



# DVC



# SUSTAINABILITY NEWS

News from the Environmental Sustainability Committee

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## 'Tis the Season to Conserve

California is in another exceptional drought. And that means we all need to do what we can to use water wisely. While the recent storms were an excellent start to the rainy season, reservoir storage remains critically low throughout the state. Please continue to reduce water use by 10%.

During this time of year, the average household uses about 150 gallons per day. Check out Contra Costa Water District's water saving tips video series to learn about easy ways you can Conserve in Contra Costa at [ccwater.com/drought](http://ccwater.com/drought).



## What can DVC do to conserve?

On November 18th, the Sustainability Committee met with Cooper Reaves, Water Efficiency Specialist from the Contra Costa Water District. He provided a full report outlining water efficiency for the college.

### Water Consumption and Savings Analysis

- **Meters:** DVC has 2 domestic mixed-use water meters. Majority of landscape irrigation off of recycled water.
- **Savings Potential:** A 25% reduction in water use by DVC should be an achievable goal. A 25% reduction would save approximately 3,107,025 gallons per year and \$16,600 on water charges and up to \$23,000 on wastewater charges.
  - o Total savings of up to \$39,600
  - o Water cost: \$3.99 per unit for domestic, and \$5.61 per unit for wastewater
- **Water Uses:** Majority of consumption is from lavatories and building cooling. Primary uses are lavatories, cooling towers, pool, and irrigation.
  - o It is estimated that for non-baseline summer use: 10% is for the pool, 70% is for cooling, and 20% is for irrigation off domestic water.

# SUSTAINABILITY NEWS



## SUSTAINABILITY *Spotlight*

Featuring an individual or department at DVC that is committed to sustainability.

This issue:

### **BETHALLYN BLACK** DVC Horticulture Department

Bethallyn Black joined the DVC Faculty 11 years ago and worked in horticulture for many years prior to that. Along with teaching, she is dedicated to sustainable practices. Here, she shares a number of habits and tips for students and employees.

#### **Sustainability in Horticulture Courses**

Bethallyn tries to approach sustainability in every aspect. For example, she avoids printing, recycles plastic, has a drop off center for used pots, and teaches students to sterilize them for reuse. The HORT department doesn't purchase any soil amendments in plastic, instead preferring reusable bags. It recycles all potting soil by solarizing it. The instructors do their best to compost everything they get their hands on. Worm bins are used for food waste to make compost tea. They have also moved away from hydrocarbon based fertilizer.

In the future, Bethallyn would be thrilled if DVC could have an on-campus compost system without fragrance or rodents, involving both DVC and College Park students. Then the college could both sell the compost and use it on campus.

#### **Specifically Water Conservation**

In a nursery, plants get water stressed easily. They also have 10% of the roots that plants in ground would have. They are like animals in the zoo, not part of an ecosystem, and need you to give them everything. Thus plants need regular irrigation. HORT tries to water only as needed. Most of campus uses reclaimed water, "which is fabulous. DVC has been using reclaimed longer than almost anyone around us." For most landscaping, it is an excellent, but it has lots of nitrogen and dissolved salts, so HORT can't use it. They use mist systems, which can't use reclaimed because the droplet size is too small. "We are on potable water, and we are very aware of that."

#### **Flex on Laundry Systems**

This spring, Bethallyn will be teaching a flex workshop on laundry to landscape systems in a residential context, in part because she anticipates a long drought. "Losing landscape is devastating to homeowners, especially trees." Last year, state residents showed not much response to conservation requests. Thus, this year she



expects a more "hammer approach."

It is possible to install a laundry to landscape system without a permit that will keep trees alive. "You've paid for the water once, you may as well use it twice."

#### **Other Tips**

In Fall 22 she will be offering a sustainable water class, including subsurface and low flow irrigation systems, metering to monitor where water goes, and techniques to minimize evaporation. Above ground sprinklers waste a third of all the water they consume. The class will also teach mulching to insulate soil temperatures. Despite three bin system and education on campus, Bethallyn said it is difficult training people to recycle and compost. She hopes employees will participate as we progress along this pathway.

For more info, visit: [www.dvc.edu/hort](http://www.dvc.edu/hort)

# SUSTAINABILITY NEWS



## Electric Vehicle Test Drive Event at DVC

On Oct. 25, more than 100 people tried electric cars, bikes, and scooters at an event co-sponsored by DVC's Sustainability Committee.

Students, employees, and members of the community took test drives of models from Tesla, Mini Cooper, Chevy, and several e-bike manufacturers.

Participants also learned about the many financial incentives available to EV buyers, including up to \$12,000 in tax rebates for cars and up to \$300 rebates for e-bikes.

Once rarities on the road, electric vehicles are now commonplace, with dozens of car models available and over 1,000 e-bikes for sale.

Based on survey results from the event, many participants were impressed by their test rides. However, concerns remain about the range of electric cars, which varies between 50 and 300+ miles for a full charge.

Last year, DVC installed 14 additional charging stations at its Pleasant Hill campus, bringing the total to 20, and 10 in San Ramon to accommodate them.

The event was coordinated by Charge Across Town and 511 Contra Costa, two local non-profits that promote the use of electric vehicles, as well as RidePanda, which promotes e-bikes and scooters. DVC's Culinary Department also catered free meals for participants.



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# SUSTAINABILITY NEWS



## The new San Ramon Campus construction offers many sustainable features

The completion of the new Library and Academic Support Center Building has provided access to all the learning resources on campus in one place. The new Learning Commons space provides a long-awaited student Cafe.

### Lighting:

- All luminaires are LED type and have lower energy consumption. All spaces have occupancy sensors for auto-off of luminaires when spaces are unoccupied.
- 10' high storefront windows in Library and Tutorial areas to permit access to daylight and views

### HVAC

- HVAC High Efficiency gas fired water heater
- Efficient fans, air handling units, with Variable Frequency Drives or Electronically Commutated motors.
- Using existing efficient central plant to provide chilled water/heating hot water.

### Using recycled or refurbished materials

- Custom casework in the building uses MDF that has no add formaldehyde, FSC and with high recycled content
- Doors has recycled content and no added urea formaldehyde resins
- Interface World Woven carpet tile is 78% recycled
- Site Furnishings - the wood seats at all benches are 100% Recycled Basralocus species and/or FSC certified Louro Gamela hardwood. The wood top and seats at all picnic tables are sustainably forested and certified FSC 100% Cumaru species.
- Kitchen flooring with low VOC, bio-based content, 10% post consumer recycled content
- Ceiling grid system Prelude XL with high recycled content, acoustic ceiling tile up to 50% recycled content



### Envelope- shading, building orientation, continuous insulation

- Spray foam insulation at roof for a min R-30
- 1.5" Continuous rigid insulation over air water barrier with R-19 thermal batt insulation between wood framing
- Sun control devices on south side of building to reduce southern thermal exposure. Storefront units with 1" insulated glazing unit with high visible light transmittance and low solar heat gain.

### Water/landscaping

- Planting – the plant selection consists of native and/or adapted plant species that are suited to the climate of this region of California. The drought tolerant nature of many of these species will reduce the irrigation water-use demand.
- Irrigation – the use of recycled water eliminates the demand on the domestic water supply for irrigation. Utilizing smart weather sensing control systems for the irrigation. Using subsurface drip line effectively distributes water to plants roots and reduces evaporation, which help aid in water-use reduction.
- Storm water treatment/Reduction in run off – Utilizing permeable pavers throughout the plaza spaces allows for water infiltration to the assist in groundwater recharge while reducing runoff into the storm drain system. Capturing rainwater from the roof and directing into the biofiltration basins, using plants to filter out impurities from the water and providing infiltration into in the groundwater.

## Art & Physical Education complexes

Construction of the Art complex and Physical Education/Kinesiology complex is nearing completion.

The Arts Complex and PEK complex will target LEED Zero status. The building design exceeds the college's expectations for LEED Silver standards and expects LEED Gold V4 certification.

Both will be completed during the Spring 22 semester.

# SUSTAINABILITY NEWS

## New waste sorting in DVC Student Service Center

Over the last year, DVC's custodial department has been piloting a new system of trash collection to encourage recycling and reduce contamination of those containers. Earlier this year and last year they installed "side kick" containers beside desks in Admin, PUMA, and the Student Union that will allow students and employees to sort wastes at their desks.

Now these containers have been added to the Student Services Center. A chart has been affixed to the side of each bin to help employees place their waste into the proper container.

Please help DVC do a better job of segregating wastes, which has been a shortcoming on campus previously. In an audit of several garbage containers during Fall 2019, students found intermingling of wastes that can be recycled with those destined for a landfill. Such intermingling can contaminate recycled products, such as with food or ink, and make them unsuitable for reuse.

The custodial office plans to convert more buildings on campus to this collection method over coming semesters.

Learn more about DVC's recycling efforts

<https://www.dvc.edu/about/sustainability/recycling.html>



# Shrink Drink Think



[www.dvc.edu/sustainability](http://www.dvc.edu/sustainability)



**Shrink**  
your trash  
output and sort  
into the proper  
containers.

**Drink**  
water from  
reusable  
bottles.

**Think**  
before you  
print, and use  
e-documents  
when possible.

## Three bin sorting systems are being installed at the San Ramon Campus

A big round of applause to Moises Rocha at the District Office and Ismail Al-Shabazz - DVC's custodial manager, who want to make the San Ramon Campus a model campus for trash disposal. Together, they will be piloting side kicks and 3 bins inside classrooms, cafeteria and the learning commons. Let's help them out by following all the instructions on the labelled cans.

There are plans to conduct a waste audit at the SRC campus so it can be determined what areas need the most help with sorting signage.

**Together we can make a difference!** Recycling avoids landfills and helps in reducing air and water pollution. Valuable materials like aluminum cans, plastic and glass are reused in other forms and not wasted.