

From The Director's Office:

Lighting the Way (Streets and Avenues)

On September 21, 2020, the City issued a contract for \$478,500 to Northstar Electrical Contractors to convert streetlights around town to new energy efficient Light Emitting Diode (LED) lighting fixtures. The good news is the awarded price was 5% less than the engineering estimates and the better news is work started in October.

Phase 1 of the streetlight conversion project focuses on converting 950 of the lights along Arterial and Collector class roadways. Representative arterial and collector roads in the City include: Wilsonville Road, Boeckman Road, Canyon Creek Road, and Parkway Avenue. Streetlights along these roads are typically referred to as "cobra-head" style lights.

In order to determine the appropriate conversion wattages for the lights, the designers created a photometric analysis of the affected roads. The analysis accounted for the height of the poles and spacing between poles and assumed these two variables are fixed. The engineer then applies the American National Standards (ANSI) and Illuminating Engineering Society (IES) standard to determine the best conversion wattage to achieve the lighting standard. Applying this standard achieves overall illuminance and better uniformity of the lighting. The average light conversion replaced 200 High Pressure Sodium (HPS) light to 72 Watt LED equivalent light. Using the ANSI and IES standards a few locations were identified where it was appropriate to convert a 200W HPS lights to a 34W LED thereby greatly reduce energy consumption while providing the proper lighting level.



Changing streetlight from HPS to LED

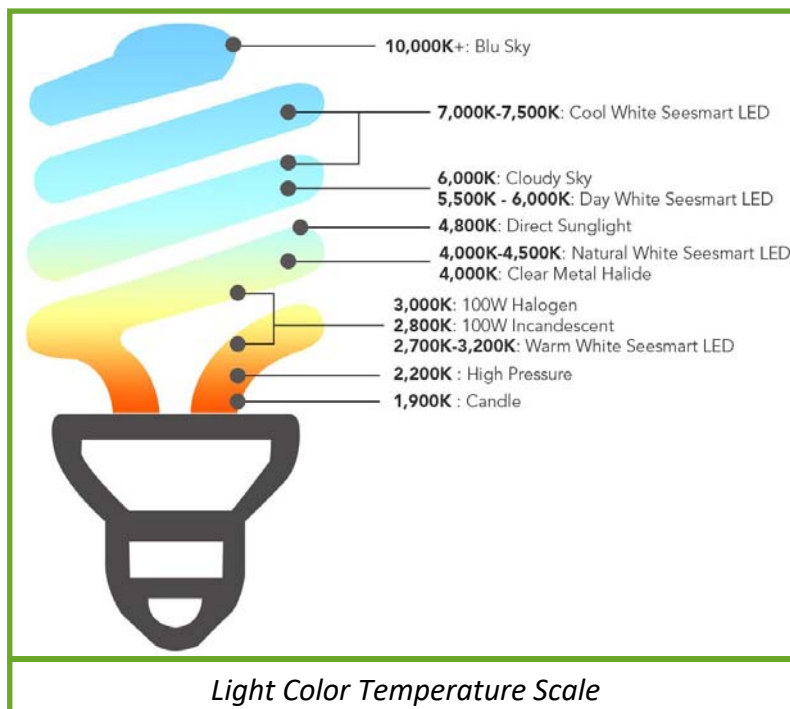
From the Director's Office, continued

In addition to being more efficient, LED lights provide better lighting quality for roadway illumination. Color temperature is a way to describe the light appearance provided by a light bulb and measured in degrees of Kelvin (K) on a scale from 1,000 to 10,000. Typically, Kelvin temperatures for commercial and residential lighting applications fall somewhere on a scale from 2000K to 6500K. The traditional HPS lights transmit a yellow or amber light in the lower 2000K range. The new LED lights transmit at 3000K providing less glare and better clarity.

Preliminary estimates indicate that the conversion project will reduce the City's energy consumption associated with these lights by an average 67%. In addition to the energy cost savings, the City also applied for and was awarded an Energy Trust of Oregon grant of \$65,812 to incentivize the conversion.

A unique aspect of this project is the requirement to have the contractor enter replacement light information into City's asset management software at the end of each work day which is then used the following day for inspection confirmation plus transition the maintenance billing category from high pressure sodium lights to LED lights in real time which is another costs savings to the City.

Phase 1 of the project, the arterial and collector lights conversion, is scheduled to be completed by mid-February of 2021. Phase 2 of the project will focus on residential or local roadway classifications and is scheduled to start in Fiscal Year 2022.



Best Regards,

Delora Kerber, Public Works Director

Roads

Sign Repair at the Barber Roundabout

The Roads Maintenance crew responded to a downed street sign in the roundabout at Barber Street and Brown Road. A driver failed to negotiate the roundabout, ran through the landscape bed, and hit the light pole and directional sign. The sign is on a 'breakaway' pole, designed to detach from the foundation on impact, reducing the likelihood of injury to occupants of the vehicle.

Damaged street light poles and street signs are a top priority for repairs, especially when located near a crosswalk. Visibility for both drivers and pedestrians is important for public safety. Staff responded immediately to check for debris or electrical hazards. A new directional sign was created and installed to ensure that travelers get to their destination.



Sign with 'break away' pole



Repaired sign

Day Road Pothole Patching

A high volume of commercial vehicle traffic contributes to potholes on Day Road. Potholes can happen quickly, even overnight, and require prompt repair. Filling holes in the street helps to avoid vehicle damage or accidents due to rough driving surfaces.

To complete a repair, Roads Maintenance will cone off the work area, rerouting traffic. An asphalt hot box trailer keeps the asphalt at a consistent temperature, so that it is ready to patch. Staff will open up the area around the pothole, chipping away and removing any loose debris, and then fill it with the hot asphalt. The patch is compacted and settled with a layer of sand which seals the new asphalt, restoring road surface integrity.



Sealed pothole

Roads

Barricade Repair on Canyon Creek Road

On Canyon Creek Road, across from Canyon Creek Park, a row of barricades blocks the end of a roadway prepared for a future addition. Each year, these barricades are damaged by large vehicles using the space as a turn around. Drivers misjudge the amount of room they have to negotiate their turn and collide with the barriers. The boards and reflective sheeting that cover them must be replaced.

These barricades serve an important purpose. They signal the end of the developed roadway, which ends in a field. The reflective striping makes them visible at night, preventing unsuspecting drivers from turning into the undeveloped property.



Severely damaged barricade



Restored barricade

Stormwater

Storm Swale Maintenance

Stormwater crew tackled weeds in the storm swales on Canyon Creek. Swales aren't just for looks— they serve an important role in filtering and managing water runoff. The crew uses an Integrated Vegetation Management (IVM) approach as well as spraying to manage aggressive or invasive plants. This month, the team removed cottonwood roots and sprouts which were starting to grow over the sidewalks and potentially limiting pedestrian right-of-way.



Cottonwood root

Root Extraction

Roots found in catch basins and storm lines are a consistent issue for the Stormwater crew. Using the Vacuum truck high pressure hose with a root cutting saw attachment on the end, staff insert the hose into the manhole and push through the line all the way to the obstructed catch basin. Staff cleaned over 50 feet storm line affected by root overgrowth. Removal restores flow of water, preventing flooding and preserving system integrity.



Roots in a catch basin



Root removal

Utilities—Water

Jerry Anderson Retiring

Public Works is saying farewell to its most senior member of the department. Water Tech Jerry Anderson is retiring after serving the City of Wilsonville for 25 years. Jerry experienced the booming growth of Wilsonville from approximately 11,000 residents to over 25,000. Having witnessed the majority of infrastructure being constructed within the city, Jerry has been the go-to person for institutional knowledge. His ability to recall details about a pipe or valve that was buried 20 years ago is astounding. We are sad to see Jerry go but we are so happy for him to ride his motorcycle off into the sunset and enjoy his well-deserved retirement.



Thanks for 25 years of service, Jerry!

Annual Hydrant Inspections

This month, the Water crew continued to focus on wrapping up the annual hydrant inspections and the seemingly endless task of exercising valves in the system. In addition to performing preventative maintenance, the crew continues to provide prompt customer service to the Wilsonville water customers, responding to work orders from Utility Billing.



Chad inspecting a hydrant



Paul performing a valve exercise

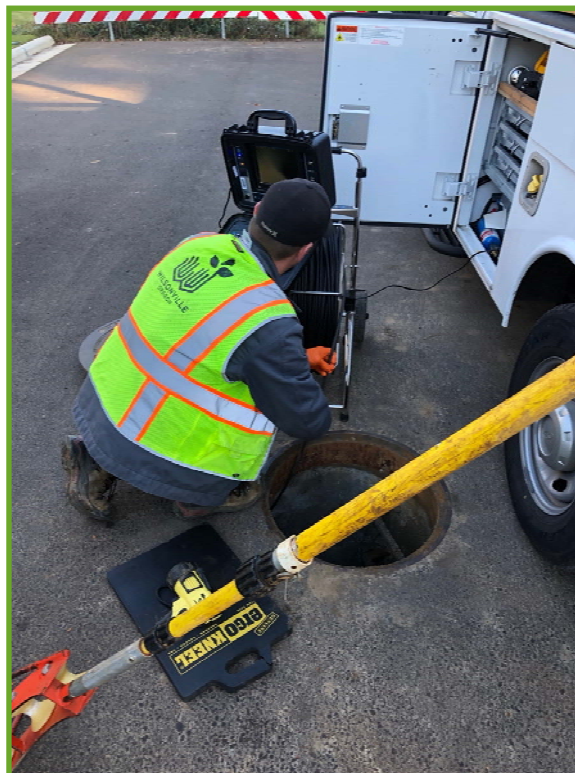
Utilities—Wastewater

Wastewater Where it Should Not Be

The Wastewater Collection crew responds to a number of customer concerns each month. These calls take priority over any other task being performed. The issues are investigated immediately in order to best serve the public and protect the environment. Common wastewater concerns that residents report to the Public Works Department include plugged sewers, vermin, and strong odors.

The crew recently responded to a call from a concerned homeowner complaining of a strong sewer smell in a newly constructed neighborhood near Boeckman Creek. Upon arrival, they immediately noted the smell and started opening manholes to investigate. It did not take long to identify the source: a nearby storm water quality manhole had filled with sewage. Discovering raw sewage in a storm manhole was shocking, as the sanitary sewer and storm water sewer are two completely separate systems in the City of Wilsonville.

The Wastewater crew worked quickly to locate where the raw sewage that had entered the storm system, and within minutes, confirmed with a push camera and dye tablets that a sewer service from a newly built and recently occupied home had been mistakenly connected to the storm system by the contractor that built the house. Fortunately, the contractor was on site working on building another home in the area, and the Wastewater crew was able to work with them to clean the storm system. The contractor corrected the plumbing issue with repairs under the home and beneath the driveway. Upon completion of the repairs the work was inspected by the City Building Department. The storm main was inspected again to insure that the cross connection was repaired.



Kyle checking the line

Facilities

Leaf Vacuum

This month, the Facilities landscape crew focused on removing the last of the fall leaves. City properties are maintained weekly and approximately 40 cubic yards of leaves were collected in the month of December alone. Leaf removal was more efficient this year due to the customized vacuum trailer and that there was not a hard cold snap causing the trees to dump their leaves all at once. Now that leaf season is winding down, the crew is ready to take on new projects.



Custom vacuum trailer at work

Holiday Cheer

This year, Public Works kept things lighthearted by introducing the “Matt on the Shelf” game for City staff. Martin Montalvo lovingly crafted cutouts of our favorite Facilities Supervisor, Matt Baker, donning a jaunty red bow. Martin sent daily emails on behalf of Matt on the Shelf, including important photo clues as to where he could be hiding. The winner had to take a selfie with Matt to claim their prize.

Face coverings were a theme with Matt on the Shelf and some of the outdoor décor, serving as a reminder to stay safe this holiday season.



Matt on the Shelf



Frosty dons proper PPE

Facilities

Holiday lights

Crews endeavored to make the holiday season at the City extra merry and bright. Among the many decorative touches added to City Hall, the Community Center, and the Public Works/Police building include: 12 strands of icicle lights, several shrubs 'a-shining', six festive wreaths, two holiday trees, an elf excavating, one glowing oak, one bear 'a-drumming', and a single snowman standing.



Wintry wonderland at City Hall



Elf at work!

The holiday tree at the entrance to City Hall took logistical planning by the Facilities team. The tree is stored in five sections, which are hauled individually up an extension ladder. Staff are harnessed up and tied to a guide cable to safely complete assembly.



City Hall with a festive entrance

Raw Water Facility Construction Update

PROJECT UPDATES

[CLICK HERE FOR FULL MAP](#)



Willamette Water Supply

Our Reliable Water Future

Raw Water Facilities (RWF)

January 4, 2021

Dear Neighbor,

We're making steady progress with the [Raw Water Facilities](#) for the [Willamette Water Supply Program](#). Please take a moment to read the January 2021 construction update below.

This is the first edition of our update using an electronic newsletter. We will send you a project update each month and for special notices to keep you informed.

Please forward this email to you friends and neighbors. It is easy to [sign-up or update your preferences](#) or [unsubscribe from this list](#) at any time.



Heads Up! Construction Activities

Thank you for your patience with our team's construction nearby.

Deep soil mixing will continue this week. By the weekend, more underground piles will be installed near the south end of the water treatment plant. This work will take three days and may at times be noisy or you may experience vibration.

Steve is our onsite inspector who is monitoring noise and vibration levels and addressing noise and vibration concerns. You can reach Steve at 239-292-4748 (cell) or steve.clapper@tvwd.org.

Thank you for your ongoing patience as we try to move things along to be complete with the deep soil mixing and jet grouting along the riverbank by the end of March.

Raw Water Facility Construction Update, continued



Learn More About the Raw Water Facilities Project

Project Overview

In coordination with the [City of Wilsonville](#), the Willamette Water Supply Program team is building improvements in and around the Willamette River Water Treatment Plant in Wilsonville. Construction is underway and expected to take four years. Improvements include:

- an improved pump station
- a seismically reinforced Willamette Riverbank
- increased water intake capacity
- a new electrical building
- a new raw water pipeline
- park restoration after construction

Willamette Water Supply
Our Reliable Water

Raw Water Facilities



Raw Water Facility Construction Update, continued

Project Schedule

- **Phase 1 Construction:** Feb 2022
- **Upper Site Grading:** July 2020-April 2021
- **Seismic Grand Improvements:** July 2020-May 2021
- **Park Area Closure:** July 2020-May 2021
- **Landscape Restoration Complete:** January 2022
- **Phase 2 Construction:** Spring 2022

Do you have questions? Please contact:

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Communications Supervisor

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[Learn More About the Raw Water Facilities Project](#)

[Learn More About the Willamette Water Supply Program](#)



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