

Loving the Science of Water

Emily Moreland first joined the staff at the city's Water Treatment Plant as a temporary seasonal summer employee. She worked at the plant while going to school at Rogue Community College, where she was taking classes with the idea of someday pursuing a career in forestry or ecology.

"I've always loved science," said Moreland.

In October 2018, she joined water distribution staff as its only full-time female employee.

"Even though this isn't something I set out to do, I fell in love with it," she said.

A major part of that love comes with knowing she is "doing something good for our city," said Moreland.

"Even if most people don't even think about where their water comes from, it feels good to know we're providing something important to the city," she said.

Moreland admits that working in water distribution isn't easy. It is an ever-evolving career field.

"It can be overwhelming how much it can change in the industry and how much there is out there to learn," Moreland said.

Training at the plant is an "all hands on deck" scenario, "with everyone working together to train everyone," she said.

"I just try to absorb as much as I can from everyone," said Moreland.

Turbidity events caused by heavy rains are the most challenging and most rewarding aspect of the job, she said.

"When heavy rains fill the creeks, and the river is raging, and we're still able to create good, clean water, it feels really good," said Moreland.



WATER TREATMENT PLANT SPECIALIST EMILY MORELAND.

"You can see the treatment happening right in front of you. It's super cool," she said.

Moreland said the science behind water treatment and the operating process can also be "tricky" at times (see graphic).

"If you lose it, it starts getting into the sediment basins, and then it goes into your filters, and that's not fun," she said.

"We operate so much better than regulations require, so even on a bad day it's still clean water, but its sort of our personal standards, and we don't like it when that happens," Moreland said.

"We like to run as good as we can. It's our water, too. We're

all drinking it," said Moreland.

According to Moreland, working at an aging facility is also a double-edged sword.

"It's kind of like working in a living museum. It's been pieced together a few times, so it's great to see how it has been upgraded a few times over the years," said Moreland.

However, sometimes "it feels like everything is falling apart," she said.

"You fix something over here, and then something breaks over there. It's an endless cycle of repairs," Moreland said.

It can be most challenging when the plant needs parts or

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'There When You Need It' National Drinking Water Week

Grants Pass is joining utilities, private companies, and government agencies across the nation to celebrate National Drinking Water Week, May 3-9. The theme of this year's celebration, "There when you need it," highlights the importance of reliable drinking water service and the value of water to everyday lives.

"Drinking Water Week gives us a chance to think about how many times a day we use water from a faucet," said Public Works Director Jason Canady.



The city water treatment plant delivers high-quality water to residents for activities such as drinking, bathing, cooking, gardening, and washing clothes, just to name a few. According to the federal Centers for Disease Control, the U.S. has one of the safest drinking water supplies in the world.

People have lived in the Rogue River watershed for at least 8,500 years. The Grants Pass water legacy includes drawing from the river to supply city drinking water since 1888.

"The City Council has made a tremendous commitment to ensuring the Grants Pass community will always have high quality water there when you need it. Our existing water treatment plant is the oldest in the state, and replacement has been a top council priority sev-

eral years. Fortunately, the city is making great progress toward building a new plant by moving to acquire a suitable site for construction," said Canady.

While many in Grants Pass realize the importance of the Rogue River to tourism revenue, most people are not aware of the value of investing in water infrastructure. According to a 2017 report directed by the U.S. Water Alliance, the economic benefits of water infrastructure investment result in a national aggregate economic impact of \$220 billion and the creation of 1.3 million jobs.

The aggregate impact is comprised of the direct impact on the water infrastructure sector, and the indirect and induced impacts generated by successive rounds of spending on goods and services in other sectors. Additional benefits flow to local communities. Reliable water sources make a community more attractive to investors and employers.

National Drinking Water Week recognizes the importance of protecting water sources, conservation, maintenance, and investment. It also highlights the value, importance, and fragility of the state's water resources. Grants Pass officials work closely with state officials to ensure city systems meet the highest standards. Investments in the water system are vital to the city's economy and to public health.

"This year's theme, 'There When You Need It,' offers a tailor-made opportunity to celebrate our water resources, and it also honors the investments in water infrastructure made by city leadership, from the start of the last century to today," Canady said.

EPA Warns About Improper Flushing

The U.S. Environmental Protection Agency (EPA) is encouraging all Americans to only flush toilet paper, not disinfecting wipes or other non-flushable items that should be disposed of in the trash.

Flushing only toilet paper helps ensure that toilets, plumbing, sewer systems and septic systems will continue working properly to safely manage our nation's wastewater.

While EPA encourages disinfecting your environment to prevent the spread of COVID-19,

never flush disinfecting wipes or other non-flushable items.

Preventable toilet and sewer backups can pose a threat to human health and present an extra challenge to our water utilities and their workforce. Fixing these backups is costly and takes time and resources away from ensuring that wastewater management systems are otherwise working properly.

Having fully operational wastewater services is critical to containing COVID-19 and protecting Americans from other public health risks.

Moreland...(from page 5)

equipment that is out of date.

"Sometimes they have stopped making stuff that we need, so we have to come up with a work-around to make it function," said Moreland.

On the upside, Moreland says she likes the experience she is gaining from working at the nearly 80-year-old facility.

"It's kind of cool to get the hands-on experience of dealing with the failures of the old plant. I feel like I'm getting more experience that way than someone who's working in a new plant that operates without any problems," Moreland said,

She equates the experience to learning how to drive in a car with a manual transmission, instead of an automatic.

"It's definitely stressful, but once you get through it, it feels good," she said.

"We're just trying to keep this plant going as long as we can. We try to be nice to her," said Moreland.

Moreland said there are also occasional oddities at the plant. One time, plant workers found

part of a sandwich in the sediment basin. They assumed that maybe a bird had dropped it in, she said. Another time a goldfish cracker was found "swimming" around the basin.

"Those things can't make it past the filters. They just get back-washed out," she said.

Being the only female at the plant, she also gets her own "private" restroom most of the time, she said.

"I'm just the only current female full-time employee, but we have other seasonal workers who are female too," said Moreland.

"There's no such thing as a male or female job. Other young women who are interested should look into it. Investigate it, and see what you think," she said.

"I didn't even know where the water plant was before I worked there," said Moreland.

"I didn't expect to get into this. I think others should be open to opportunities. They may find themselves in a job that they love," Moreland said.

Homeschool Resources Help Parents With STEM Education

With schools currently closed, more than a few Grants Pass families may be seeking some fun and educational resources to assist with managing schooling from home.

The City of Grants Pass Water Department has teamed up with the American Water Works Association and the Water Environment Federation to provide access to a variety of free, water-related educational resources for parents and their students.

The educational materials celebrate National Drinking Water Week, which will be held May 3-9 this year. According to Public Works Director Jason Canady, this year's theme, "There When You Need It," offers a tailor-made opportunity to celebrate the Rogue River, the community's unique water resource.

"This year's theme also honors the investments made by our city founders in our water infrastructure, as well as the

future investments needed to secure clean water for us all for decades to come," said Canady.

Lesson plans and worksheets cover essential study subjects such as science, technology, engineering, and math (STEM), as well as social studies, language arts, and even art and music for grades K-12.

In addition to providing links to resources such as hands-on activities, activity sheets, and lesson plans, the city is sponsoring a Water Week Poster Contest for students K-12, offering cash prizes to the winning entries.

For more than 40 years, National Drinking Water Week has been celebrated by utilities, private companies, and government agencies across the nation. Each year, the week highlights the value of water to Americans in their everyday lives, as well as the need to protect, maintain, and invest in water resources.

"Grants Pass Water Department is happy to support STEM

education and hopes that the educational materials and resources offered might encourage city youth to consider a water resources career," said Canady, who spent nearly 20 years in the city's Water Department.

Water Week Poster Contest details and rules are available at the city's website: <https://www.grantspassoregon.gov/354/Water>. Water Education resources and downloadable pdfs are on the city website at: www.grantspassoregon.gov/1361/Educational-Resources.

DID YOU KNOW?

Grants Pass has more than 187 miles of water distribution piping to transport fresh drinking water throughout the city.

The city's eight reservoirs hold 20.5 million gallons of water.

