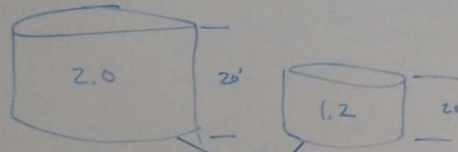
Also as part of water Curtailment the Water Treatment Plant Operators began performing an additional round of flow meter calibration, and manual cross-checks, to ensure everything is functioning properly. Shown right, Lead Operator Ryan Hepler reads the plant's totalizing flow meter manually in order to compare the meter's reported flow to the flows being recorded in the plant's computer control systems (SCADA). These kinds of checks are necessary to ensure no mistakes have made their way into the software systems which are constantly being updated, modified, and improved over time.





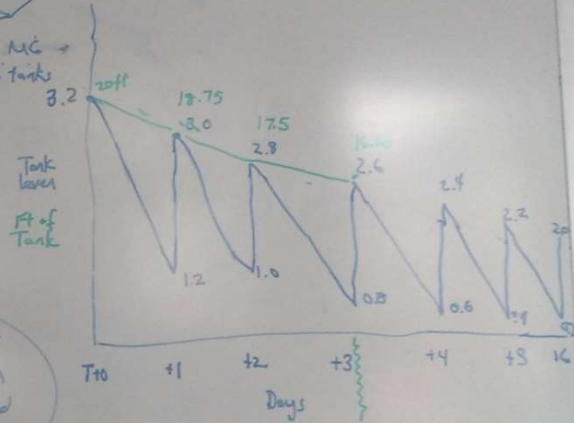
Above, a photo of the City's Drinking Water Intake is shown, taken by the Operations Supervisor on 7/26/21 at about 4pm. The flows being seen now are usually not seen until mid-August. At this time the City is able to find and treat enough water to supply demand, but every bit customers save reduces the likelihood of the City being forced into higher alert stages. Each day the City's two water reservoirs drain and refill in a "saw toothed" pattern (see hand drawn graph, next page) – during the day the town uses water and drinks the tanks down, then during the evening the plant catches up and refills the tanks. If we find ourselves in a situation where more water is being used than the plant or river can produce (for *whatever* reason) then the tanks are not able to fill back up all the way each night. Depending on how fast this is happening, we would see the tanks get less and less full – until they finally run out. Operators are constantly looking ahead to see what kinds of risk scenarios exist. The math shown in the photo (next page) is an example of one simulation of essentially a worst-case scenario: if we imagine a situation where the town is drinking 2.0 million gallons per day (mgd), and the plant is forced to operate on only one of its two Trident Filters (which would be 1.7 mgd), then the tanks would run dry in six days.

This scenario is not expected, but it *does* show that under most conditions, even bad conditions, the City will have *some* reaction time available. But not much – possibly as little as a week.



Given: Demand 2.0 MGD
 one filter dies
 Now Generating 2.0 MGD
 Assume 0.2 backwash

FIND: How long till tanks Empty
 How long till tanks hit 17 ft.



SOLUTION: in order to trigger water curtailment
 we would need: 1 filter broken
 ≥ 2.0 MGD Demand
 for 6 days.

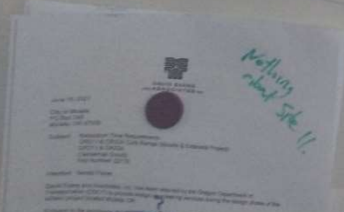
Historical Event: 2017ish, River at carby hit
 20 cfs and we were still able
 to get enough water into
 screens.

15 10-76
 MGD

That's drinking 2 MGD
 of the 10.76 MGD

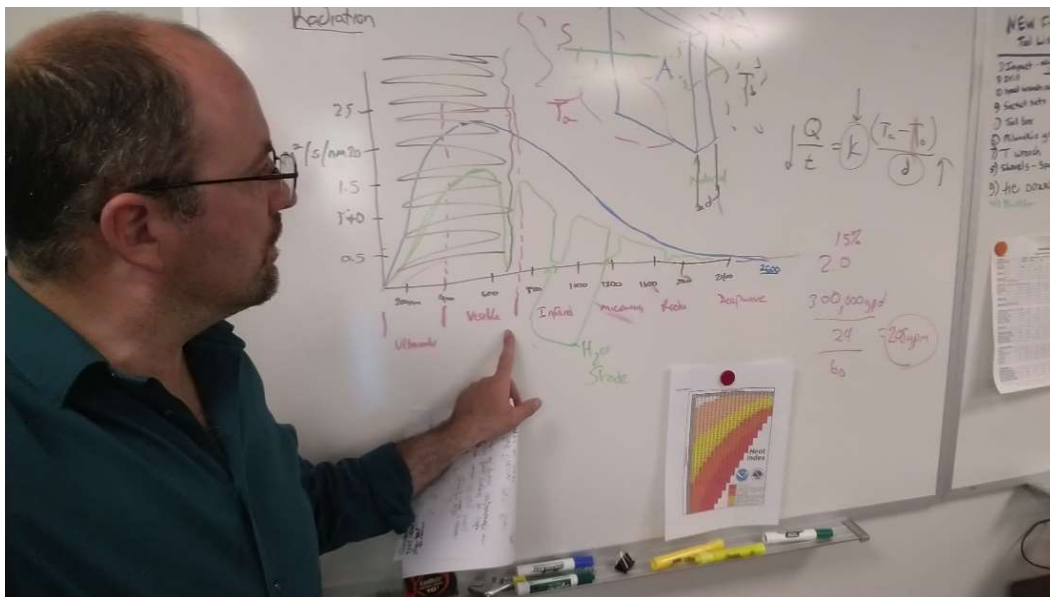
running in to
 CT issues,
 but still be okay
 would make up
 with extra chlorine

Nothing
 about Site !!





Above, Clackamas County Inmate Crews have been helping the City out doing basic edge trimming around Storm Swales. This is part of standard annual maintenance on the swale systems. Below, an emergency rule from OR-OSHA was issued during the month requiring employers to protect employees from heat exhaustion on the job site, and to train them in some basic safety measures. The advice from Osha was: drink water, take breaks in the shade, and watch for the signs of heat stress. Below, the Operations Supervisor runs the crews through this training, and included some important information on exactly *how* heat transfers on a physical level, including how much heat the body receives from the Sun VS the open air. An informed crew is a safe crew.





Left, City Utility Crews repair a service line that was struck by HP Civil, the ODOT Contractor working on Hwy 211. On 7/28/21 this same contractor struck a gas service line forcing the closure of Highway 211 for six hours. The City placed detours and City Police Dept controlled traffic on the ODOT highway throughout this period, as the HP Civil flaggers were forced off the site, and ODOT emergency Response Teams were unable to respond. Below, Wastewater Plant Operators patch a leak on an irrigation line in the Coleman Ranch fields. Cows and Mud are major factor for City Crews involved in irrigating our effluent – the work is essentially farming.



Metrics for this period follow.

Work Complete During Period

6/18/2021 - 7/17/2021

Work Orders Completed (by Fund)

Water	105
Sewer	63
Storm	4
Street	35
Fleet	11
General_parks_facilities_ect	64
SplitFund_locates_etc	14
Capital	0
Other	32

TOTAL	328

Work Orders Completed (by Team)

Utility_Crew	208
Wastewater_Plant	47
Water_Plant	63
Supervisor	10
Corrective_Action	0
Deep_Backlog	0
Code_Enforcement_Complaint	0

TOTAL	328

Work In Process

Current Load by Team

Team	Backlog (# of WOs)	Promise Date Performance
Utility Crew	49	99.54%
Wastewater Plant	37	97.47%
Water Plant	34	96.11%
Supervisor	60	96.10%

Current Financial Encumbrances (OpenApproved POs by fund) for Operations

Fund	Account#	\$\$
Sewer Fund	106-601-5-*	\$138161.42
Water Fund	105-501-5-*	\$81442.48
Storm Fund	108-801-5-*	\$6900
Park Fund	101-106-5-*	\$25953.84
Street Fund	104-401-5-*	\$27301.02

TOTAL		\$279758.7600