

The background of the cover is a close-up photograph of a tall, slender flower spike. The spike is covered in numerous small, vibrant blue flowers. A single bee is perched on one of the flowers in the lower right quadrant of the image. The background is a soft, out-of-focus bokeh of green and blue, suggesting a natural outdoor setting. The text is overlaid on the left side of the image.

UC Santa Barbara

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# SUSTAINABILITY

2019-2020 Annual Sustainability Report

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To: Chancellor Henry T. Yang

Fm: Chancellor's Sustainability Committee

Re: 2019/20 Annual Sustainability Report

## **MISSION**

The University of California, Santa Barbara is committed to global leadership for sustainability through education, research, and action.

## **OVERVIEW AND HIGHLIGHTS**

The academic year 2019/2020 brought many new challenges but also some important accomplishments. These include:

1. UCSB received the Platinum rating from the League of American Bicyclists.
2. As part of a broader team, UCSB faculty launched the UC-CSU Knowledge Action Network (KAN) for Transformative Climate and Sustainability Education and Action. This is a collaborative effort of UC and CSU educators to scale and intensify California students' literacy in climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and critical sustainability.
3. In 2019, UCSB's total operational greenhouse gas emissions were ~20% below 1990 levels, despite a near doubling in Gross Square Foot.

Like the rest of the campus, our biggest challenge was navigating the impact of the COVID-19 outbreak on sustainability operations. But even with the outbreak of COVID-19 and its unprecedented impact on students, we were able to retain our full student intern workforce of 80, pivoting to working remotely or staffing either the UCSB Food Security and Basic Needs Advising Center (a partnership with the UCSB Food Security and Basic Needs Taskforce) or the The Edible Campus Program Student Farm (a partnership with Associated Students Department of Public Worms and UCSB Sustainability).

One thing we have learned from the COVID-19 pandemic is that the majority of our staff can effectively work remotely. Though we were unable to complete our annual spring transportation survey, we know that campus commuting has been drastically reduced, helping to bring down GHG emissions in scope 3. A recent staff survey indicated that more than 60% of participants had a preference for some level of remote work going forward. The UC System is looking to develop new policies that promote remote work.

Restrictions in travel have also led to radical reductions in GHG emissions from UCSB business air travel. We are hopeful that policies can be developed that will help reduce business travel post COVID and that encourage faculty and staff to take advantage of video conferencing.

In response to COVID-19 restrictions, over the spring and summer, we retooled the statewide California Higher Education Sustainability Conference (CHESC) to be a fully virtual event and are in the process of developing a series of virtual CHESC events this coming year. Our green office certification program (PACES) and green laboratory certification program (LabRATS) are

developing online training on sustainable home office practices and sustainable laboratory practices respectively.

The year 2020 has also brought challenges--but also opportunities--in the form of calls for greater social justice and equity. Students from The Associated Students Environmental Justice Alliance (EJA) presented material to both the Systemwide Sustainability Steering Committee and the Chancellor's Campus Sustainability Committee. They are developing a series of recommendations for updates to the UC Sustainable Practices Policy that encourage the University to address sustainability issues using a social and environmental justice framework.

## BUDGET

Description	2019/2020 Expenses
Director of Campus Sustainability @ 25% Time	\$ 31,323.45
Web/Computing	\$ 10,916.01
Staff for Academic Senate Sustainability Working Group and the Sustainability Internship Program - Katie Maynard	\$ 52,657.29
LabRATS Director	\$ 26,833.52
Chancellor's Sustainability Interns	\$ 5,765.34
LabRATS	\$ 10,546.06
PACES	\$ 8,569.96
Communications Interns	\$ 3,965.64
Intern Work Study Fees	\$ 439.95
Intern Supplies & Expenses	\$ 754.99
Third party Consultant for GHG Emissions	\$ 6,580.00
STARS Reporting Tool	\$ 975.00
UC Santa Barbara Hydration Station Maintenance	\$ 245.60
Travel/CHESC	\$ 4,431.57
<b>TOTAL:</b>	<b>\$ 164,004.38</b>

## CAMPUS SURVEYS

As part of our responsibility to track progress and trends in campus behavior, we typically conduct two annual surveys that help us gauge the need for improvements. Both surveys were postponed due to the ongoing Covid-19 pandemic:

- A transportation survey that captures how faculty, staff and students commuted to and from the campus, including Annual Vehicle Ridership (AVR) was postponed until Spring 2021. This is required by the Office of the President and is vital in calculating campus Greenhouse Gas (GHG) emissions.

- A survey of Faculty, Staff, and Graduate Students attitudes and actions towards matters of sustainability on campus. Undergraduate students are surveyed on odd years and faculty, staff, and graduate students are surveyed on even years. Since the survey was postponed, we now plan to survey Faculty, Staff, and Graduate Students in Spring of 2021 when we survey Undergraduate Students.
- UCSB Sustainability also participated in the Food Security and Basic Needs Taskforce's customer service survey in Spring 2020 evaluating basic needs programs on campus. We gained critical insights related to the student farm and other collaborations.

## AWARDS and RANKINGS

- The League of American Bicyclists awarded UC Santa Barbara with its highest distinction: the title of Platinum-level Bike Friendly University.
- The Green Electronics Council (GEC) recognized University of California Santa Barbara as a five star [2020 EPEAT Purchaser Award Winner](#), in recognition of our leadership in sustainable electronics procurement.
- In September 2019, UCSB was rated No. 43 on Sierra magazine's list of "Coolest Schools." The Sierra Club's official publication recognizes 201 colleges and universities.
- CHESC Best Practice Award in Interdisciplinary Academics (2020) for UC-CSU NXTerra – California's New Climate Crisis Teaching Tool - UC-CSU NXTerra Co-Director Dr. John Foran is a distinguished UCSB Professor of Sociology and Environmental Studies.
- CHESC Best Practice Award for Sustainability Innovations as a Multi-campus Partnership (2020) - UC Santa Barbara and UC Los Angeles - Merging Social and Environmental Sustainability in UC Supply Chains

## COMMUNITY ENGAGEMENT

UCSB Sustainability hosted the following key events:

- The 9th Annual Central Coast Sustainability Summit took place at UCSB in Fall 2019 – The Central Coast Sustainability Summit is an annual conference and the goals include sharing best practices and building collaborations to address complex environmental and economic issues in our region. The event brought together key stakeholders from local government agencies, elected officials, chambers of commerce, nonprofit organizations, campuses, utility companies, and private companies. The keynote speaker was Senator Fran Pavley, Environmental Policy Director, USC Schwarzenegger Institute.

Other Activities:

- Advisory Board Member for the Santa Barbara County Food Action Network
- Member of Cooperative Santa Barbara's Food Working Group
- In partnership with the AS Department of Public Works, formed an Advisory Board for the Edible Campus Program Student Farm to connect student leaders with local experts
- Member of the Santa Barbara County Regional Climate Collaborative
- Member, Sustainable Purchasing Leadership Council, UC Santa Barbara

## STATE & NATIONAL LEADERSHIP

UCSB Sustainability hosted the following events aimed at developing and building on statewide partnerships:

- Hosted the California Higher Education Sustainability Conference (CHESC). This unique event is jointly organized by independent / private colleges, California Community Colleges, California State Universities, and the University of California creating the opportunity for dialogue across institutions.

UCSB Change Agent Leadership on UC wide Committees:

- Co-Chair of the UC Sustainable Operations and Green Laboratory Working Group, Katie Maynard (Through January 2020)
- Co-Chair of the Best Practices in Campus Gardens and Farms Working Group, Katie Maynard (Through January 2020)
- Co-Chair of the UC Sustainable Procurement Working Group, Heather Perry
- Co-Chair of the UC Climate Change Working Group, Jewel Persad
- Co-Chair of the UC Waste Working Group, Matt O'Carroll
- Chair of the Staff Engagement and Climate Action Planning Pillar of the Global Climate Leadership Council, Jewel Persad
- Co-Chair of the UC-CSU Knowledge Action Network, Dr. John Foran
- Member, Global Climate Leadership Council (GCLC) Faculty Education and Engagement (FEE) Working Group, Dr. John Foran and Katie Maynard
- Member, Global Climate Leadership Council (GCLC) Student Education and Engagement (FEE) Working Group, Dr. John Foran and Katie Maynard
- Member, Global Climate Leadership Council (GCLC) and chair of the Climate Action Planning and Staff Engagement Pillar, Jewel Persad
- Member, Global Climate Leadership Council (GCLC), Dr. David Lea.
- Member, UC Systemwide Sustainability Committee, Garry Mac Pherson

## CAMPUSWIDE SUSTAINABILITY UPDATES BY FUNCTIONAL AREAS

### ACADEMICS

#### ACCOMPLISHMENTS (2019/2020)

- Dr. John Foran was nominated to the UC-wide Academic Senate Climate Crisis Task Force.
- Formal public launch of the UC-CSU KAN NXTerra Digital Platform and Knowledge Action Network on November 19, 2019. The UC-CSU Knowledge Action Network (KAN) for Transformative Climate and Sustainability Education and Action is a collaborative effort of UC and CSU educators to scale and intensify California students' literacy in climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and critical sustainability.
- Selection and support of UC Carbon Neutrality Initiative and UC Global Food Initiative Fellows for the 2019-2020 academic year.

- UCSB's Environmental Humanities Initiative hosted the Humanities on the Brink: Energy, Environment, Emergency: A Nearly Carbon-Neutral Conference, sponsored by the Association for the Study of Literature and Environment (ASLE) July 10th-July 30th, 2020.
- In partnership with the AS Department of Public Worms, partnered with 6 faculty to give 20 class visits and 2 class presentations for the Edible Campus Program.

## ONGOING INITIATIVES

- UC Carbon Neutrality Initiative and UC Global Food Initiative Fellowship Program

## LOOKING FORWARD

- New Partnership with the UC-wide Academic Senate Climate Crisis Task Force

## ENERGY & CLIMATE

### ACCOMPLISHMENTS (2019/2020)

- In 2019, UCSB's total operational greenhouse gas emissions were ~20% below 1990 levels, despite a near doubling in GSF.
- In July 2020 UC Santa Barbara joined the UC Wholesale Power Program which provides 100% carbon-free power verified to The Climate Registry (TCR) standards. The University of California Office of the President (UCOP) administers the Wholesale Power Program (WPP) on behalf of participating University of California campuses and medical centers. Operating as a California Electric Service Provider (ESP), the WPP has been providing UC-procured electricity via "Direct Access" service since 2015.
- Three Energy Efficiency projects funded through the Conservation and Reinvestment fund were completed: The PSB-North & Chemistry Ventilation Optimization project, Recreation Center Boiler Efficiency Upgrade, and the Campbell Hall Lighting replacement project.
- In 2018/2019 we conducted a feasibility study of local projects that could be certified as offsets and submitted several projects for grant funding through the UC Carbon Neutrality Initiative and in 2019/2020 two UCSB initiatives projects were selected to receive grant funding. John Bowers' Unite to Light solar lantern project and Sangwon Suh's Adopt a Cookstove project.

## ONGOING INITIATIVES

- UCSB is a participant in the Clean Energy Optimization Pilot (CEOP) with Southern California Edison & SoCalGas. This four-year, \$18 million pilot program provides incentives to select CSU and UC locations to identify and implement actions to reduce greenhouse gas (GHG) emissions.
- Continue to implement energy efficiency actions in buildings and infrastructure systems to reduce the location's energy use intensity by an average of at least 2 percent annually. Through the Conservation and Reinvestment Fund, energy efficiency work the

campus has a mechanism for investment of savings delivered by previously implemented projects into further energy efficiency upgrades.

- Continue to promote energy conservation through LabRATS, PACES, the Residential Hall & Apartment Complex energy competition, and other energy reducing programs.
- For the past two Spring quarters, we have piloted a program called “Cool Block” in Professor Foran’s cross-listed course Environmental Studies/Sociology 130SD: The World in 2025: Systemic Alternatives to over 250 students in all.

## LOOKING FORWARD

- Explore potential grant collaborations for energy storage on campus
- Create a campus Climate Resiliency and Adaptation Plan

## FOOD

### ACCOMPLISHMENTS (2019/2020)

- Language added to the UC wide policy on sustainable practices to include:
  - Each campus and health location shall strive to reduce greenhouse gas emissions of their food purchases through globally- inspired, culturally- acceptable, plant-forward menus. Campuses and health centers shall establish a baseline and goal in 2020.
  - Each campus foodservice operation shall strive to procure 25% sustainable food products by the year 2030 as defined by AASHE STARS and each health location foodservice operation shall strive to procure 30% sustainable food products by the year 2030 as defined by Practice Greenhealth, while maintaining accessibility and affordability for all students and health location’s foodservice patrons. Residential Dining is currently reporting 19.5% sustainable food using the new criteria.
- Launched a new food recovery program at Portola Dining Commons. Completed 11 food recoveries between December and April. Recovered ~300 pounds of food.
- Established EBT at Tenaya Market & Eatery to provide nutrition assistance to our students.
- Miramar Food Pantry saw a 16.9% increase in registered students from 18-19 to 19-20.
- Campus Dining continues to partner with local farmers to support our community.
- In partnership with the AS Department of Public Worms, installed a Greenhouse and 16 additional beds at the Edible Campus Program Student Farm. Farm determined to be an essential operation.
- In partnership with the AS Department of Public Worms, Engaged 1,649 people in the UCSB Edible Campus Program (of which 901 were college students).
- Hosted our first fully virtual gardening workshop series, UCSB Grows.
- Supported the UCSB Food Security and Basic Needs Taskforce with food distributions, peer advising, and grocery delivery services throughout COVID.

## ONGOING INITIATIVES

- A variety of food recovery efforts through the student-led organization, Food Cycling, and the Food Recovery efforts of the UCSB Dining Commons through HDAE.
- Partner of the UCSB Food Security and Basic Needs Taskforce.

## LOOKING FORWARD

- Expansion of virtual co-curricular programming
- Continued engagement as a partner of the UCSB Food Security and Basic Needs Taskforce to ensure that students have access to healthy and sustainable food through COVID restrictions and in normal operations.
- Develop stronger partnerships with local community organizations on co-curricular programming
- Expand hydration stations on campus through the work of the UCSB Healthy Beverage Initiative.

## LANDSCAPE & BIOTIC ENVIRONMENT

### ACCOMPLISHMENTS (2019/2020)

- Grounds (includes Design, Facilities and Safety Services (DFSS) and Housing, Dining and Auxiliary Enterprises (HDAE)) and Cheadle Center For Biodiversity & Ecological Restoration (CCBER) continue to replace non-native plants with natives or trees with teaching potential. CCBER eradicated one acre of invasive iceplant on campus point and 3 acres of mustard (*Brassica nigra*) on South Parcel. DFSS removed 31 hazardous blue gum Eucalyptus trees and replaced them with 31 Lemon-scented gum and Quercus trees. Grounds teams converted two more segments of campus (Santa Rosa/College of Creative Studies and Santa Catalina/San Joaquin) to reclaimed water for irrigation.
- Grounds Teams and CCBER worked together to address concerns about the use of Glyphosate as a herbicide through an integrated pest management committee (IPM). Majority of campus landscaping is now maintained without Glyphosate by switching to more hand weeding or finding replacement herbicides. Training and safety has increased as a result of the initiative. The impact includes more tolerance of weeds on campus and increased labor costs.
- Former green waste area converted to native habitat with oak woodland and grassland.
- Population of the endangered Ventura Marsh Milk-Vetch (*Astragalus pycnostachyus* var *lanosissimus*) was established and is thriving and reproducing on the North Campus Open Space Restoration Area. Campus management practices enhance the breeding of endangered birds (Western Snowy Plover and Belding's Savannah Sparrow), endangered fish (Tidewater Goby) and endangered bees (*Bombus crotchii*).

## ONGOING INITIATIVES

- With funding from TGIF, DFSS and HDAE (aka Campus Grounds) have been converting blowers, weed whips, hedge trimmers and lawn mowers to battery-powered or plug-in electric equipment where appropriate and using in landscapes with a lot of hardscape or where there are noise sensitivities. Once limitations are addressed, this equipment can be more broadly used. Limitations include: no mobile charging stations, the short battery life, and the equipment is less durable for rugged applications.
- Grounds continue to convert unnecessary and smaller patches of lawn to more sustainable substrates that include wood chips and low-water ground covers.
- Grounds and the Bio-Greenhouse have been collaborating to grow exotic tree species which can be installed as part of expanding the value of campus landscape as a teaching opportunity. This complements the current extensive use of CCBER-managed natural areas as a living laboratory.
- Documentation of the value of landscapes for native pollinators is on-going. A recent finding is that the endangered Crotch's Bumble bee (*Bombus crotchii*) has been documented on native plants in several campus restoration areas.
- CCBER continues to publish NCOS News, an email newsletter with more than 700 subscribers, that connects the community and campus to progress on the North Campus Open Space Restoration project and to the sustainability goals therein.

## LOOKING FORWARD

- Campus Planning and CCBER will be releasing an Open Space Management Plan that will (a) help define goals for the open space areas that don't already have management plans and (b) lead to regular monitoring of progress towards the goals identified in the plan.
- North Campus Open Space will open another trail and several visitor-serving amenities, including a visitor plaza, interpretive signage, a discovery trail, the Mesa Trail, an outdoor classroom and, with grant funding, a parking area and all-terrain wheelchair. These amenities will serve UCSB students, K-12 students from diverse backgrounds, and community members.

## PROCUREMENT

### ACCOMPLISHMENTS (2019/2020)

- UC Santa Barbara joined [SmartWay's Transport Partnership as an Affiliate](#). EPA's SmartWay Transport Partnership is a market-driven initiative that empowers businesses to move goods in the cleanest, most energy-efficient way possible to protect public health and reduce emissions. As a SmartWay Affiliate, UC Santa Barbara educates its suppliers and stakeholders on the benefits of the SmartWay Program and its accomplishments.
- Received [2020 EPEAT Purchaser Award](#) from the Green Electronics Council (GEC), the non-profit organization that manages the EPEAT ecolabel. EPEAT allows the University

to efficiently address the lifecycle impacts of electronics purchased by campus, including computers, displays, printers, copiers, mobile phones, servers, and televisions.

- Received a [CHESC Best Practice Award](#) for Sustainability Innovations as a Multi-campus Partnership (2020) with UCLA, for Merging Social and Environmental Sustainability in UC Supply Chains.
- Became the second UC campus to sign the [Safer Furniture Pledge](#) through the Center for Environmental Health, committing to reducing chemicals of concern through campus furniture purchasing. [The pledge](#) demonstrates UCSB's recognition that flame retardant chemicals, antimicrobial treatments, and fluorinated compounds used as stain/water resistant treatments offer no measurable safety benefits, and that these chemicals, along with PVC and Volatile Organic Compounds (VOCs) including formaldehyde have adverse impacts on public health and the environment.
- Extended the pilot for a curated shopping platform (<https://uc.ecomedes.com/>) for users to search products that meet the UC's Required or Preferred Green criteria in one place, with 240 new users in California since July 1st, 2019.
- Completed the addition of a new ad-hoc routing step in the Gateway requisition workflow. This will allow inventorial equipment purchases over \$5,000 that may be eligible for [Energy Star certification](#) to be reviewed and approved by the campus Energy Manager or Sustainable Procurement Program Manager. This enhancement has increased campus awareness of the UC's Energy Star Policy<sup>1</sup> and engagement with the University's primary lab supplies and equipment distributors.
- Completed the addition of Environmental Health & Safety's Chemical Surplus catalog in UCSB's eProcurement system, Gateway. These surplus chemicals are now searchable to all campus shoppers who may not be familiar with the program, and who would otherwise be looking to buy new chemicals. The chemicals are available at no cost, and a purchase order is created and sent to EH&S notifying them of the order. Ninety-five pounds of chemicals have been repurposed since the addition of the program into Gateway.
- In collaboration with Grounds and Custodial Services and an environmental consultant that provides evidence-based, third-party validation of cleaning and disinfecting methods, supervised an undergraduate biology student in conducting surface sampling of identified priority restrooms and athletic facilities. Samples were processed at a microbiology laboratory accredited by ANSI, IAS, and OSHA in the US. The results and analysis found no methicillin resistant *Staphylococcus aureus* (MRSA) colonies on the sampled surfaces.



## ONGOING INITIATIVES

- Sustainable Procurement Training continues to be offered several times a year through the UC Learning Center, aimed at educating department buyers on requirements and goals of the UC Sustainable Procurement Policy and Guidelines, and providing assistance and resources for helping achieve these campus goals.

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<sup>1</sup> ENERGY STAR® and WaterSense® certified products are required across all applicable product categories where price comparable (based on a total cost of ownership assessment) and consistent with the needs of University researchers, faculty, and staff. [UC Sustainable Procurement Guidelines](#).

- Updated the new supplier Business Information Form to include language about the UC system's selected supplier sustainability assessment platform, in hopes of engaging more suppliers early on. Looking to identify priority bid opportunities where the supplier sustainability assessment can be included as a condition of award, following the model demonstrated this year by UCOP Strategic Sourcing. Also looking to engage the Bookstore licensees in the assessment process.
- As part of the UC Procurement Policy and Legal Documents Team (PPLD), UCSB's Purchasing and Contracts Manager is heading a subcommittee to review a proposed small business set-aside<sup>2</sup> program aimed at supporting UC's 25% Economically and Socially Responsible spend goal, bringing operational efficiencies, strengthening the local economy and supporting supply chain resiliency.
- Continue to support sustainable procurement of lab supplies and equipment through participation in the UC General Lab Supplies RFP Sustainability Subcommittee and the Sustainable Procurement Leadership Council Lab Action Team.

## LOOKING FORWARD

- Integrate campus surplus offerings as an internal hosted catalog in Gateway, following the model demonstrated with the UCSB Chemical Surplus catalog. This would help advertise [UCSB Surplus Sales offerings](#) across campus departments to those who may not otherwise shop using the traditional Surplus marketing platforms.
- Increase utilization of the sustainable product search platform, and integrate it more seamlessly into the requisition workflow to help drive green spend.
- Support new businesses through the sustainability assessment program, and promote suppliers who have demonstrated improvement and are achieving above average scores.
- Monitor supplier compliance with the UC foam ban and new single use plastics policy.
- Continue to drive spend on sustainable products and with small, diverse, and/or sustainable suppliers.
- Continue to partner with other institutions and researchers on reducing waste and emissions resulting from the University's purchasing.

## SUSTAINABLE TRANSPORTATION

### ACCOMPLISHMENTS (2019/2020)

- Secured \$12,500 from TGIF for the Alternative Vehicle Incentive Program. The program offers departments a ~10% rebate on their purchase of an alternatively fueled vehicle. Offering an additional incentive helps push departmental car buyers away from purchasing conventional gas powered vehicles in favor of EVs/hybrids, or greener options.

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<sup>2</sup> Small business set-asides are purchases and/or agreements "set aside" by an organization that must be awarded to small businesses, in order to help them compete for the goods and services an organization procures annually. Set-asides are awarded across a variety of commodities, and other disadvantaged businesses may be given special consideration.

- Added a course through the First Year Experience (FYE) program titled "Get Moving with TPS: Explore Transportation Alternatives".
- With Electric Vehicle (EV) adoption rapidly increasing, EV Supply Equipment also known as chargers have been added to parking lots 1, 10, 18, 22 50, 58, 59, and 60 to better meet demand. We now offer over 90 Level 2 EV charging spaces.
- Electric vehicles have been added to the campus fleet with the purchase of vehicles such as Chevy Bolt and used Nissan Leaf. The fleet campus also includes numerous Low Speed Electric Vehicles, and spaces to charge them.
- Draft Bicycle Plan introduction that describes many of the current conditions on campus
- Platinum Recognition as a Bicycle Friendly University by the League of American Bicyclists

## ONGOING INITIATIVES

- Continue to promote discount options for Plug-in Electric vehicles to UC employees
- Assess the annual mode split survey and look for areas of improvement
- Continue to work with local vendors to provide employee discounts on electric assist bicycles and test rides and demo days.
- Evaluate the feasibility of developing a travel mitigation fund similar to what was developed at UCLA.

## LOOKING FORWARD

- Develop a Sustainable Transportation Master Plan;
- Assess the feasibility of providing renewable diesel for campus fleet ( we would see at least a 33% GHG reduction with RD);
- Assess the feasibility of installing an E-85 tank;
- Continue assessment of electric scooter-share and work with other UCs on policy modifications.
- Continue to provide bicycle safety education;
- Continue to partner with AS Bikes and CSOs on quarterly bicycle lot clearing program;
- By 2025, zero emission vehicles or plug-in hybrid vehicles shall account for at least 50% of all new light-duty vehicle acquisitions;
- By 2025, strive to reduce our percentage of employees and students commuting by 10% relative to our 2015 SOV commute rates;
- By 2050, strive to have no more than 40% of our employees and no more than 30% of all employees and students commuting to campus by SOV;
- Consistent with the State of California goal of increasing alternative fuel-specifically electric-vehicle usage, promote and purchase and support investment in alternative fuel infrastructure;
- By 2025, strive to have at least 4.5% of commuter vehicles be ZEV;
- By 2050, strive to have at least 30% of commuter vehicles be ZEV;

## **WASTE**

### **ACCOMPLISHMENTS (2019/2020)**

- Launched a composting program in the UCSB Library after finding that 80% of the waste collected at the UCSB Library can be diverted from the landfill. Compost bins are now located on the 1st, 2nd, and 4th floors, and most are near the elevators.
- Launched the Eco-To-Go reusable container program at the Coral Tree Cafe.
- Completed the Zero Waste Master Plan.
- Expanded the Apartment Compost Initiative to its second location - Santa Ynez Apartments.
- Hosted 4th Annual Zero Waste Festival.
- Added 7 new indoor compost bins to offices on campus.
- Added 2 new electronic waste bins to offices on campus.

### **ONGOING INITIATIVES**

- Creation of new signage to roll out on both indoor and outdoor waste receptacles.

### **LOOKING FORWARD**

- Continue adding compost receptacles to both indoor and outdoor campus locations.
- Continue expanding the Apartment Compost Initiative to more apartment complexes.
- Launch Eco-To-Go and other reusable programs in more cafes on campus.

## **WATER**

### **ACCOMPLISHMENTS (2019/2020)**

- Extended recycled water infrastructure to 17,540 ft<sup>2</sup> of turf, and 41,762 ft<sup>2</sup> of ornamental shrubs, that are currently being irrigated with potable water. This project will save 655,829 gallons of potable water annually.
- Installed 6 WaterEco Savings System Retrofits on AutoClaves
- Secured a grant from the Green Initiative Fund for \$3,616 to install an additional WaterEco unit.

### **ONGOING INITIATIVES**

- Calibration of Existing Industrial Water Meters and installation of new ones where needed, which will ensure maximum cooling tower operating efficiency, accurate determination of water use trends, and increased leak and malfunction detection capabilities.
- Where feasible, continue conversions to recycled water in areas still using potable water for landscaping.
- Continue to prioritize restroom retrofits of showers, faucets, and toilets

## LOOKING FORWARD

- Introduction of a water conservation workshop to help with the aerator retrofit project.
- Expand Weather-Based Irrigation Control Systems on Campus.

## LABS, SHOPS, & STUDIOS

### ACCOMPLISHMENTS (2019/2020)

- Completed an inventory and corresponding training materials for available take-back programs for waste that is not accepted by our local waste hauler.
- Developed a process for laboratories to apply for the energy efficiency incentive funding program through Facilities Management.
- Completed a comparison of energy use of buildings on the campus to better quantify the increased impact of laboratory spaces over office spaces and to compare laboratory buildings to each other to help prioritize which buildings to focus improvements on.
- Assisted a researcher in securing a grant for LED lights for campus plant growth chamber facilities (\$17,050)

### ONGOING INITIATIVES

- Sustainable Laboratory Assessments through the UCSB LabSYNC program continued through March 2020. These assessments are on hold as a result of COVID, however we are developing new virtual alternatives.

## LOOKING FORWARD

- Developing a virtual training program for researchers on sustainable research practices.

## COMMUNICATIONS

### ACCOMPLISHMENTS (2019/2020)

- Partnered with HDAE to host a Residential Hall and Apartment Complex Energy Competition during February 2020. During the month-long competition over 12,000 kwh were saved.
- Updated and rebranded the [Sustainability](#) website to align with new branding guidelines from Public Affairs.
- Partnered with the Community Environmental Council; the cities of Goleta, Santa Barbara, and Carpinteria; and the County of Santa Barbara to host the 9th annual Central Coast Sustainability Summit. The event brought together elected officials, staff, faculty, and interested parties from local governments and organizations.

## ONGOING INITIATIVES

- For the seventh year we partnered with the Environmental Affairs Board to host twice per week workshops for the Summer Freshman orientation program;
- Continue and expand the reach of our education and outreach campaign, including through social media platforms and website;
- Continue to ensure that when there are opportunities to give feedback on campus planning projects, underrepresented communities are asked for advice and guidance;
- Continue to host annual Residential Hall and Apartment Complex Energy Competitions.
- Continue to produce a monthly newsletter highlighting sustainability programs and research across the campus.

## LOOKING FORWARD

- Strengthen our outreach efforts with graduate students, transfer students, and international students, and staff. These are communities that we have identified as having limited outreach to in the past.

## OTHER INITIATIVES

### **The Green Initiative Fund (TGIF)**

The Green Initiative Fund chose 14 projects in 2019/2020, awarding a total of \$168,398 to help make UCSB a greener campus. See below for summaries of each project you can expect to see completed over the next academic year:

#### **Healthy Beverage Initiative (HBI) Hydration Stations (\$24,340)**

TGIF funded the installation of 6 hydration stations as a partial match to the 22 hydration stations that HBI secured funding for from UC Human Resources. The funding was used to install hydration stations at Theater and Dance on the 1st floor of HSSB, the Baseball Stadium, EEMB in North Hall, and Sociology and Global Studies in SMSS. These are all student centered academic departments and athletic spaces with high foot traffic. The Healthy Beverage Initiative aims to encourage students, staff, faculty, and campus administration to reconsider beverage choices in terms of both what we are consuming and the environmental impact of single use containers.

#### **Storke Apartments Electric Vehicle Charging Stations (\$12,050)**

The Storke Apartments Electric Vehicle Charging Stations project will provide accessible, cost effective charging capabilities within the West Neighborhood apartments for students, families, and visitors to Family Student Housing (FSH). Moving towards EV usage will help reduce the need for fossil fuels, especially as UC Santa Barbara and California increase the percentage of renewable energy supplied to the electric grid.

#### **Energy Efficient Window Film in the Ombuds Office (\$3,382)**

Funds are being used to install reflective coating on south facing windows in the Ombuds office, which will help to maintain and enhance both comfort and privacy, while reducing the energy required to maintain this environment. This project has the potential to reduce the incoming solar energy by 61% (source, 3M). The sun control window film also rejects 99% of harmful UV light while increasing privacy for visitors.

#### **LED lights for campus plant growth chamber facilities (\$17,050)**

TGIF awarded matching funding for energy-saving upgrades towards two new plant growth chambers, to incorporate LED growth lights into the instrument design. The LED upgrades eliminate labor, bulb-changeout time, and the generation of mercury-containing wastes required by fluorescent and halogen lights. Furthermore, they reduce greenhouse gas emissions (57,700 lbs/yr for both units) and provide significant energy savings (\$8774/yr for both units) as compared to the older technology which is the default for these units.

#### **The C3JN and UCSB Environmental and Climate Justice Hub (EJCJ Hub) (\$13,800)**

The Central Coast Climate Justice Network (C3JN) and UCSB Environmental and Climate Justice Hub (ECJ Hub) have partnered on a scholar-activist research collaboration rooted in climate and environmental justice. The overarching purpose of this collaboration is to cultivate a practice of scholar-activism in Santa Barbara, focused on developing research skills and leadership for environmental and climate justice. A newly formed 'lab space' at UCSB, under EJ/CJ, is the hub of this collaboration, consisting of undergraduate and graduate students as well as faculty from departments across campus. In this lab, students have the opportunity to work in teams on projects with organizations in C3JN, participate in a series of workshops on scholar-advocacy methods, learn more about key environmental and climate justice issues along California's Central Coast, and receive guidance on making academic research publicly accessible, legible, and relevant.

#### **TGIF Irrigation Improvements for Pardall (\$11,000)**

Funding was used to extend recycled water infrastructure to 17,540 ft<sup>2</sup> of turf, and 41,762 ft<sup>2</sup> of ornamental shrubs, that were being irrigated with potable water. This project will save 655,829 gallons of potable water annually.

#### **TGIF Alternative Vehicle Incentive Program (\$12,500)**

This year's committee has awarded \$12,500 to the Alternative Vehicle Incentive Program. The program offers departments a ~10% rebate on their purchase of an alternatively fueled vehicle. Offering an additional incentive helps encourage departmental car buyers to move away from purchasing conventional gas powered vehicles in favor of EVs/hybrids, or greener options.

#### **Early Childhood Educators for Water Resource Education (\$4,900)**

TGIF Funding was used to purchase an ENERGY STAR certified Lamber DSP4DPS dishwasher (estimated savings of 5,000 gallons of water) for the Orfalea Family Children's Center and to support water conservation curriculum.

### **Lotte Lehmann Sustainable Lighting Initiative (\$23,961)**

The Department of Music is using the funding to begin transitioning the existing on-stage theatrical lighting in Lotte Lehmann Concert Hall (LLCH) to a more modern and energy-efficient system. This is the first phase in a multi-phase plan to eventually replace each current fixture with a safer, more capable, and longer lasting commensurate LED instrument. In addition to saving approximately 126,256 kWh annually, this project will also improve the quality of light, and reduce the amount of labor hours put in by the department's technical staff, as they will no longer need to work at-height in a lift to replace color gels or lamps.

### **Improving electrical efficiency on the Santa Cruz Island Reserve (\$7,070)**

As an off-grid location, the majority of the Santa Cruz Islands Reserve's electricity usage comes from solar arrays or a gas-powered backup generator when solar is unavailable. One of the largest single sources of electrical draw on the Reserve's solar power comes from outdated and inefficient refrigerators that support research, classroom and staff users. TGIF funding is being utilized to purchase six new EnergyStar refrigerators, transport the old refrigerators off-island for proper recycling, and transport of the new refrigerators to the island for installation. This project will not only reduce generator gas costs and emissions, it will reduce the cost and emissions associated with transportation of fuel from the mainland to the reserve.

### **Building clean energy, electric transportation infrastructure at UCSB's VESR (\$4,947)**

TGIF has awarded matching funding for the installation of two Level-2 electric vehicle charging stations at the Sierra Nevada Aquatic Research Laboratory (SNARL) to support the growing need for clean, low cost transportation at this remote UCSB facility. The charging stations will be available to all students, researchers and visitors to the reserve, where there are currently no alternatives for efficient car charging.

### **Autoclaves Across the Campus - Retrofit for Water Efficiency (\$3,616)**

As most modern autoclaves utilize a large amount of water, TGIF funding is being used to purchase and install WaterEco Basic units which drastically reduce the water consumed by the autoclave.

### **LED Retrofit of UCSB Recreation Center Tennis Court Lights (\$27,327)**

TGIF has awarded matching funding to the Department of Recreation to retrofit the current light fixtures at the UC Santa Barbara (UCSB) Recreation Center tennis courts with LED lights (OSQ High Output - 40L). There are 46 tennis court light fixtures over six tennis courts that are on from dusk to midnight. This retrofit will not only reduce UCSB's greenhouse gas (GHG) emissions by approximately 39,000 pounds CO<sub>2</sub>e annually, it will also save money for the Recreation Center from reduced energy use, and save time and money for Facilities Management from reduced maintenance. The Recreation Center is an auxiliary facility at UC Santa Barbara - meaning they pay their own energy bill from student service fees - so the efficiencies that come out of this project will directly benefit the students who pay student services fees.

**CHESC (\$2,475)**

TGIF funding was used to cover registration costs for 33 UCSB students to attend the 2020 California Higher Education virtual Sustainability Conference (CHESC). This conference brings in over 700 people from UC, CSU, CCC, and private colleges from all around the state to highlight proven best practices in sustainability. Topics include green building, energy, water efficiency, social equity, waste management, sustainable procurement, sustainability in curriculum, transportation, and more.