

COGGLEVATION

JANUARY 2018 | THE LIFE AND TIMES OF PF&R'S STRATEGIC PLAN | WWW.PORTLANDOREGON.GOV/FIRE/COGGLE

SUSTAINABILITY

WE NABBED A SILVER!

PF&R has been awarded a Silver Sustainability at Work certification



The Green Team: (from left) BPS's Paul de Block, Captain Tom Walsh, and Facilities Supervisor Shawn Roberti

When Chief Myers first rolled out the Coggle, there were more than a few items related to sustainability. In fact, he could often be heard saying that he wants PF&R to be the most sustainable fire department in America. And while we haven't nabbed that crown just yet, according to the City's Bureau of Planning and Sustainability (BPS), we're getting close: each of our 30 stations (as well as the training center) have achieved a Silver Sustainability at Work certification.

The Sustainability at Work program run by BPS matches Portland businesses, nonprofits, and government agencies with a sustainability advisor who evaluates the workplace and offers feedback on how to go green. PF&R signed up and the program was overseen by now retired Captain Greg Ennis and is currently run by Captain Tom Walsh in partnership with Shawn Roberti in Facilities. According to Paul de Block, PF&R's sustainability advisor, the bureau has exceeded expectations. "When I began auditing your stations, I thought 8 to 10 locations was a reasonable number," de Block says. "What a pleasant surprise to find so many stations eligible for certification. PF&R now holds well over 90% of the certifications held under city operations."

According to BPS, this accomplishment was made possible by steps taken over the years and, more importantly, by following through on sustainability-related efforts in energy efficiency, water conservation, recycling, green purchasing, and more. The certification process showed that although there are areas that could improve, the staff responsible for implementing efficiency within the bureau have done a remarkable job.

"I'm proud of the work that the men and women at PF&R Logistics have been able to accomplish with a limited staffing model. As the service support for the whole bureau, Logistics can implement cost saving, energy efficiency, and sustainable practices into all our services," says Deputy Chief Sara Boone. "PF&R Logistics strives to incorporate practices and policies that build toward meeting the Bureau's three-year strategic plan, the city's climate change goals, and sustainability initiatives."

To measure the project's success, take a look at the simple light bulb. Shawn Roberti retrofitted the lighting at 3 fire stations: Stations 4, 7, and 22. This entailed switching to all LED lighting inside and out. This switch will save energy year-over-year and also greatly reduce maintenance costs (largely because LED bulbs last so long). The cost savings are

significant as are the savings in maintenance time.

As more stations are retrofitted with LEDs, Roberti's crew will have more time available to address other maintenance needs. This will let his crew both respond to work requests more quickly and have the ability to take on other projects that can create more efficiencies. Roberti plans to do 3-4 of these station retrofits a year.

Firefighter response has been positive. Several have noted, however, that the new lighting is too bright, especially in the kitchens and day rooms. To address these concerns Roberti has installed dimmer switches. These will, over time, save even more energy.

Some estimated numbers:

- **Station 4**
Annual energy savings: 16,799 kWh; annual cost savings: \$1544; simple payback: 2.8 years; project offsets: 8 tons CO₂/equal to 1 car off the road
- **Station 7**
Annual energy savings: 20,888 kWh; annual cost savings: \$1911; simple payback: 5.5 years; project offsets: 10 tons CO₂/equal to 1 car off the road
- **Station 22**
Annual energy savings: 10,907 kWh; annual cost savings: \$1002; simple payback: 6.2 years; project offsets: 5 tons CO₂/equal to 1 car off the road

Being certified helps us achieve citywide climate action goals, but what you see day-to-day is a higher functioning and more efficient place to work.

Examples of what we're doing to stay certified:

- Using durable not disposable dishware.
- Purchasing environmentally preferable products.
- Reducing vehicle idling.
- Recycling fluorescent light tubes, toner cartridges, and batteries.

This accomplishment recognizes the work that PF&R has been implementing for many years. The certification proves that we're doing a great job, but there's still room to improve.

In 2018, the Fire Bureau will be shooting for Gold. Look for additional work on recycling, energy efficient lighting, composting food, and more.

NOW WE'RE GOING FOR GOLD!

Some of the sustainability projects in the works



Solar

- A 30-kilowatt solar project is in the works for Fire Station 1. The new solar array will generate over 32,000 kilowatt-hours each year, and reduces this large station's utility electric usage by about 6 percent. The solar array will be accompanied by the City's first battery energy storage system. The energy storage system creates a more resilient emergency operations center as the fire station will have over an hour of built-in backup battery power to supplement the existing generator in the event of a prolonged power outage. In addition, the system will be part of a Portland General Electric demand response energy pilot, generating additional revenue for the bureau.
- At Station 13 there is now a solar thermal system that provides hot water heating. This has led to some cost reduction.

Water conservation plan

- An inventory is being conducted for all PF&R plumbing fixtures. This will identify opportunities for water and energy savings. This inventory will then be used to create a retrofit or replacement plan. As fixtures fail, Portland Fire and Rescue will have a plan in place.

Rainwater runoff

- Currently all rain water from fire stations drains into the sewer. To comply with Salmon-Safe Certification, PF&R will retrofit our run off so that downspouts drain into existing landscaping, thereby reducing the volume of water that ends up in the sewer.

Vehicles

- We are purchasing fire engines and trucks that meet current EPA regulations and standards to reduce diesel exhaust emissions; we're converting our fleet vehicles from gas to hybrid (when possible) and we will be phasing in more electric vehicles in the future; electric vehicle charging stations installed at Station 1, Training, and Logistics.

HVAC system upgrades

- Most of the HVAC systems are currently 15-to-20 years old and not very efficient. When one of these breaks we replace it rather than repairing it. The new systems use much less gas and electricity and produce more heating and cooling for a lower-cost. Additionally, Shawn Roberti installed switches that turn the heat off when the bay doors are open.

For ideas and innovations about greening city government operations visit <https://www.portlandoregon.gov/BPS/cityworksgreen>



Do you have a story about a PF&R cogglevation that would be great for this newsletter? Contact Caryn Brooks on the Communications Team caryn.brooks@portlandoregon.gov or 503-823-3714

