WILSONVILLE PUBLIC WORKS

JUNE 2021 MONTHLY REPORT

From The Director's Office:

Raw Water Facility Project Update

Two significant construction milestones have been achieved by the Raw Water Facility project at the Willamette River Water Treatment plant (WRWTP).

First was the successful cutting and capping of the 42-inch raw water west header. The header pipe collects raw water from the caisson via pumps and sends it to the beginning of the treatment process at the WRWTP. This modification was needed to separate the WRWTP pumps from the future Willamette Water Supply Program (WWSP) pumps. Careful planning and close coordination between plant operators and contractor was needed as this work required a 10 1/2 hour shutdown of the WRWTP. The WRWTP is the primary source of drinking water for Wilsonville and Sherwood which required the development of multiple contingency plans to address potential construction challenges during the shutdown. Happily the work was completed ahead of schedule and passed all inspections.

Next was the completion of the trenchless crossing of Arrowhead Creek using a technique called pipe ramming. The project involved the contractor pushing a 84 inch diameter, 1 1/4 inch thick steel casing from a launch shaft to a receiving shaft through the ground under Arrowhead Creek bed. This work was complicated as the area is geologically challenging and had the potential of encountering unknown conditions including large boulders. Fortunately the work was successfully completed as planned.

Launch shaft on the left and receiving shaft on the right for the trenchless crossing of Arrowhead Creek

PUBLIC WORKS

FIRST RESPONDER

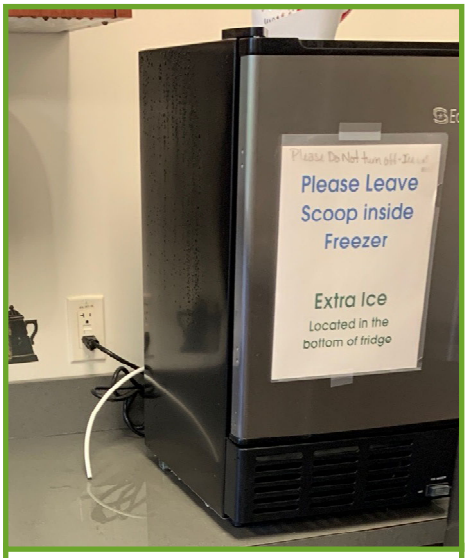
Best Regards,

Delora Kerber, Public Works Director

Facilities

Broken Line—Lots of Water

City Hall staff got a soggy 'welcome back' after a weekend of unprecedented high temperatures. The water line to the ice machine in the second floor breakroom ruptured sometime after employees left the building on Friday. Staff aren't certain exactly when this occurred but it was disconnected long enough to cause significant flooding, forcing City Hall to close for two days, June 28a nd 29.



The culprit!

Several departments mobilized upon discovering the leak. It was an "all hands on deck" response on Monday morning. Facilities received help from their Public Works colleagues, Parks Maintenance, Engineering, IT and even Finance in the initial phase.

Second floor—where it all began

Water flowed from the breakroom, saturating the walls, cabinetry and flooring. Staff used shop vacuums to suck up excess moisture before ripping out the carpets in the affected hallways, office spaces and lobby.

Daniel using the shop vac

Cordoned off work site

Facilities cont.

Computer server room— safe but just barely

Drying the hallways outside the restroom

Behind the Finance counter

Drying the lobby —the elevator stayed dry!

Facilities cont.

First floor—where it all came down

When staff arrived on Monday, it was immediately apparent that it would not be "business as usual" at City Hall. The water from the second floor came through the ceiling, saturating the tiles and causing them to collapse. After the air quality issues from the wildfires in Fall 2020, the City had extra fans on hand to help with circulating air to help dry areas.

Employee side entrance

Massive puddle at the front desk

First floor lobby—getting aired out

Facilities cont.

Come in, we're open!

It is hard to believe that something so small could be responsible for so much damage. Our staff responded quickly to the flooding emergency. Public Works, Parks, IT and Finance helped on Monday with drying and removing carpeting, and relocating workstations. IT ensured that the server room was secure and no hardware had been compromised. In spite of the high humidity and lack of air conditioning at City Hall, our staff worked hard until the temperatures stopped work. With Monday's record setting heat of 114 degrees, demolition work was halted during the hottest hours of the day.

On Tuesday, staff worked quickly to complete demolition on all the affected walls and furniture, while fans and dehumidifiers ran nonstop. Other employees spent the morning moving their workstations to a drier location and got back to serving the public

The City is open for business!

Industrial Pretreatment Program

Regulating, Sampling, Evaluating and Reporting

The City' s Industrial Pretreatment program aims to eliminate pollutants before they reach the wastewater treatment plant and subsequently the Willamette River. Mia Pan, Industrial Pretreatment Coordinator is responsible for regulating businesses and industries that release wastewater in their process to ensure their discharge meets local requirements and complies with the Clean Water Act. This protects water for its various purposes and eliminating as much pollutants as possible before entering the receiving water body. National Pollutant Discharge Elimination System (NPDES) permits are issued, limiting what can be discharged, and setting monitoring and reporting requirements. The industrial pretreatment program is a provision that ensures discharge does not hurt water quality or people's health.

One part of the pretreatment program involves issuing permits to 'significant' industries—those that produce more than 25,000 gallons per day or are in a categorical industry. These industries have limits, monitoring and reporting requirements, and other provisions, similar to the NPDES permit. Enforcing these permits requires facility inspections, water sampling, reviewing monitoring reports, drafting and revising permits, and the occasional violation procedure. Another part of the program is regulating food service establishments of fats, oils, and greases to prevent "fatbergs" from obstructing the City's sewer collections system.

Currently Mia is managing a project for the technically-based local limits evaluation, which is a requirement for the City's NPDES permit. Local limits are the wastewater pollutant levels that businesses and industries must meet to be in compliance with the City's environmental code. This requires extensive sampling to determine how our current local limits should be revised.

Fatberg prevention

Sampling in the field

Utilities—Water

Congratulations—Paul

The Water crew is happy to add a member to the team! Paul Walker has been promoted to a Water Technician position. Paul has worked for the City of Wilsonville for the last four years as Utilities Maintenance Specialist. He has developed a well-rounded skillset, having performed work in stormwater, sewer, and water. Prior to working for the City, Paul completed a Water Technology Program in Southern California and previously worked as a Wastewater treatment operator.

Paul Walker, Water Technician

Checking for Leaks

This month a leak detection survey was conducted by Utility Services Associates. Every year a survey is conducted to check approximately one fifth of the City in order to identify any active leaks. The leak detection survey is performed by a technician that utilizes specialized listening equipment to pick up the noise of a leak off of valves, meters, and hydrants. This year's survey was conducted in the in the Northeastern portion of the City. Fortunately, only a few small leaks were identified during the survey and have since been fixed by the water crew.

Twelve of the control valves in the distribution system were serviced this month by GC Systems. As a preventative maintenance practice, control valves are rebuilt every 5 years. The rebuild consist of a full disassembly and cleaning of the main valve and pilot controls. All rubber parts are replaced and the assembly is tested and put back into service.

Listening for a leak

Control valve maintenance

Utilities—Wastewater

Assisting the Engineering Division

The Wastewater crew continues to perform routine cleaning in the Old Town basin of the wastewater collection system. In addition to completing maintenance tasks, the crew helped out with some requests from the Engineering division. At the Memorial Park lift station, the crew ensured that an old force main was still functional. This allowed the contractor to utilize it while the active line was drained and tied into the new construction. After confirming the functionality of the old force main and valves, the contractor completed their work without issue.

Excavating the old force main pipe

Turning a valve

Temporary diversion of wastewater

Utilities—Wastewater cont.

Locating a Large Water Line with Small Potholes

The Wastewater crew also assisted with a bit of investigative work out at the Fifth to Kinsman project by performing potholing over the 63” water transmission line. After a line has been officially located, staff dig small holes around the line to the confirm the exact location in the ground. They also checked the condition of the transmission line where a future sewer line will be passing underneath.

Potholing to find the water line