Before making a new purchase, consider the following:

Is this item already at the college?

<u>Central Distribution Services</u> (CDS) serves as a hub for retaining still usable goods and disposing of unneeded, but sellable surplus property. They receive a wide variety of surplus items during office cleanouts and remodels, which can be reused by the college or, when no longer useful, sold, recycled, or otherwise disposed of. They have a range of items which including chairs, filing cabinets and office supplies. Email <u>stores@pcc.edu</u> to put in a request for a needed item.

Am I the right person/department to be making this purchase?

Several of PCC's employees make frequent, high volume purchases on behalf of the college and are experts in buying certain types of products such as computers, furniture and vehicles. They consider the total cost of ownership and are frequently able to get discounts using bulk buying power or through the use of large contracts.

What are the total costs of ownership?

PCC is committed to being a good steward of public funds and that includes considering total cost of ownership. The total cost of ownership means evaluating goods and services on how much they will cost to operate, maintain and dispose of with considerations for the environmental and social costs in addition to the purchase price. The total cost of ownership should include the initial purchase price and all other costs, including installation, freight, taxes and fees where applicable, operating and energy costs, maintenance cost, warranty cost, collection and end-of-life disposal or recycling costs. These costs are often not considered when purchasing an item, but still paid by the college until after disposal. The college is taking into account criteria that reflect qualitative, technical and sustainable aspects of the purchase as well as price when reaching an award decision. In addition to the total cost of ownership, PCC aims to make purchases that align with college values.

What will happen to this product at the end of its life cycle?

Products vary vastly as to their ability to be recycled. The more easily a product can be broken down into its component parts, the more likely it is that at least some of it will be accepted by the recycling system. But not all materials have a high resale or reuse value. Metals tend to have the highest resale and reuse value, followed by glass and wood. Plastics have the least, as they can only be reformed into weaker plastics. Many of the landfills the college sends its waste to have some form of methane recovery and/or electrical generation. However, there is no guarantee that the landfills maintain these practices for all waste sent there. Items in landfills decay very slowly as they are often without the ingredients that would let them decompose: air and sunlight.

For Assistance...

The PCC Sustainability Department will help you evaluate the sustainability options for your purchases and can work with both you and our Purchasing Department to develop sustainability specifications for your contracts and requests for proposal.

Ecolabels



If a purchase is required, is there a consumer conscious label (ecolabel) for this product type?

Consumer conscious labels, also known as ecolabels, represent a declaration that a product is sustainable in some way. Many companies self-declare the sustainability of their products. To avoid greenwashed products (products making unsubstantiated environmental claims) rely only on ecolabels that are third-party verified by an independent group. Ecolabels refer mainly to the environmental impacts of products, although many include other social considerations as well (e.g. ensuring no child labor, living wages and workforce reentry programs.) In general, consumer conscious labels go above and beyond standard government regulations and represent a conscientious effort to hold the organization to a high standard of excellence.

Consumer conscious labels may measure one or more of the following:

- 1. Overall company practices and procedures
- 2. An individual characteristic of a product (e.g. Rainforest Alliance Certified recycled content or sweatshop free)
- 3. An aspect of production (e.g. made with 100% renewable energy)
- 4. Meets certification requirements (e.g. Fair Trade USA)
- Achievement of multiple standards (e.g. PCC is rated Silver in the Sustainability Tracking and Reporting System, PCC meets Tree Campus USA standards)



Look for these Ecolabels

Look for third-party ecolabels to help you make better purchasing choices. They cover a huge range of products.

Some of the more popular ones include (from left to right and top to bottom below): <u>B Corporation, Global</u> <u>Organic Textile Standard, Fair Trade Certified, USDA</u> <u>Organic, Ecologo, Green Seal, Cradle to Cradle, Energy</u> <u>Star, Rainforest Alliance Certified, US Green Building</u> <u>Council, Safer Choice Forest Stewardship Council, Bee</u> <u>Better Certified, WaterSense, epeat</u> and the <u>Sustainable</u> <u>Forestry Initiative</u>.



For Assistance...

The PCC Sustainability Department will help you evaluate the sustainability options for your purchases and can work with both you and our Purchasing Department to develop sustainability specifications for your contracts.

Characteristics of Socially Responsible and Sustainable Goods and Services

Introduction

This document is a list of characteristics and attributes of sustainable goods and services, which align with <u>PCC</u> <u>Mission and Values</u>, <u>PCC's policies on solid waste</u> <u>source reduction</u> and <u>PCC's 2021 Climate Action Plan</u>. This guidance is divided into sections to help you with your purchasing questions and offers detailed questions for you to think about the environmental and social impact of the goods and services you buy. These questions include reflections about how your purchase is made, how it will be maintained, what impacts it will have while being used, what the packaging is like, how it will be delivered and what kinds of certificates it might have. These questions can also help you write a request for proposal (RFP).

Manufacturing Characteristics

- Made from recycled materials, preferably with with at least 30% or more of post-consumer content; made of recycled and recovered content
- Made from raw materials obtained in an environmentally sound manner
- Produced locally or regionally; locally available products and services that exhibit additional sustainability criteria
- Products made with conflict-free minerals

Supplier & Manufacturer Characteristics

- Supplier and/or manufacturer employs supplier code of conduct.
- Supplier and/or manufacturer offers transparency in the supply chain.



- Supplier and/or manufacturer is a member of the Minority, Women and Emerging Small Business supplier and community workforce in accordance with <u>PCC Board Policy B-506</u>, <u>Minority Women-Owned and Emerging Small</u> <u>Business Participation and Workforce</u> <u>Development</u>.
- Supplier and/or manufacturer is employee owned
- Supplier and/or manufacturer has a mission, vision, values and/or policies that align with the college's mission, vision, values and/or policies on diversity, equity, inclusion and sustainability
- A Qualified Rehabilitation Facility (QRF) provide this product or service.?

Ownership & Operational Characteristics

- Durable, reusable, long lasting, repairable, refillable and rechargeable
- Energy efficient and/or water efficient (e.g. <u>United States Environmental Protection</u> <u>Agency (USEPA) Energy Star</u> or <u>US EPA</u> <u>WaterSense</u>)
- Nontoxic and low Volatile Organic
 Compounds (VOCs)
- **Q** Recyclable, compostable and biodegradable

Packaging Considerations

- Minimally packaged or with recyclable packaging or packaged with high post consumer recycled material packing or with reduced packaging through methods such as vendor take-back of packaging or packaging reuse options
- Made of rapidly renewable materials (e.g., bamboo, cork)

Characteristics of Sustainably Purchased Goods and Services

Product Delivery

- Product is available in bulk
- Product is delivered in green vehicles that are fuel efficient or use alternative fuels
- Product is delivered with route optimization or fuel efficiency in mind

Certifications / Ecolabels

- **Certified organic products**
- Generation Fair trade certified products

Waste Reduction - Reduce

- □ Is this purchase necessary?
- Can demand for the item be aggregated amongst multiple users?
- Can a service be used to meet the need?
- □ Is there an existing contract or cooperative solicitation for this product?
- □ Is there another agency involved in a similar solicitation that the college could partner with on a joint solicitation?
- How much waste is generated by the product during its use and disposal?
- **C**an this waste be minimized?
- □ What is the cost of disposal arrangements?

Waste Reduction - Reduce & Reuse

- Can a used or refurbished item meet the requirement?
- Can this product be procured through PCC's or the <u>State of Oregon's Surplus Property</u> <u>Department</u>?
- □ Could a lease or rental option be considered?
- □ Is the product durable?

- Can the product be disassembled for reconditioning and reuse?
- Can the product be re-used for a similar or different purpose after its use for this solicitation is complete?
- Can the product be used with reusable components or features, such as rechargeable batteries?

Waste Reduction - Recycle

- □ Is the item disposable or can it be recycled at the end of its life?
- □ Can waste be source separated on site and recycled?
- Does the supplier/manufacturer offer take-back programs for reuse or recycling? Can this reuse or recycling be verified?
- □ Will consumables (such as toner cartridges) be accepted for recycling?
- □ Where hazardous waste is involved, can a certified recycler be engaged to reclaim or recycle material?
- □ Is the product made from recycled materials?
- □ Can the product and/or its packaging be recycled at local facilities?

Operation Efficiency

- □ Are there options to increase the product's energy or water efficiency?
- Does the product require specialized disposal such as hazardous disposal?
- Can the product be made with less toxic ingredients/components?
- Does the product have a certification label such as <u>Energy Star</u> or <u>EPEAT</u>?
- □ Was a total cost of ownership or lifecycle costing analysis performed on this purchase?

Disposal: Reuse, Repurpose, Compost and Recycle

Deskside Trash Disposal

PCC offers a Mini Max bin instead of a desk-side trash bin. Place landfill garbage into the Mini-Max and all recyclable materials into a normal desk-side recycling bin. The Mini Max can hook easily on the inside or outside of a desk-side recycling bin. When they are full, or need to be emptied, take them to the closest centralized trash and recycling area and empty them. Custodians empty these centralized units daily.

Hi, I'm Mini Max, your landfill bin.

Don't forget to empty me and all your recyclables at your closest centralized waste location. Empty me frequently to avoid pests and smells!



We suggest that you take your food and wet trash directly to your central bins, to avoid dirtying the Mini Max. This also helps reduce pest issues! No liners will be provided, though reusable towels for cleaning will be available.

Each employee is responsible for emptying their own Mini Max container. PCC's custodial staff do not empty desk-side containers.

PCC Green Teams and Sustainable Office Habits

Purchasing is not the only way to reduce waste at PCC; every fall, you can join the college's Ecochallenge team to help you in developing sustainable office behaviors such as printing, turning off lights and changing the power settings on a computer. Join one of the college's many green teams to champion these initiatives in an office or building or check out our website for additional resources.



PCC offers a green office certification program.

<u>PCC Green Teams</u> are self-organized groups of faculty, staff and students committed to advancing sustainable practices in their office, department and/or building. These sustainability champions recognize the importance of staff and faculty commitment in order to meet the college's progressive sustainability goals. Green Teams meet about once a month to connect and share ideas, plan initiatives and celebrate their accomplishments. These meetings also serve as a platform for collaborative education, community building and innovation. Green Team members use a variety of provided resources and outreach materials to promote eco-friendly offices and reduce the college's environmental footprint. They also serve as the primary contact for their department or building when working with sustainability staff on events and other initiatives.

Check out <u>PCC's Sustainability Initiatives</u> to learn more about green teams and to sign up. Please reach out to the Sustainability Department at <u>sustainability@pcc.edu</u> for tip sheets or stickers to post in a work area.

Resources

Please visit our <u>Waste, Recycling and Composting</u> webpage to review our Solid Waste Management policy.



Office Supplies

Introduction

At PCC, we use a variety of office supplies to get the job done. Office supplies can be hard to recycle materials, but we think it is important to find specialized avenues to recycle and repurpose these goods. To further our sustainability efforts, we urge the PCC community to only purchase what is needed and to purchase office supplies from environmentally and socially responsible vendors.



Tips

Make bulk ordering to cut down on transportation emissions, which helps us keep our air healthy, and reduces packaging waste. If there is uncertainty about the sustainability of a product, try an online search or contact the Sustainability Department at <u>sustainability@pcc.edu</u>! A little research can usually determine if it is an eco-friendly or wannabe-green product.

Look for These Third-Party Ecolabels





Best Practices for Buying Office Supplies

When shopping for new office supplies, look for the following qualities:

- Contains 30% or more post-consumer recycled content or remanufactured
- Made with 30% or more agricultural residues, rapidly renewable materials or bio-based alternatives
- Has features such as solar powered, PVC free, rechargeable, refillable, or made with rapidly renewable materials.
- Is manufactured or has business offices locally
- Is registered as a <u>Minority and Women Business</u> <u>Enterprise (MWBE)</u> or certification standards through the Oregon <u>Certification Office for</u> <u>Business Inclusion and Diversity</u>
- Has a recognized third party verified ecolabel

Community Benefits

- Reduces waste
- Reduces pollution
- Responsibly managed at the end of life
- Reduces greenhouse gas emissions
- Saves money
- Supports the local economy

Printing



Auxiliary Services

Auxiliary Services is responsible for purchasing printer paper and paper related (e.g. copiers, printers, scanners, fax machines, etc.) equipment. The use of individual printers is not allowed unless the user is working with highly confidential or proprietary information or has a highly specialized need (e.g. plotters, CAD printers, 3-D printers etc.). In addition, there is a preference for <u>Energy Star</u> qualified or <u>environmental product</u> <u>assessment tool (epeat)</u> registered paper related equipment.

Panther Print

The PCC Print Center launched the Panther Print/Mandatory Printing Services program to centralize our printing, save money and resources and boost productivity throughout the district. The program encompasses all printers and copiers throughout the District. In less than a year, 167 desktop printers or non multi-function devices (e.g. printer/fax combination) were taken out of commission, leaving 382 printers college wide.

Paper

PCC requires the use of 30% post consumer recycled paper in all district printing, including Panther Print, The Print Center Fleet and the Print Center Production Printing. Post-consumer waste is waste that is generated through the consumption process as opposed to the manufacturing process.

Panther Print automatically ships supplies for devices as the supply runs low, saving resources in the ordering process. Panther Print excludes plotters, 3D printers and CAD printers.

PCC's print services offer many tips on <u>reducing paper</u> <u>use</u>.

Printing Tips

Remember to:

- 1. Be selective about what you print.
- 2. Use recycled content paper.
- 3. Use both sides of the paper.
- 4. Go digital read, send and save soft copies of your documents.
- 5. Recycle or reuse scrap paper.

Did you know...

Each ton (2000 pounds) of recycled paper can save 17 trees, 380 gallons of oil, three cubic yards of landfill space, 4000 kilowatts of energy, and 7000 gallons of water. This represents a 64% energy savings, a 58% water savings, and 60 pounds less of air pollution!

Source: University of Southern Indiana, 2022.



SWAG, Awards, Gifts and Flowers

Introduction

SWAG is a great way to promote PCC and our many programs. However, it is recommended to offer an experience based opportunity over physical swag. Ideas include offering a pizza party, donating



food to the PCC Panther Pantry in the individual's or department's name or providing tickets to a college event or local play! Would someone like a succulent instead of cut flowers?

Consider other low cost promotions by providing that memorable, "instagram-able moment." Create an experience that would be more memorable. How about an opportunity to meet a local hero and snag a picture? A chair massage? A guessing game? A photo-booth? These instagrammable moments are also a great way to generate publicity for your program.



When considering more durable swag, it is important to think about how it will endure in the environment. Putting more detailed research into product choice will likely yield buying a more sustainable product. Bags and t-shirts are nice items. Consider obtaining those made from 100% cotton as opposed to a blend, which is harder to recycle. Even better, t-shirts may be obtained from organic cotton or recycled materials, repurposed, etc. Scientists have recently reported that microfibers shed from synthetic materials (polyester, acrylic, polypropylene, polyamide and polyethylene) are ending up in our waterways, simply by being laundered.

When purchasing containers, look at glass in a protected silicone sleeve or a stainless steel option. These are great for durability and avoid the chemical exposure to drinking water that may happen with a plastic reusable container.

An option for staff and student give-aways at the Rock Creek and Sylvania campus include vouchers for the OZZI reusable food and drink containers program.

This allows all members of our community to participate in the program without paying the deposit. Please reach out to the Sustainability Department to acquire vouchers for the OZZI program.



Laptop/notebook stickers and buttons also make low impact, high volume swag. For example, when buying a sticker, it would help to ask the printer about where it is made, do they offer soy-based inks and is there recycled content in the product.

Did you know...

As of 2021, the promotional products industry was worth \$17.8 billion. This is down from approximately \$24 billion in 2018.

Source: IBIS World and Fast Company

PCC Branded SWAG

To obtain PCC Branded Swag, please work with Marketing and Communications. The Sustainability Department is also happy to share its experiences acquiring items for its own program, such as pins, bags, notebooks, straws, mugs and awards. Here are a few examples of past purchases designed and acquired by PCC's Marketing and Communications and Sustainability Departments.





Chico Bag

ChicoBag company is a certified B-Corporation, a certification that indicates that the company is dedicated to being a force for good. It's sustainability commitments include acceptance of old reusable bags that will be repurposed or recycled and a zero waste center in their office that assists with keeping waste out of the landfill. PCC has purchased reusable bamboo utensil sets from <u>4Imprint</u> and the <u>Chico Bag</u>, a reusable bag that fits easily into a backpack. Chico Bag also provides imprinting for the Light My Fire Spork, which has been purchased by both the Associated Students of Portland Community College and the PCC Sustainability Department.

Scout Books

Scout Books is a local print vendor who uses 100% recycled paper in the products. These are also a great product because the little notebooks they create are a usable item. People like to put them in their bags for notes, lists, etc. When branded they created a usable item that will always remind people of the college every time they use it.



The Sustainability Department has also worked with <u>PCC STEAM Centers</u> at the Sylvania and Cascade campuses respectively to create these one of a kind awards.



Choosing Printing Services

Choose a printer that can avoid petroleum based products. The Sustainability Department uses <u>Rendered</u>, which is based in Portland, Oregon and offers water-based screen printing. This process avoids mineral spirits, paint thinners and other petroleum based cleaners. Direct fabric printing for tablecloths and banners can also reduce the amount of water used in the printing process.

Disposal: Reuse, Repurpose, Compost and Recycle

Reuse and Repurpose

PCC recommends disposal by finding the highest and best use. The college attempts to reuse or repurpose surplus property before selling, composting, recycling or trashing it. PCC's surplus property is handled through Central Distribution Services (CDS), a part of Facilities Management Services (FMS). PCC property is considered publicly owned because PCC is primarily funded through Oregon tax dollars. PCC must follow state and federal guidelines regarding recording and tracking of existing property and how property is disposed of once it becomes surplus. For more information about property disposal, please review PCC's Step by Step Guide to Disposing of Surplus PCC Property. PCC's website has more information on waste, recycling and composting, as well as PCC's Solid Waste Management policy.

Composting and Recycling

PCC handles the management and proper disposal of a wide variety of items after their useful life cycle. In the classroom, office and general areas, plastic bottles, cans, paper and glass are collected. In the kitchens, pre-consumer food waste is collected at all four campus cafeterias. Post-consumer food waste is collected in the dining hall at the Cascade, Rock Creek and Sylvania campuses. Universal waste, which includes items such as batteries and light bulbs, is handled through Environmental Health & Safety. Get in with the sustainability department about our many other specialized recycling and waste management programs.

Resources

- <u>Waste, Recycling and Composting</u>
- <u>Recycling @ PCC Guide</u>



Surplus Property

In addition to redistributing reusable items, Surplus Property has recycling programs for durable items that have no further use and no market value including: toner cartridges, metals, non-functioning electronics, paper and cardboard, wood (must be clean and have no metal or lamination) and most furniture (does not include systems furniture). Items with market value may be redistributed to the college through <u>stores@pcc.edu</u>, shop the warehouse pop-up-events and or Government Surplus.



Lighting, Appliances and Electronics For Personal Use

Introduction

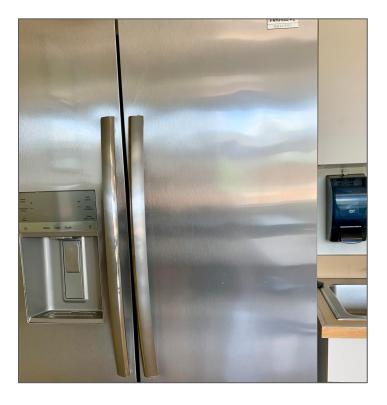
PCC employees frequently bring in lamps, space heaters and other appliances and electronics to work for personal use. Employees also purchase equipment for breakrooms, like refrigerators and toaster ovens. These appliances and electronics represent significant energy use to our buildings, but careful purchasing and wise device management can reduce that impact.

Surprising Fact

Plug loads may account for 25-50% of total energy consumption or more in a high efficiency building.

Community Benefits

- Uses energy efficiently
- Uses water efficiently
- Ensures responsible end of life management
- Reduces greenhouse gas emissions
- Saves money



PCC Recommends

- Use a LED bulb.
- Purchase <u>Energy Star</u> rated equipment
- Purchase <u>epeat</u> rated electronics
- Some of the most energy efficient appliances available have been recognized as Energy Star Most Efficient.
- Purchase devices that have automatic shut-off features.
- Purchase from a local retailer or manufacturer.
- Purchase from manufacturers/retailers that have "take-back" programs for appliances at the end-of-life for recycling or refurbishment.

Look for these Ecolabels



The <u>US Environmental Protection Agency's Energy</u> <u>Star</u> label will help you easily identify which products are the most efficient options, and then their EnergyGuide can be used to directly compare your top choices and give you an estimate of the energy use and operating cost.

The <u>Environmental Product Environmental</u> <u>Assessment Tool (EPEAT)</u> is another tool that will help you evaluate the sustainability attributes of your future purchase.

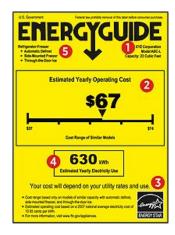
Lighting, Appliances and Electronics For Personal Use

Tips for Saving Energy



- Electric tea kettles can be an energy efficient way to heat water, but only if you don't overfill them. Otherwise, a microwave can be an equally efficient way to heat water.
- Gaskets on refrigerators should be checked annually for cracks and tears
- Take advantage of rebates from the manufacturer and from the Energy Trust of Oregon for appliances that use energy and water efficiently.
- Size appliances appropriately. For instance, if you only have a few employees using a refrigerator, think about buying a smaller refrigerator. This would save both money on and energy.
- Employ "power saving" modes in available devices; or add external controllers that will power down devices when not in use. Examples include setting up power settings for a computer and monitors and adding smart-power strips that will stop power to equipment that is not in use.
- Use a power strip for devices that don't need to be left always on and shut off the power to the whole strip when you leave the room.
- Unplug personal devices when not in use. Unplug other office equipment when preparing for office closures, or for an extended period of lower activity or occupancy levels. Even leaving a charging cord plugged into the wall without a phone on the other end will draw some power.
- Certain types of devices like microwaves require a three-pronged plug. Check with <u>Environmental Health and Safety</u>.

Use the Energy Guide to Make Better Decisions



The US Environmental Protection Agency's (USEPA) Energy Guide Label is required on all appliances sold in the United States, but not all appliances merit an Energy Star Rating. Ovens for example, do not get Energy Star Ratings.

According to industry representatives, a toaster oven uses about ½-⅓ less energy than a conventional electric oven for cooking small meals. Typical power consumption of a toaster oven during use is 1,200 to 1,400 watts. Toaster ovens with digital controls use energy even when in standby mode or off!

Space Heaters

Only use space heaters as a last resort; tickets for heating and cooling issues should be submitted through the <u>Facilities Management Services' ReADY</u> <u>system</u> right away.

Requests for such items should be sent through management, with Risk and <u>Environmental Health</u> and <u>Safety</u> involvement.

What is the right way to dispose of my appliance?

If your appliance is still working, you can check with PCC's listserv for repurposing items. Sign up with <u>free-stuff-group@pcc.edu</u>.

Business Travel

Introduction

Travel relating to education, research and college operations is essential to PCC. In order to achieve the college's climate action goals, it's important to take into consideration the environmental and social impact of a trip.

Thinking about environmental and social friendly options not only reduces air pollution and greenhouse options, but sends a market signal that social and environmental values are important to the college.

Telecommunication has the lowest carbon impact (and the lowest cost) for meetings. PCC's greenhouse gas inventory tracks how much greenhouse gasses are emitted from travel contribute to our overall carbon footprint.

Travel impacts result from transportation, meals and lodging. Impacts vary based on the mode of transportation (air, auto, train, bus, etc.). Travel by bus, train, or carpool emits less carbon than traveling by plane. PCC's greenhouse gas emissions from travel are roughly equivalent to its emissions from the natural gas used to heat and cool the college.

Think Ahead

Ask whether the potential benefits of the trip justify the time, expense and environmental impact after considering cost effective and low carbon alternatives, such as video conferencing. If the answer is no, choose another option.

Coordinate travel with others going to the same destination can result in reduced expenses and reduced environmental impact (e.g. ride and/or stay share).

Consider your total travel budget when booking a place to stay. Staying at a location far from eating options or far from your event will increase both your travel costs and environmental impact.

Eating There

Sometimes traveling can pose a challenge to normally sustainable eating habits.

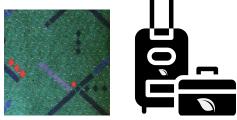
- Purchase items labeled <u>Fair Trade</u>.
- Eating locally produced food and drinks is a great way to check out the local 'terroir.'
- Download the <u>Monterey Bay Aquarium</u> <u>Seafood Watch App</u> to assist with making sustainable seafood choices.

Staying There

Where and when practicable, consider using an ecologically responsible hotel, such as the one identified by the <u>Green</u> <u>Hotel Association</u>, <u>Green Globe</u>, <u>Hoteles Mas Verdes</u>, <u>Green</u> <u>Key Global</u>. When booking a home sharing rental (e.g. <u>Vrbo</u> <u>Airbnb</u>), look for one that is run by an individual to make sure you aren't contributing to a rapid rise in local housing costs.

Getting There

While green ridesharing options are becoming more and more commonplace, it's still greener to take public transit, walk or even bike to your destination. If you still need to hail a ridesharing option, look for one that has electric vehicles, uses third-party verified carbon offsetting or makes other verifiable social and environmental commitments.



Green Cleaning and Sanitary Paper Products

Introduction

Green cleaning is a holistic approach to janitorial and housekeeping services. It takes into account the health, safety and environmental risks associated with the product and processes associated with cleaning and balances this with facility needs.

About Green Cleaning



Green cleaning involves the use of alternative products, application of the product in different ways and evaluation of how the product is used.

Green cleaning addresses:

- Sustainable cleaning systems.
- Sustainable cleaning products and maintenance related to floor, carpet and entryway system.
- Use of chemical concentrates and appropriate dilution systems
- Cleaning equipment that reduces the impacts on indoor air quality
- Training of maintenance personnel in the hazards, use and disposal of cleaning chemicals, dispensing equipment and packaging
- Promoting and improving hand hygiene
- Collecting and addressing occupant feedback

Community Benefits

- Better for occupant and worker health
- Reduces pollution, particularly to our waterways

Resources

- <u>ECOLOGO Product Certification</u>
- <u>Green Seal Industrial Cleaning Products</u>
- <u>Sustainable Purchasing Leadership Council</u>

Green Cleaning Policy

PCC's Green cleaning policy specifies that when possible, cleaning products and materials, including hard-floor and carpet-care products shall, meet the requirements of the <u>Leadership in Energy and</u> <u>Environmental Design (LEED v.3 2009) Indoor</u> <u>Environmental Quality Credit: 3.3 Green Cleaning</u> <u>Purchase of Sustainable Cleaning and Products</u>.

PCC prioritizes cleaning products that meet the Green Seal <u>GS-37 standard</u> for general-purpose, bathroom, glass and carpet cleaner use for industrial and institutional purposes and <u>GS-40 standard</u> for industrial and institutional floor-care products. Other products must meet the <u>ECOLOGO</u> certification standard and or comply with the maximum allowable volatile organic compound (VOC) levels specified in the California Code of Regulations, Title 17 Section 94509. Hand soaps must also meet one or more of the <u>Green Seal</u> or Ecologo certified standards.

Paper products should be composed of I00% recycled content (including post-consumer waste) and be of sufficient quality to maintain tenant comfort. All disposable custodial paper products and trash bags meet the minimum requirements of the <u>U.S. EPA's</u> <u>Comprehensive Procurement Guidelines</u>. Hand soaps should be <u>Green Seal</u> certified.



Chemical Acquisition



Introduction

Chemicals are in use at the college for a variety of reasons including academic use, operational processes, disinfecting/sanitizing and pest management. The Sustainability Department and Environmental Health and Safety Department frequently collaborate to ensure that PCC's acquisition, use and disposal of chemicals are safe, responsible, meet regulatory requirements and are ecologically responsible.

Chemical Acquisition

Any chemicals with the following classifications require additional vetting at PCC per the Hazard Communication Plan; acute toxicities, germ cell mutagenicity, reproductive hazard, and/or carcinogenic by the GHS / SDS Employees shall solicit information and guidance from the Environmental Health and Safety Department to determine the additional approval steps for purchasing, transportation, receipt, handling, storage and disposal of any chemicals with one or more of these hazards.

Guides

Green cleaning and sanitary paper products are handled by PCC's custodial staff. Integrated Pest Management, which covers the ways in which in which our grounds and landscaping crew handles chemical usage is discussed here.

Community Benefits

- Better for occupant and worker health
- Reduces pollution, particularly to our waterways

Integrated Pest Management

PCC limits use of pesticides in accordance with the college's Integrated Pest Management Plan and in alignment with Oregon's School Integrated Pest Management Law, (Oregon Revised Statutes Chapter 634.700–634.750). The college has adopted a list of low-impact pesticides that cannot have any of the following:

(A) Contain a pesticide product or active ingredient that has the signal words "Warning" or "Danger" on the label;

(B) Contain a pesticide product classified as a human carcinogen or probable human carcinogen under the <u>United States Environmental Protection</u> <u>Agency (EPA) 1986 Guidelines for Carcinogen Risk</u> <u>Assessment</u>; or

(C) Contain a pesticide product classified as carcinogenic to humans or likely to be carcinogenic to humans under the <u>EPA 2003 Draft Final</u> <u>Guidelines for Carcinogen Risk Assessment.</u>

Resources

- <u>Environmental Health and Safety</u>
- <u>Grounds & Landscaping</u>
- <u>Green Cleaning</u>
- <u>School Integrated Pest Management Law</u>
- <u>United States Environmental Protection</u>
 <u>Agency (EPA) 1986 Guidelines for Carcinogen</u>
 <u>Risk Assessment</u>
- <u>EPA 2003 Draft Final Guidelines for</u> <u>Carcinogen Risk Assessment</u>
- <u>PCC's Environmental Health and Safety</u> <u>Department</u>
- OSU Extension Services (IPM in Schools)

Grounds and Landscaping

Introduction

PCC's campuses are part of a larger interconnected ecosystem and the actions PCC take have ripple effects throughout the natural environment. PCC will protect and enhance the ecosystems and green spaces the college owns, manages, or impacts, in order to enhance regional biodiversity and personal well-being.

PCC's goals are to provide healthy, toxic-free, resource efficient and aesthetically pleasing outdoor spaces that encourage native landscapes, build a sense of place, encourage outdoor learning and support mental and physical health for the college community.



Resources

- <u>Tree Campus USA</u>
- <u>Bee Campus USA</u>
- Integrated Pest Management Plan at PCC
- <u>PCC's 2019 Integrated Weed Management</u>
 <u>Plan</u>
- <u>Chemical Acquisition</u>



PCC accomplishes this by building and maintaining soil health over time, minimizing erosion, supporting local biodiversity, providing aesthetic value and reducing heat island effects. Our landscaping principles include designs and practices that minimize the demand for water and synthetic chemicals, avoid the introduction of invasive plants, promote pollinator health, limit the use of conventional turf, promote the installation of drought-tolerant plants and water carefully by using efficient watering methods and techniques.

Much of PCC's grounds are in use for academic purposes such as plant identification. In addition, PCC has learning gardens at each campus and the Newberg Center. Food producing areas are not treated with pesticides. The entire district is managed under an <u>integrated pest management plan</u>. For further information about PCC's Integrated Pest Management program, please see the Chemical Acquisition guide.



Green Buildings



New Construction and Major Remodels

New construction and major renovation at PCC strives to meet or exceed the <u>US Green Building Council's</u> <u>Leadership in Energy and Environmental Design</u> (LEED) Certification Standards for Building Design and Construction at the silver level or above. This standard contains minimum requirements for all certification levels across nine impact categories:

- Location & transportation
- Sustainable sites
- Water efficiency
- Energy & atmosphere
- Materials & resource
- Indoor environmental quality
- Innovation
- Regional priority
- Integrative process

Based on the number of points achieved through planning, design and construction, a project may pursue certification at one of four LEED rating levels: Certified, Silver, Gold and Platinum. PCC has initiated a tiered approach to LEED Certification based building on size:

- 0 5,000 SF Not Certified
- 5,000 15,000 SF Certified Level
- 15,000 40,000 SF Silver Level
- Above 40,000 SF Gold, Platinum Levels (case-by-case)

For information about green buildings at PCC, please contact the PCC Sustainability Department at: <u>sustainability@pcc.edu</u> or the Planning & Capital Construction office.

Did you know?

Over 490,816 square feet of PCC's Buildings are LEED Certified Silver or better as of 2021, nearly 20% of the square footage of PCC-owned buildings.

Community Benefits

A <u>2014 UC Berkeley study</u> found that by building to LEED standards, buildings contributed 50% fewer greenhouse gas emissions (GHGs) than conventionally constructed buildings due to water consumption, 48% fewer GHGs due to solid waste and 5% fewer GHGs due to transportation.

LEED buildings save money, create happier, healthier and more productive occupants, have higher quality indoor environmental quality, reduced pollution, conserve water, reduce waste, lower vehicle vehicles traveled and help stimulate the green economy.



Resources

- <u>PCC's Green Building Features Page</u>
- Quantifying the Comprehensive Gas
 <u>Co-Benefits of Green Building</u>

Building Materials: Finishes and Furniture

Introduction

When purchasing furniture, PCC and Facilities Management Services (FMS) employees give preference to furniture that contains recycled content or sustainably harvested bio-based materials; is made from 100% Forest Stewardship Council-certified wood (FSC-certified); is refurbished, is <u>Cradle to Cradle</u> <u>Certified</u> and/or is sourced (extracted, manufactured and purchased) within 100 miles of the campus. FMS also frequently repurposes and reuses furniture on campus through our surplus program. For assistance with getting a surplus property item, please email <u>stores@pcc.edu</u>.

FMS specifies flame retardant-free furnishings (where feasible) in new construction and remodels and applies. FMS staff considers the entire life cycle of the product, from materials to disposal.

Finishings and Exterior Furniture

In general, adhesives, sealants, paints and coatings shall comply with low-volatile organic compounds (VOCs) and low-emitting requirements. Paints, Flooring, Composite Wood, Gypsum Board, Acoustic Ceiling Tile, Thermal Insulation and Acoustic Insulation shall comply with <u>California Department of Public Health</u> <u>Standard Method v1.2 emissions testing standards.</u> Paints, Flooring, Composite Wood, Walls, Ceilings and Insulation shall comply with emissions testing standards.

For all projects, all wood should be priced as FSC certified in order to analyze cost impacts of FSC wood procurement. FSC wood procurement will be analyzed for each project, with a preference for at least 50% FSC wood.

Exterior Landfill, Recycling Receptacles and Recycling and Garbage Enclosures

Where requested by PCC, a single combination landfill and recycling receptacle shall be used. Receptacles should not be placed above storm drains.

Furnishings

PCC is working to reduce the number of toxic chemicals used in the furniture products we buy. Other considerations include the materials, the sourcing of materials, production methods, finishes, life cycle impacts and product emissions. Adhesives, sealants, paints and coatings shall comply with low-Volatile Organic Compounds (VOCs) and low emitting standards in specification section 01 81 13 Sustainable Design Requirements. Refer to <u>PCC Design &</u> <u>Construction Standards</u> (Division 12 - Interior Furnishings) for further information about sustainability requirements.

PCC's strategy for sustainable purchasing includes design considerations that use recycled materials in the manufacturing process, purchasing products that can be disassembled and recycled after their useful life, purchasing products that contain materials without toxins or make fewer greenhouse gas emissions in the manufacturing process. Sustainable furniture design is a closed-loop cycle in which materials and products are perpetually recycled so as to avoid disposal in landfills.

Community Benefits

- Health and Wellness benefits from better indoor air quality
- Minimize harmful waste
- Healthier for surrounding environment
- Cost efficiency
- Materials last longer
- Reduced negative impact on environment

Forest Stewardship Certified Wood

Wood certified by the <u>Forest Stewardship Council</u> (FSC), a non-profit organization dedicated responsible management of the world's forest via timber certification, has low toxic material levels, is locally manufactured and are durable enough to last. For all projects, all wood should be priced as FSC certified to analyze cost impacts of FSC wood procurement. FSC wood procurement will be analyzed for each project, with a preference for at least 50% FSC wood. Refer to <u>PCC Design & Construction Standards</u> (Division 12 -Interior Furnishings) for further information about sustainability requirements.

Product Considerations

Here are some things PCC takes into account when choosing furniture products.

Materials: In addition to being durable, the ideal product should have little to no environmental impact in terms of sourcing. Are the raw materials renewable, recyclable, nontoxic? Does their processing create toxic pollution? Have they been 3rd party certified?

Production methods: Ideal products have a small carbon footprint and that have a positive or neutral social impact (fair trade, fair made)

Finishes: The ideal product uses low or nontoxic ingredients and has minimal or no off-gassing of harmful fumes (avoids any Halogenated and Organophosphate Flame Retardants, Perflourochemicals, Chlorinated Compounds, Volatile Organic Compounds, Phthalates and Heavy Metals). Life cycle: The ideal product's impact from cradle to grave, end of life is zero. Is the product reusable, recyclable, biodegradable? Locally sourced? Is the design enduring? Are the materials and construction durable?

In pursuing the goals of these standards PCC shall reduce the number of toxic chemicals used in furniture products, like those identified in the <u>ANSI/Business</u> and Institutional Furniture Manufacturer's <u>Association (BIFMA) Standard M7.1</u>, the <u>State of</u> <u>California' ANSI/Business and Institutional Furniture</u> <u>Manufacturer's Association (BIFMA) Standard M7.1s</u> <u>Proposition 65 List</u>, the <u>Living Building Challenge</u> <u>Red List</u> and other relevant lists of chemicals of high concern.



For Further Thought

In addition to thinking about the material options, consider how the material will be cleaned, delivered and the values of the company offering the contract. How local are they? How big? Who owns it (e.g. minority, woman, veteran owned)? Do they purchase green energy? Are there published labor and human rights standards that clothing suppliers must meet. Consider adding a stated preference for organic, bio-based, or recycled content textiles.

Cushions

- Typically, most commercial furniture uses polyurethane foam due its better loft quality.
- Be on the lookout for opportunities to exclude inner cushion materials made of polyurethane foam, because it is a plastic polymer containing the toxic chemicals methyloxirane (aka propylene oxide) and toluene, both are carcinogens.
- Avoid soy-based foam, as it typically only contains a maximum of 20% soy, (the remainder is polyurethane). Soy is also problematic due to pesticide use, appropriation of food stocks and deforestation. In addition, 90% of soy crops produced in the United States are genetically modified.
- Natural rubber, known as natural latex, a renewable, sustainable resource harvested from the rubber tree may become commercially available. If so, ask for Dunlop latex to assure there are no synthetic chemicals added. <u>Global</u> <u>Organic Latex Standard certified (GOLS)</u> may be the cleanest option.

Coils

Coils can be made of recycled metal. Batting or padding can include wool, coconut fiber (aka coir), kapok, bamboo, or cotton (preferably organic). Down has <u>ethical issues around production in terms of animal</u> welfare and lack of regulations.

Upholstery

Upholstery fabric should have a minimum double rub durability rating of 100,000. In addition, it should be made of nylon, polyester, or a blend with rayon or acrylic and solution dyed. PCC prefers that upholstery fabric contains both pre and post consumer content. Where available, <u>choose Cradle to Cradle (C2C) Certified</u>, a complete life cycle standard requiring fabrics to be upcyclable to another use. Avoid synthetics like petroleum-based polyester, unless it's made from recycled bottles or fiber. Avoid vinyl (PVC), which is produced with highly toxic dioxin.

Leather is a very durable upholstery material; however the college does not use it due to expense and lasting durability. Seating in public areas should use a non-woven, coated, wipeable fabric (polyurethane can flake). A polyurethane with polycarbonate content or a silicone product can be a more sustainable option, e.g. sileather/silica. In addition to concerns about animal welfare, most leather production employs chromium and other toxic chemicals in the tanning and dying processes and often uses child labor. If the college chooses to use leather, vegetable tanned, chromium-free leathers are preferable, but be prepared to deal with stiffer leather that needs to be broken in. There are also eco certifications for leather, like <u>OEKO-TEX</u> or the <u>European Naturtextil IVN</u>, assuring low impact production and protection of workers' health.



Did you know...

Carpet tiles can be rotated to prolong the carpet life and "balance the wear," similar to rotating your car tires!

Building Materials: Masonry, Metals and Paint

Masonry

Refer to <u>PCC Design & Construction Standards</u>

(Division 4 - Masonry) for further information about sustainability requirements.

Metals

A goal is to use steel with 80% recycled content. Refer to <u>PCC Design & Construction Standards</u> (Division 5 -Metals) within PCC's for further information about sustainability requirements.

Paint: Purchasing Interior/Exterior Architectural Paint Products

All facilities painting should be coordinated through Facilities Management Services Project Development and Construction. FMS works to use low-VOC (volatile organic chemical) paints that comply with the current standards set forth by the California South Coast Air Quality Management rule 1113 for Architectural coatings. FMS also gives preference to recycled and/or re-blended latex paints with low-VOC properties. General Paint and Primer to be Greenguard Gold Certified and low or no VOC. Refer to <u>PCC's</u> <u>Design & Construction Standards</u> (Division 9 -Finishes) for further information about sustainability requirements.

Questions regarding any old or unused paint should be directed to <u>PCC's Environmental Health & Safety</u> <u>Department</u>.



Resources

PCC's Green Building Features

Building Materials: Appliances, Minor Equipment, Lamps and Water Fixtures.

Appliances and Minor Equipment

When constructing new buildings, PCC specifies appliances that are <u>Energy Star</u> compliant. Energy star ratings are given for both residential and commercial grade equipment and cover items like refrigerators, ovens, air conditioning units, televisions, etc. The Facilities Management Services Grounds & Maintenance Division gives preference to electric and low-carbon equipment over more energy and environmental intensive options where practicable.

See also our guidelines on <u>Personal Lighting</u>, <u>Appliances and Electronics</u>.

Lamps

Facilities Management Services gives preferences for energy efficient and mercury free lighting including indoor and outdoor fixtures as well as portable and hard-wired fixtures. Low-emitting diode lighting (LED) should be the first option at retrofitting and purchasing new units for replacement. For assistance with task lighting, please contact <u>FMS Planning</u>, <u>Design and Construction</u>.

When mercury-containing lamps are required, Facilities Management Services purchases lamps containing less than 70 picograms of mercury per lumen-hour unless nothing meeting this standard is available. Removal and retrofitting to reduce high-mercury lamps; transition to newer technology Light-emitting diode lighting (LED) shall be used practiced for all renovations. Management of any mercury containing lamps should involve <u>EPCC's Environmental Health & Safety Department</u>.

Use LED lighting fixtures that have independently replaceable LED lamp modules. Also, lighting in the entries should use lamp technology that is compatible with daylighting controls. Refer to <u>PCC Design & Construction Standards</u> (Division 26 - Lighting) within PCC's for further information about sustainability requirements.

Water Fixtures

All irrigation controllers and sprinkler heads are <u>US</u> <u>Environmental Protection</u> <u>Agency (USEPA)</u> <u>WaterSense</u> labeled products. When purchasing plumbing fixtures–including toilets, urinals, showerheads and faucets. Facilities



Management Services employees give preference to US EPA WaterSense labeled products. Provide commercial grade low flow, WaterSense Labeled fixtures as described in the PCC Design & Construction Standards. The maintenance team at FMS has installed low flow aerators on our bathroom and break area faucets. FMS has also installed low flush parts in toilets and urinals, which reduces the number of gallons per flush. There are either metering faucets (which are the spring loaded handles that limit the water being used) or sensor operated faucets to help cut down on wasted water. Many toilets have dual flush handles. In addition, the college has installed low flow parts in urinals and toilets. Refer to PCC Design & Construction Standards (Division 22 - Plumbing) within PCC's for further information about sustainability requirements.

Resources

- <u>PCC Design & Construction Standards</u>
- <u>City of San Francisco LED Bulb Standards</u>

Definitions

Contractor: Any person, group of persons, consultant, association, partnership, corporation, or other business entity that has a contract with PCC (including suppliers) or serves in a subcontracting capacity with an entity having a contract with PCC for the provision of goods or services.

Energy Star® compliant products: Products that meet or exceed the U.S. Environmental Protection Agency's (EPA) Energy Star® criteria for energy efficiency. Energy Star is a voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency.

Environmental footprint: The area of productive land and water ecosystems required to produce the resources that one consumes and assimilate the wastes that one produces.

Electronic Product Environmental Assessment Tool (EPEAT): An environmental certification for electronic equipment, commonly computers, developed by the Environmental Protection Agency and maintained by the Green Electronics Council.

Environmentally preferable: Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

Life cycle analysis: The comprehensive examination of a product's environmental and economic aspects and potential impacts throughout its lifetime, including raw material extraction, transportation, manufacturing, use and disposal.

Life cycle cost assessment: The comprehensive accounting of the total cost of ownership, including the initial costs, energy and operational costs, longevity and efficacy of service and disposal costs.

Pre-consumer waste: Material that was discarded before it was ready for consumer use. Pre-consumer waste is the reintroduction of manufacturing scrap (such as trimmings from paper production, defective aluminum cans, etc.) back into the manufacturing process. Pre-consumer waste is commonly used in manufacturing industries and is often not considered recycling in the traditional sense.

Post-consumer material: Material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item (such as food waste from plate scrapings). Post-consumer material is a part of the broader category of Recovered Material.

Post-consumer waste: Finished material that would normally be disposed of as solid waste, having completed its life cycle as a consumer item. Post-consumer waste does not include manufacturing waste.

Practicable: Satisfactory in performance and available at a fair and reasonable price.

Procurement: The act of acquiring goods or services on behalf of the College through a variety of methods including purchase order, procurement card or written contract.

Definitions

Recovered material: Waste material and by-products which have been recovered or diverted from solid waste and includes both Post-Consumer Material and manufacturing or Pre-Consumer Material. Also known as recycled material, recovered, or recycled content.

Recyclable: for the purposes of the Guidelines for sustainable Purchasing recyclable means that the goods can actually be recycled in practice by PCC and its contractors, not just in theory.

Recycled material: Any material that would otherwise be a useless, unwanted or discarded material except for the fact that the material still has useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled.

Recyclable product: A product that, after its intended end use, can demonstrably be diverted from the solid waste stream for use as a raw material in the manufacture of another product, preferably higher value uses.

Recycled paper: A paper product that has no less than:

- 50% of its fiber weight consisting of secondary waste materials; or
- 25% of its fiber weight consists of post-consumer waste.

Watershed Mural

Ryan Piece Acrylic on plywood panels, marine sealant 8' x 16' 2011 PCC Sylvania Campus, Exterior wall on the north side of the PAC Building

Reusable product: A product, such as a washable food or beverage container or a refillable ballpoint pen, that can be used several times for an intended use before being discarded.

Secondary waste materials: Fragments of products or finished products of a manufacturing process that has converted a virgin resource into a commodity of real economic value. "Secondary waste materials" includes post-consumer waste. "Secondary waste materials" does not include excess virgin resources of the manufacturing process.

Sustainability department (SD): A unit within Facilities Management Services that works to ensure environmentally responsible practices are incorporated into campus operations.

Total cost of ownership: A financial determination of the total direct and indirect costs of a product or system over a set period of time.

Sustainable Dining

On hold

On hold





Best Sustainability Practices for Hosting Meetings

Meeting Modality & Transportation

Choosing an appropriate meeting modality has a direct impact on your ability to get a high level of meeting participation, diverse stakeholder engagement and ensure that folks are able to fully participate in meetings and events. Consider surveying your group to determine the best location and meeting mode and coordinate appropriately to optimize benefits.

Remote Meetings

Scheduling remote meetings provides the most flexibility, reduces traffic congestion and supports clean air quality. Furthermore, we know that air pollution in the greater Portland area has an inequitable impact on people of color and lower-income households. Many companies that offer cloud hosted services, including <u>Google</u> and <u>Microsoft</u> have greenhouse gas emissions targets that align with <u>PCC's Climate Action goals</u>. Both companies have promised to remove the sum total of their lifetime carbon emissions from Earth's atmosphere. <u>Amazon Web Services</u>, which hosts Zoom, is on a pathway to use 100% renewable energy by 2025.

Hybrid Meetings

Hosting hybrid meetings can help folks reduce the college's carbon footprint, while accommodating the need for flexible work schedules and in-person engagement. Further, reducing inter-campus travel saves the college money by preventing the need for mileage reimbursement. Consider having your meeting at a central location that serves the majority of attendees and allowing folks on different campuses and/or sites to remote in.



In-Person Meetings

When scheduling an in-person meeting, you can help reduce the college's environmental impact by encouraging employees to use PCC's shuttle service. Scheduling meetings around the current <u>shuttle service</u> <u>schedule</u> is one way to en You may also opt to encourage and/or incentivize carpooling for meetings as well.

Furthermore, schedule meetings so that employees will be avoiding rush hour and school pick-up times. Less time in traffic means reduced commuter stress and reduced time spent idling, which wastes gas, money and creates air pollution.

Catering & Events

When ordering catering for-in person meetings, please check out our <u>sustainable dining guide</u>.

If you are hosting an event, please check out our <u>sustainable events checklist</u>.

zoom

Resources

- PCC Locations
- Zoom at PCC
- Using Google Meets at PCC
- <u>Room Scheduling</u>
- PCC Shuttle Service Schedule
- Best Sustainability Practices for Hosting
 Catered Meetings & Events: Faculty & Staff
- Best Sustainability Practices for Hosting
 Catered Meetings: Students