Facilities Management Services: Sustainability

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“We’re all in this together” – pcc.edu/sustain
Executive Summary
At Portland Community College—we’re all in this together to promote sustainability. FMS plays a leading role in PCC sustainability—from operations and administration, to education and encouraging sustainable behavior change. The Sustainability Manager is housed within the FMS department, and the FMS Director is co-chair of the college’s Sustainability Leadership Council—which is tasked with implementing the college’s Climate Action Plan.

FMS shows its commitment to sustainability through the following practices:

- Participating in the Green Office Program
- Implementing green cleaning practices that drastically reduce cleaning chemicals
- Managing waste diversion efforts to reduce waste sent to landfill
- Ensuring best maintenance practices to reduce resource consumption
- Practicing strict Integrated Pest Management procedures that reduce chemical inputs by 70%
- Integrating sustainable purchasing criteria into products and services purchased in FMS
- Co-sponsoring the Strategic Energy Management initiative in collaboration with the Energy Trust of Oregon
- Reducing energy consumption through energy infrastructure upgrades and retrofits
- Advancing sustainability standards in projects and remodels
- Supporting hands-on learning opportunities in sustainability for students
- Promoting sustainability training like Leadership in Energy & Environmental Design (LEED) for employees
Introduction
At Portland Community College – “we’re all in this together” (link to sustainability website) to promote sustainability and Facilities Management Services is doing its part. FMS plays a leading role in PCC sustainability - from operations and administration to education and encouraging sustainable behavior change, some of these efforts include:

Administration
FMS focuses its sustainability efforts around the college’s Climate Action Plan, PCC Strategic Plan, and the FMS Strategic Plan- which has a goal to infuse sustainability throughout all FMS practices by 2017. The Sustainability Manager is housed within the FMS department and charged with orchestrating the college’s sustainability initiatives in line with the college’s Climate Action Plan and Strategic Plan. The Sustainability Manager also plays a key role in enforcing college policies related to sustainability, ensuring the integrity of the college’s sustainability program, and handles reporting requirements. Additionally, the FMS Director is co-chair of the college’s Sustainability Leadership Council- which is tasked with implementing the Climate Action Plan.

FMS also participates in the Green Office Program and the Sylvania office is Green Office Certified at the Gold level! FMS also works hard to promote sustainable purchasing and recognizes that no purchasing is the most sustainable form of purchasing- especially in regards to chemicals and other supplies that may impact human and environmental health. Through use of the Lotus Pro cleaning system and integrative pest management, FMS has cut out the majority of purchases of cleaning chemicals and pesticides. Many other purchases are Green Seal certified and paper products meet EPA environmentally preferable purchase guidelines. FMS also puts sustainability criteria into its bid process so that vendors are graded on their contributions to sustainability.

Custodial & Maintenance
Custodial has implemented many sustainability-focused programs such as switching to the Lotus Pro system as part of its green cleaning efforts, which uses ionized water for cleaning and avoids the use of over 170 gallons of cleaner annually. Any other cleaners purchased are Green Seal certified and all custodial paper products purchased contain at minimum 50% post-consumer recycled content. There is also a large emphasis on reusable products and a shift away from disposables and systems that utilize disposable products. Additionally, custodial did away with their overnight cleaning shifts to help conserve energy.
Custodial has also worked hard to reduce the college’s waste and improve diversion rates through supporting recycling, composting, and waste reduction efforts. One such effort is the introduction of mini trash cans and centralized waste collection (currently in the pilot phase), which encourages occupants to take ownership of their waste and helps reduce consumption of resources. For example, eliminating large trash can liners saves the college over $30,000 a year and diverts almost 20,000 pounds of plastic waste from the landfill. Collectively, these efforts have resulted in solid waste contributing to less than 1% of the college’s overall greenhouse gas footprint.

FMS Maintenance team monitors HVAC filters to replace when needed – which promotes ideal air quality, reduces overall energy consumption, and reduces waste from filters. Refrigerant leaks are repaired immediately to avoid ozone-depleting substances from entering the atmosphere at any rate which exceeds EPA standards. FMS uses low or no VOC paints whenever possible and request that our contractors do the same. FMS now has a Preventative Maintenance Coordinator that will allow us to track and monitor when systems need maintenance to ensure best practices and reduce strain on resources.

Planning, Design & Construction

As the PCC Bond Program builds new construction to LEED Certifications, FMS also supports these goals in all remodels and retrofits. Our project managers reuse materials whenever possible and select new finish materials that meet, and often exceed, PCC standards for sustainability. Projects incorporate standards such as: no or low VOC paints and stains, carpet with recycled content, non-toxic fabrics, Energy-Star certified new equipment, water efficient plumbing fixtures and automated lighting controls. Further, water-fill stations have been installed throughout the District, collectively saving over 2 million plastic bottles from use.

In addition, our managers remind users to consider PCC’s sustainability goals when adjusting existing thermostats and lights that are not controlled automatically yet. Our vendors and contractors are also showing great strides in sustainable product purchases and recycling procedures. They are often asked to submit their “green” practices as part of job proposals. We continually consider the life cycle of products purchased and source locally whenever possible.

Energy

PCC is reducing energy consumption even as the college’s size continues to grow- in fact, we have seen a 45% decrease in energy use per square foot since 2006! The Energy Manager, housed within FMS, works with all of the FMS Custodians, Technicians and Project Managers to incorporate and promote
energy conservation best practices with infrastructure maintenance and upgrades - such as condensed natural gas boilers and utility loop upgrades - and moving our lighting technology into the future with new LED retrofits. For example at Sylvania, the old inefficient parking lot lighting is being replaced with new LED technology - which will use half the energy compared to the existing lighting! PCC has received over $820,000 in incentives from the Energy Trust of Oregon since 2010. FMS is also co-sponsoring the Strategic Energy Management initiative at our Rock Creek campus. In collaboration with the Energy Trust of Oregon, the campus is promoting energy conservation through operational and mechanical changes, with a large focus on educating occupants about their impact on energy consumption. We hope to one day roll this program out district-wide.

Grounds & Water

Within the Grounds department, strict Integrated Pest Management procedures are followed. With an emphasis on best practices such as planting natives for ground cover, hand pulling and burning weeds, mulching, and efficient watering - the Grounds Department has reduced pesticide use by over 70%. Grounds has also reduced nitrogen use by implementing a liming program using humic acids - which has reduced fertilizing by 50% to one or two applications a year. In order to conserve resources, the Grounds crew recycles all landscape debris that is either used for mulch or composted, and is moving away from turf in landscaping. The Grounds crew maintains an ET-based computerized irrigation system, which uses real-time weather and climate data to ensure that water used for irrigation replaces the volume of water lost through evapotranspiration and avoids using water unnecessarily. Irrigation occurs in the morning and evening to minimize water loss through evaporation. Native and drought-resistant plants, which require less water, are being introduced on campus in the landscaping around new buildings, including any LEED buildings. Grounds also promotes bee and pollinator-friendly habitats with wildflower plantings throughout the district.

Over the last ten years, FMS has championed its storm water program in collaboration with Clean Water Services and the Portland Bureau of Environmental Services. For example, the CLIMB Storm Water Education Plaza project was selected as one of the “2013 Top Storm Water and Erosion Control Projects” in the U.S. by Storm Water Solutions! Grounds, with the help of the Bond, has installed and maintained many new bio-swales throughout the district to slow down, filter and infiltrate storm water runoff naturally. The use of permeable pavers in our standards has also helped reduce runoff from our
parking lots and Grounds installs buffer zones of plant material to prevent erosion and sediment from getting into the ponds and waterways around the campuses that have them. Additionally, Grounds has a storm water injection management program (SWIMP) with strict guidelines for maintaining PCC storm water facilities. These landscape and physical features improve water quality on campus, in natural waterways and communities downstream.

**Education & Outreach**

Recognizing that the ultimate goal is to provide high quality education to all, FMS is committed to supporting academics and educational opportunities related to sustainability as well. Through participating in cooperative education classes to promote living laboratories, to supporting the campuses’ learning gardens, and providing assistance in managing projects funded by Student Council’s The Green Initiative Fund – FMS is integral to the student experience in sustainability.

FMS is not only committed to supporting sustainability education for students, but for employees as well. This past year eight FMS employees attended training for Leadership in Energy & Environmental Design (LEED) to educate on green building principles and prepare for the Green Associate certification exam. FMS regularly sends staff to Integrated Pest Management trainings, green cleaning trainings, etc. as well as other conferences focused on sustainability in higher education.

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