

U C S A N T A B A R B A R A

# CAMPUS SUSTAINABILITY PLAN

2018

# 1

## EXECUTIVE SUMMARY

The Office of Sustainability serves as the coordinating body for UC Santa Barbara that ensures sustainable practices and concepts are designed, integrated, and maintained throughout the many aspects of daily academic life. The plan is organized into 13 functional areas. The vision for each functional area is listed below:

- **Community Engagement and Partnerships.** Ensure that the campus and regional community is meaningfully engaged in developing and implementing sustainability efforts.
- **Student Leaders.** Provide opportunities for students to be full partners in the shared governance and implementation of our sustainability programs. Ensure all students graduate with life experiences and training to become informed leaders in their communities.
- **Academics.** Ensure that all graduates of UC Santa Barbara are literate in the social, economic, and environmental aspects of sustainability and that sustainability research is supported.
- **Built Environment.** Create superior places to study, work, and live that enhance the health and performance of occupants through sustainable design that incorporates human factors and biomimicry in new construction and renovation projects and in ongoing campus operations.
- **Communication.** Integrate sustainability into the daily habits of the campus community and encourage active participation and enthusiasm amongst students, faculty, and staff.
- **Energy and Climate.** Achieve a climate neutral campus through energy efficiency, conservation, on-site generation, and strategic procurement of clean and renewable energy.
- **Food.** Our campus will provide equitable access to healthy food to nourish and sustain the campus community. We will strive to demonstrate a direct connection

to the food system for students, staff, and faculty, and we will work towards a high level of regional self-sufficiency, where possible. The campus will also actively support such practices in both the neighboring and global communities through our food choices, policies, operations, and academic programs.

- **Laboratory Spaces.** Assist researchers in reducing their impact on the environment while also improving safety, management practices, communication, and resource sharing.
- **Landscape and Biotic Environment.** Increase biodiversity of the campus flora, maintain it as a living collection, enhance the utility of the campus as a classroom, protect native flora, and raise awareness about sustainable practices and self-sustaining systems, while reducing dependency on fossil fuels, extracted minerals, pesticides, and potable water.
- **Procurement.** Employ efficient procurement strategies, processes, and systems for the acquisition and responsible use of resources in a manner that supports the economy, society, and environment.
- **Transportation.** Be a leader and catalyst in our region and the State, furthering human mobility and travel replacement options, advancing alternative fuels, and enabling carbon neutral vehicle deployment.
- **Waste.** Making UC Santa Barbara a Zero Waste university by ensuring waste management programs and effectively promoting the reuse, reduction, recycling, composting, and repurposing of materials, as well as encouraging the rebuying of recycled material.
- **Water.** Assisting in protecting and conserving water resources, with an emphasis on reducing potable consumption through conservation, efficiency practices, and behavior change.



The main elements of the Campus Sustainability Plan (CSP) are the commitments and goals created by the network of individuals working in each of these functional areas to advance sustainability. It emphasizes goals that can achieve positive change or initial steps that will allow transition into further goals. The process is iterative and will progress over time to transform the campus and advance us closer to achieving a sustainable setting.

# INTRODUCTION



In 2005, Chancellor Henry T. Yang charged the Campus Planning Committee (CPC) to develop a comprehensive campus sustainability plan. The CPC appointed a sub-committee, chaired by the Associate Vice Chancellor of Administrative Services, and the campus had more than 80 participants attend the initial workshop. Teams were formed after the workshop, and they helped craft the first plan. In 2013, the Campus Sustainability Plan was updated and approved by the Chancellor. The plan was again updated in 2015. For the 2015 update, UC Santa Barbara Sustainability hosted a series of forums to help generate ideas that resulted in new community-driven actions and coalition efforts. The 2015 update included new timelines that aligned with the new presidential initiatives and integrated the three pillars of sustainability: social justice, economics, and the environment. The 2018 plan update incorporates social equity and short-term strategies to achieve the upcoming 2020 and 2025 targets.

## The Vision

At the University of California, Santa Barbara, we envision a future where we have little impact on the environment, and the entire campus community is engaged in sustainability. We are committed to fostering a culture of sustainability through campus-wide sustainability efforts, program development, and promoting the sustainability work of staff, faculty, and students – our greatest renewable resource. We aim to research, create, and implement solutions for a more sustainable future. We strive to capitalize on our position as an institution of higher education to ensure that all students understand the interconnectedness of environmental, economic, and social systems and to communicate that we each have a role to play in sustainability. We want all students graduating from UC Santa Barbara to be motivated to integrate sustainable practices into their future professions, embedding sustainability throughout the workforce.

In addition, UC Santa Barbara continues to seek to do business with companies that are integrating sustainability into their strategic planning and operations, as well as empowering their workers in meeting their own needs. We believe that building sustainable partnerships will result in a stronger and more sustainable local economy.

In order to achieve this vision, UC Santa Barbara continues to prioritize and monitor the implementation and progress of its sustainability initiatives. We encourage and coordinate the efforts of our faculty, staff, and students who are taking action today for a better tomorrow. By working with all sectors of the campus community, we look forward to helping UC Santa Barbara maintain its leadership role and attain its shared vision of a sustainable future.

## UCSB Sustainability Mission Statement

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

The concept of “sustainability” can be used in many ways, but in the Campus Sustainability Plan (CSP) it is defined as: “A better quality of life for everyone, now and for generations to come. It offers a vision of progress that integrates immediate and longer term needs, local and global needs, and regards social, economic and environmental needs as inseparable and interdependent components of human progress.”



# History

In February 1969, just after Santa Barbara's largest recorded oil spill, a group of 21 faculty, the Friends of the Human Habitat formed to discuss promoting environmental education at UC Santa Barbara. By the Fall of 1970, the Environmental Studies Program at UC Santa Barbara was established.

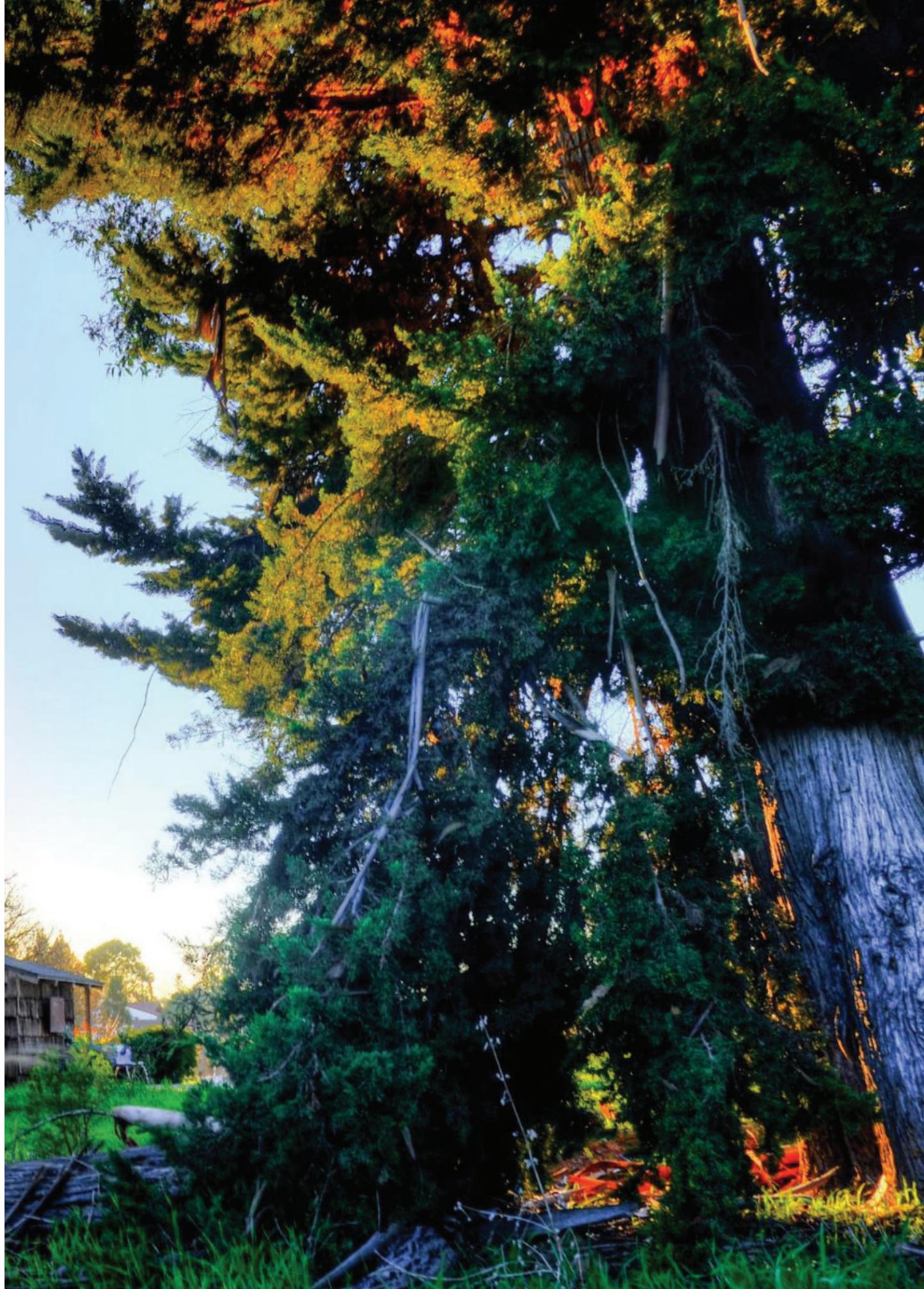
In 1991, The Regents of the University of California approved the formation of the Bren School of Environmental Science & Management. The first graduate students were accepted in 1996.

In 1996, Associated Students Recycling was formed to address the small percentage of recycling that was collected at the time (only 3%). The students formed AS Recycling through a student lock-in fee, which was passed with an 85% approval rating.

In 1999, the Isla Vista Surfrider Foundation and Associated Students Environmental Affairs Board advocated for lock-in fee for the first student-run sustainability funding body, the Associated Students Coastal Fund (previously named the Shoreline Preservation Fund). This passed with 75.9% of the vote.

In 2004, the campus completed its first Campus Sustainability plan (it was approved in 2005). The campus was also an early adopter of climate reporting and has participated in third-party verification since 2004 in an effort to reduce our climate impact. UC Santa Barbara also participated in the pilot version of Sustainability Tracking, Assessment & Rating System (STARS), along with reporting under STARS 1.0, 2.0, and 2.1. In addition to the Campus Sustainability Plan, there are two complementary plans to support this work, the draft Climate Action Plan (CAP) and the Water Action Plan (WAP). All three of these plans serve as support documents for the Long Range Development Plan (LRDP).

In 2007, UC Santa Barbara approved the 2007-2025 Strategic Academic Plan. The Mission Statement of the UC Santa Barbara Strategic Academic Plan (2007-2025) affirms the campus commitment to sustainability principles. The Strategic Plan identifies the environment as one of four key areas



of interdisciplinary teaching and research to be prioritized by the campus. For more details, please see the academics section of the plan.

The Long Range Development Plan is a policy document that shapes how the campus will develop through the year 2025, including changes in our academic programs and the development of additional campus housing for students, faculty, and staff. We recognize that our plans to accommodate increasing student demand have impacts on our neighboring communities. The LRDP process and the Campus Sustainability Plan process are designed to address community issues and concerns and environmental impacts, while allowing for manageable growth in the student population. The Campus Sustainability Plan looks further into the future and offers real solutions to potential future issues.

UC Santa Barbara is now home to the first triple platinum Leadership in Energy and Environmental Design (LEED) certified lab building in the nation. We also have the first residential complex (Sierra Madre Village) in the UC system to attain Platinum certification, the highest possible rating for sustainable design under the category "LEED for Homes." This last year we also received LEED Platinum Certification in New Construction for our new Bioengineering building, KITP Residence, and our Portola Dining Commons.

In the last couple of years, we have also increased our onsite renewable energy generating capacity tenfold through a multi-site Power Purchase Agreement (PPA). UC Santa Barbara now has over 5.3 megawatts (MW) of on-site solar capacity, which generates more than one-third of the campus's peak electrical demand and about 15% of our annual electricity.

Sustainability has a robust internship program that allows students to actively participate in making improvements to the campus in all of the functional areas as well as in the local community. Student interns are integral to our progress and provide much of the hard work, ideas, and passion for testing approaches and concepts and using the campus as a living lab to implement change.

# COMMUNITY ENGAGEMENT AND PARTNERSHIPS

Ensure that the campus and regional community is meaningfully engaged in developing and implementing sustainability efforts.

## Commitments

The University of California is committed to excellence in teaching, research, creative activities and public service. This section of the plan honors our public service mission.

The 2007-2025 Strategic Academic Plan notes that UC Santa Barbara's "commitment to public service is manifested through the creation and distribution of art, culture, and knowledge that advances the well-being of our state, nation, and world." Our students, staff, and faculty share their expertise through service learning activities, collaborative initiatives, publication and display of completed works, presentations, and more.

In order to successfully tackle regional sustainability issues we must also learn from and partner with local organizations, agencies, and business leaders. Our bike commuters cycle past the bounds of the campus, our potable water comes from off-campus, and our food is grown throughout the region. Our students, staff, and faculty live, volunteer, explore, invent, play, and shop throughout the area. UC Santa Barbara is woven throughout the fabric of our region.

Public service also elicits a responsibility to be accountable to the public. In the 17 Principles of Environmental Justice drafted and adopted in 1991 at the National People of Color Environmental Leadership Summit, the 7th principle is: "Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation."

We host public forums with off campus and on campus partners; organize broad coalitions; manage and facilitate cross-campus and cross-agency committees; and strive to be open and transparent in all of our work. We believe strongly in the value of bringing together community members, students, staff, and faculty into shared spaces where diverse perspectives that can be shared and debated.

## Progress

### *Best Practice and Knowledge Sharing*

Annually, UC Santa Barbara hosts a local summit, the Central Coast Sustainability Summit, where local governmental staff, elected officials, citizens, business leaders, regional schools, and non-profit organizations come together to share ideas and best practices; and strategize how we can better partner regionally. UC Santa Barbara also hosts the California Higher Education Sustainability Conference (CHESC) bringing together colleges and universities from all four systems of higher education in California to share successes and lessons learned.

### *Regional Planning and Governance*

- The Santa Barbara Bicycle Coalition, the County of Santa Barbara, the City of Santa Barbara, the City of Goleta, Santa Barbara City College, the Santa Barbara Waterfront, SBCAG, MTD, and community members worked together to craft the South Coast Bike Share Feasibility Study. When the study was complete, UC Santa Barbara was asked to take the lead. We added additional on campus partners that included Purchasing, Transportation & Parking Services, AS BIKE CommitteeS, and the Sustainable Transportation Committee. Bike share was successfully deployed on campus and in Isla Vista in August 2018. In anticipation of deployment, presentations were given to IVCS and IV Recreation and Parks services to ensure their support of the program (additional information is in the transportation section of this plan).
- Campus invited Sustainable University Now (SUN) to serve as a representative on the Chancellor's Sustainability Committee. We also had three members serving on the Sustainable Transportation Committee this past year.
- The UC Santa Barbara Food Security Taskforce facilitates quarterly meetings with all of the



community leaders in Isla Vista that work on food security to encourage collaboration across agencies.

### Community Service

In the past year, UC Santa Barbara Sustainability has expanded on our partnerships in the Isla Vista Community. The Educating Leaders for the Future Program, a partnership between Early Academic Outreach Program (EAOP) and UC Santa Barbara Sustainability, offers weekly activities at St. George's Youth Center on environmental justice and civic engagement. The UC Santa Barbara Edible Campus Program is a leading partner in two off-campus community gardens. These include St. Michael's University Church Community Garden and the University United Methodist Church Community Garden. UC Santa Barbara Sustainability mentors and supervises student interns for both gardens.

## Looking Forward

Many faculty, staff, and students regularly engage in public service; however, these efforts are often organized within a single department or by a small group of people. Our goal over the next few years will be to create campus-wide structures to support community partnerships. One such model is the Environmental Protection Agency's Educational Partnerships for Innovation in Communities (EPIC) Program Network <http://www.epicn.org/> which was inspired by the University of Oregon's Sustainable City Year Program. This is discussed below in the academics section of the plan.

We also seek to further engage community partners with specialized expertise as mentors for student projects related to sustainability. This could happen through the partnerships discussed above and also through the sustainability internship program.

In Fall 2018, the seven different organizations who operate garden and farm programs in Isla Vista and on the UC Santa Barbara campus formed the "Isla Vista and UCSB Garden Community", a group that will meet quarterly to discuss collaborations between the gardens.





# STUDENT LEADERS

Ensure that all graduates of UC Santa Barbara are literate in the social, economic, and environmental aspects of sustainability and that sustainability research is supported.

## Commitments

Within the University of California system, UC Santa Barbara is well known for how consistently and effectively we engage students in the governance, planning and programming of campus sustainability efforts. We have built trust with student leaders through honest and open dialogue. Students are represented in all of our committees and subcommittees as equal partners.

## Progress

In order to reach as many and as diverse students as possible, we take a multi-pronged approach to student engagement. We offer paid internships and for students who want a lower level of responsibility and time commitment, volunteer experiences. Sustainability staff regularly meet with student leaders and work hard to ensure that student leaders are made aware of opportunities to give feedback on key campus decisions.

We also provide funding and mentorship of the Ecological Coalition (ECOalition) student coordinator. Through this position, we are able to maintain open communication with all the student groups, keep updated contacts and collect information on the issues and campaigns with which students are concerned. By staying in the loop throughout the year, we are able to act quickly to get the word out to students when emerging issues arise.

### Some notable recent accomplishments include:

- Offered 83 paid student internships in the 2017-2018 school year directly through UC Santa Barbara Sustainability. 64 internships are planned for the 2018-2019 school year. The number of interns fluctuates from year to year based on funding available. A significant portion of our internships are funded by grants, donors, and other external funds.



- UC Santa Barbara Associated Students employs several additional students in sustainability work, including the direct operation of our campus recycling and composting program, our campus food pantry, and in managing and furthering the Associated Students Sustainability Policy
- There are two student leadership retreats planned for Fall 2018, including a retreat on sustainable food systems and food security for 37 student leaders and one more broadly on campus sustainability for 30 students. Both retreats will create space for coalition building and collaborative strategic planning.
- We are dedicated to retreat our students in skills that will be valuable to them in whatever career and life path they choose moving forward. Our students will learn how to boost resiliency by focusing on foundational practices such as basic ecosystem principles,

project management, communications, grassroots organizing, and goal setting.

- In the 2017-2018 academic year, there were 43 student organizations that had at least one environmental or sustainability based project or campaign, and many of these campaigns are slated to continue in 2018-2019. These organizations met monthly through the Ecological Coalition (ECOalition).
- UC Santa Barbara Sustainability is committed to diversity in all of our programs. We are one of the pilot programs for the Monarch Scholarship Internship Program which provides internship opportunities for undocumented students and is a regular partner of the work-study program. We have also adjusted the framing of job postings, recruitment processes, interview questions, requirements for positions, and more to make our positions appealing and accessible to all

students. We are dedicated to open announcements for all internship postings to ensure that all students have the opportunity to apply.

## Looking Forward

UC Santa Barbara Sustainability is committed to maintaining a robust internship program and doing everything we can do to ensure that we can pay students an equitable wage for their work. With a good wage, we have found that we can recruit a diverse group of students to our positions.

We plan to continue to expand on our training program and create a more consistent structure for trainings throughout the year. We also plan to better document our trainings, such that we will have clear lesson plans that can be referred back to in future years.

The strong reputation that we have developed for the UC Santa Barbara Sustainability Internship program also brings with it challenges. We typically get at least 15 applicants per position and sometimes as many as 40 applicants per position. This means that our positions are competitive and we have to turn away many strong applicants. This can also make it challenging for students with limited experiences outside of coursework to access our program. We recently received a grant from The Green Initiative Fund (TGIF) to develop a new training camp for students who have not had previous internships in sustainability. Through this program, we hope to give students skills-training to help them better compete for internships as well as opportunities to showcase strengths that they may have developed through less traditional means. This program will be part leadership development and part a “startup weekend” style competition to demonstrate core competencies. Employers from UC Santa Barbara Sustainability and other local groups will have an opportunity to see the presentations by the participants at the end of the training program.

UC Santa Barbara Sustainability is also excited to strengthen/develop strong partnerships with other programs on campus and in the community that offer sustainability-related internships. We cannot offer enough internship positions within Sustainability to meet student demand. These local partners help us to ensure that our students have more opportunities. One program we are particularly excited to partner with is the Environmental Leadership Incubator (ELI) being developed by the Environmental Studies Program and described in more detail in the academic section of this plan.



# ACADEMICS

Ensure that all graduates of UCSB are literate in the social, economic, and environmental aspects of sustainability and that sustainability research is supported.

## Commitments

The Mission Statement of the UC Santa Barbara Strategic Academic Plan (2007-2025) affirms the campus commitment to sustainability principles as we strive to be stewards of our natural and built environments. The Strategic Plan identifies the environment as one of four key areas of interdisciplinary teaching and research to be prioritized by the campus. The plan also identifies the academy and society, and global and international issues as key areas of interdisciplinary pursuit. These are both equally important to sustainability as the nature of sustainability issues is global and solutions will rely on partnerships between the university and the broader society.

UC Santa Barbara is also a signatory of the Talloires Declaration. The Declaration is a ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations, and outreach at colleges and universities. Drafted in 1990 at an international conference in Talloires, France, the Talloires Declaration has been signed by more than 300 university presidents and chancellors in over 40 countries.

## Progress

By its nature, sustainability is interdisciplinary, not residing solely in any one department on campus. 50.8% of departments that offer courses offer at least one course related to sustainability, and 47.1% of departments that house researchers, have at least one researcher who is doing research related to sustainability.

The Academic Senate Sustainability Work Group (SWG) aims to increase the number of sustainability-related courses through the New Leaf Grant Program. This program is governed by SWG and administered by Instructional Development. In 2017-2018, six new leaf grants were given to faculty to infuse sustainability into their courses. The

departments receiving the grants included Chemistry and Biochemistry, First Year and Graduate Student Initiatives Program, Art, and Education. UC Santa Barbara faculty are also frequent contributors to the UC Climate and Sustainability Education Resource Library.

UC Santa Barbara faculty have been active in the construction of a network of scholars, the UC-CSU Knowledge Action Network (KAN), whose work focuses on generating materials for educators across the disciplines who want to inject climate change, climate justice, sustainability, and carbon neutrality into their teaching. In 2016-17 a series of workshops and a virtual conference [[http://ehc.english.ucsb.edu/?page\\_id=16797](http://ehc.english.ucsb.edu/?page_id=16797)] were held involving more than 30 scholars from both the UC and CSU systems. In 2018-19, the knowledge action network is being assembled to bring pedagogical materials onto a new web-based platform, scheduled to launch in October 2019.



50.8%

of departments at UCSB offer at least one course related to sustainability.



47.1%

of departments at UCSB have at least one researcher whose research is related to sustainability

## Looking Forward

Every year faculty develop new courses and projects with partnerships in the community. It can be challenging, however, to ensure that both the community partner receives a useful deliverable and that students receive a rigorous learning experience. By Fall 2019, we hope to launch a program which will bring together UC Santa Barbara faculty and local community partners, using the Environmental Protection Agency's Educational Partnerships for Innovation in Communities (EPIC) Program Network model <http://www.epicn.org/>, which was inspired by the University of Oregon's Sustainable City Year Program. Through this program, we can promote additional coordination between the faculty member and community partners. Creating a multi-departmental approach can also open up opportunities for collaboration across groups working in the community combining the skills and expertise of different areas of study. Please also see reference to this in the community engagement and partnerships section of this plan.

The UC Santa Barbara Environmental Studies Program is also developing a new program called the Environmental Leadership Incubator (ELI). According to the overview document this will be "...a year-long leadership experience organized around a core course with student-initiated team projects addressing local to national environmental challenges. While ELI will be housed in Environmental Studies, it will be open to any student with junior standing from any discipline. The ELI will support projects across the domains of social activism, technology development, and policy change." The launch of ELI will be supported in small part by the Academic Senate Sustainability Work Group's Sustainability Champion Program.

# BUILT ENVIRONMENT

Create superior places to study, work, and live that enhance the health and performance of occupants through sustainable design that incorporates human factors and biomimicry in new construction and renovation projects and in ongoing campus operations.

## Commitments

Our campus is striving to create superior places to study, work, and live that enhance the health and performance of occupants through sustainable design that incorporates human factors and biomimicry in new construction and renovation projects and in ongoing campus operations. In 2010, our campus established a new requirement that all buildings commissioned after July 1, 2010, must meet a minimum of LEED (Leadership in Energy and Environmental Design) Gold. UC Santa Barbara also has an indoor Air Quality (IAQ) program that applies to the entire campus and strives to investigate and correct any discomfort or adverse health effects suffered by building occupants.

The campus has also integrated a number of elements into standard design features that help us address social equity, which include: indoor air quality, locating new buildings near transit hubs to make it accessible to lower-income workers and students, green cleaning practices, ergonomic approaches to cleaning, and electric landscaping equipment that reduces emissions for grounds to protect our staff.

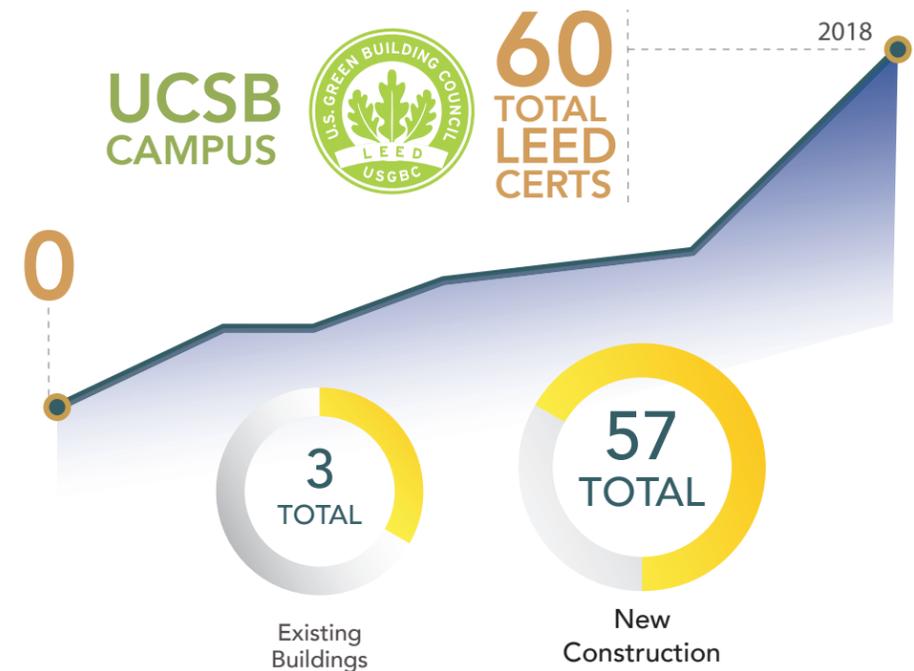
## Progress

In addition to being home to 60 LEED certified buildings and the first triple platinum LEED certified lab building in the nation. This last year we exceeded our own campus standards yet again by earning three more LEED Platinum Certification in New Construction for the Bioengineering building, Portola Dining Commons, and the Charles. T. Munger Physics Residence.

The Environmental Studies department at UC Santa Barbara offers a specialized class called LEED Lab for graduate and undergraduate students to learn about green building. During the year-long class, students assess the performance of existing facilities on

campus and choose one building to work on through the LEED for Existing Building Operations and Maintenance (EB O+M) certification process.

The Lab Ventilation Working Group, which formed to assess, clarify, and optimize standards for ventilation in the campus' 900+ laboratory spaces, recently oversaw a renovation project in the Physical Sciences Building North. Repairs, improvements, fume hood rebalancing, and updated ventilation scheduling cut the building's energy use by more than 30%, resulting in a savings of \$145,000 per year in energy costs to the campus. The project has a simple payback period of less than 2 years. The tools built in identifying, scoping, and overseeing these types of energy- and cost-saving projects can now be applied to other buildings on our campus.



## Looking Forward

In 2018, the UC system passed new Policies on Sustainable Practices aimed at reducing the Greenhouse Gas (GHG) emissions from our built environment and moving UC closer to its carbon neutrality goal. The new system wide policy requires that:

- No new building or major renovation that is approved after June 30, 2019 shall use onsite fossil fuel combustion (e.g., natural gas) for space and water heating (except those projects connected to an existing campus central thermal infrastructure); and
- The Laboratory Ventilation Working Group will identify additional candidate buildings for targeted energy-saving and safety-improving renovations in the coming year, following the success demonstrated with the Physical Science North building project;. and
- We are also planning a "sprint" to develop a set of guiding documents for greening up our projects under \$5M. This entails a series of workshops partnering Sustainability and Design & Construction Services to review best practices from other institutions and develop guidelines for these projects that can be vetted through the campus.

## COMMUNICATIONS

Integrate sustainability into the daily habits of the campus community and encourage active participation and enthusiasm amongst students, faculty, and staff.

## Commitments

Our campus recognizes the importance of promoting a “culture of sustainability” which integrates sustainability into the daily habits of the campus community and encourages active participation. Outreach and education place an important role in educating our own campus as well as the local community about sustainability. We are committed to acknowledging the interconnections of environmental, social and economic issues when promoting or educating the campus community about sustainability.

## Progress

We have a long-standing education and outreach campaign on our campus that promotes a culture of sustainability through a variety of platforms including: DigiKnows (rotating slides displayed on digital screens in Residence Halls and Dining Commons), posters, the quarterly sustainability newsletter, forums, planned events, tours, brochures, social media, videos, websites, and informational presentations. A few recent highlights include:

- An updated brochure on [Campus Sustainability](#);
- We launched a new electronic Climate & Energy Newsletter called the Climate Scoop. The Newsletter is meant to keep readers up-to-date on conservation and renewable energy projects on campus, the UC Carbon Neutrality Initiative, and ways they can help reduce UC Santa Barbara’s carbon footprint. Our first Newsletter is [here](#);
- Partnered with the Transportation committee to develop a series of outreach materials aimed at promoting the use of alternative transportation to faculty and staff;
- Created a new set of “Sustainability 411” posters for the green message boards around campus, primarily geared towards increasing student education about

sustainability on campus;

- Partnered with the Environmental Affairs Board to host twice-per-week workshops for the Summer Freshman orientation program;
- 20 faculty from the History department and 30 faculty from the Religious Studies department received a presentation on food security, and a copy of the “Hungry to Learn” student referral protocol;
- 37+ strategic outreach events were conducted by the Communications Team prioritizing underserved students. Some of the events attended included: Transfer orientation, SIRRC Orientation (Student Initiated Recruitment and Retention Committee), Graduate Students, Bren School, International students, Spring Insight, Environmental Justice Fair, Mental Health Fair, the following orientation mixers: African diaspora, Multicultural, Chicanx, Middle Eastern, Disabled, Queer, American Indian, EOP, and Undocumented Students;
- 16 videos were created for food security, which will be widely shared during 2018-19;
- UC Santa Barbara developed a Basic Needs resource guide, which was developed in conjunction with the Admissions department to reach pre-college students;
- 83 workshops for 1,415 unique participants (1,513 total participants) was hosted by FNBS. This was an increase of 118.3% from the previous school year, which hosted 648 unique participants; and
- 200 prospective students were introduced to food security resources through tabling during Spring Insight.

## Looking Forward

The UC System has set several ambitious goals including: striving to achieve zero waste by 2020; reducing our per capita potable water use 36% by 2025; achieving carbon neutrality in our operations by 2025; and addressing how to sustainably and nutritiously feed a world population expected to reach eight billion by 2025. To achieve any one of these goals, we will need effective outreach and education that

engages our entire campus community. The following goals will help us continue to expand campus engagement in these initiatives:

- Continue and expand the reach of our education and outreach campaign, including through social media platforms;
- Mobilize our campus to participate in the second Cool Campus Challenge (CCC) in Spring of 2019. The first Cool Campus Challenge ran from October 6 to December 10, 2015 and over 1,400 faculty, staff, and students from UC Santa Barbara participated in the challenge. CCC provides opportunities for broad campus involvement around the 2025 carbon neutrality goal. The second CCC will also expand its focus to include other initiatives around waste, water, and food;
- Launch a new Energy Dashboard that will provide the UC Santa Barbara community with real-time energy consumption for almost all buildings on campus, allowing building occupants to use the dashboard to explore their buildings energy use and compare it to other buildings on campus;
- Ensure that internship, educational, and funding opportunities are shared with underrepresented groups on campus;
- Ensure that when there are opportunities to give feedback on campus planning projects, underrepresented communities are asked for advice and guidance;
- Continue and grow our social media campaign; and
- Strengthen our outreach efforts with graduate students, transfer students, and international students, and staff. These are three communities that we have identified as having limited outreach to in the past.

## Commitments

In November 2013, UC President Janet Napolitano announced an initiative to achieve complete carbon neutrality in University of California operations for Scope 1 and Scope 2 by 2025. Ahead of the United Nations Framework Convention on Climate Change (UNFCCC) 2015 Conference of Parties (COP 21), Chancellor Henry T. Yang signed a pledge affirming UC Santa Barbara's commitment to the UC-wide goal. In alignment with AB32, UC Santa Barbara has already reduced GHG emissions (scope 1, 2, and 3) to 1990 levels by 2020, and is committed to achieving complete (scope 1, 2, and 3) carbon neutrality by 2050.

Additionally, our Campus Sustainable Procurement and Use Practices policy, commits us to obtaining 10% more energy from renewable sources than what is state mandated to the investor owned utilities. We recently met this goal.

## Progress

In 2017 UC Santa Barbara increased its onsite renewable energy generating capacity tenfold through a multi-site Power Purchase Agreement (PPA). UC Santa Barbara is currently moving forward with the installation of an additional 1.2 MW by the end of 2018. Together, the completed and planned phases of the project will generate 15% of UC Santa Barbara's annual electricity consumption, putting the campus on a right path toward meeting its Carbon Neutrality goal. In 2018 the Campus won a Best Practice Award in renewable energy for this project from the CHESC Higher Education Energy Efficiency and Sustainability Best Practice Awards competition.

Over the most recent two years, the campus has been very successful at increasing on-site renewable energy and implementing energy efficiency in new facilities. To meet

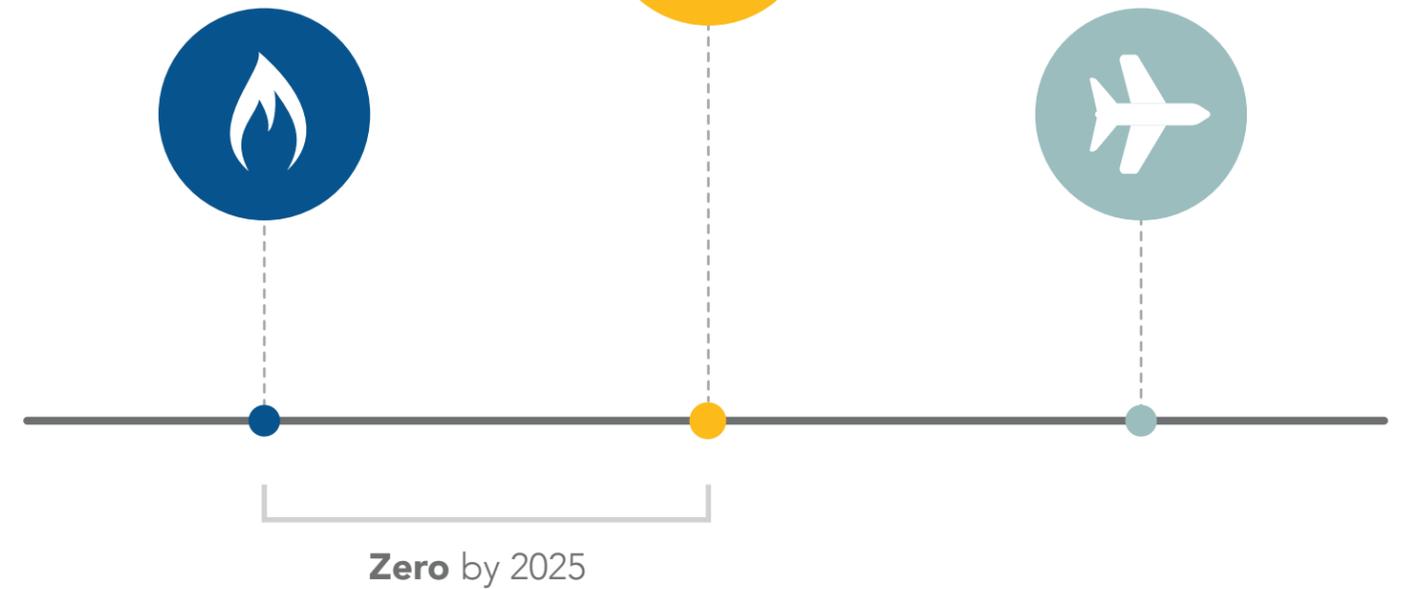
### Scope 1

Natural Gas Combustion & Campus Fleet



### Scope 3

University-funded business air travel and student, staff, and faculty commuting



our climate goals, the campus should prioritize financial investments in additional energy efficiency projects in existing facilities, where a substantial amount of potential savings exist. Additionally, energy efficiency investments offset deferred maintenance costs and typically include enhancements to thermal comfort and lighting conditions.

Over the last two years the campus has invested \$548,000 in energy efficiency, saving over 1,000,000 kwh of electricity and 50,000 therms of natural gas annually.

Although we have no formal campus goals or policies that deal directly with climate justice, student, faculty, and staff have shown strong commitments to fossil fuel divestment and climate justice. In May of 2013 the Academic Senate voted in favor of divesting from the 200 most polluting fossil fuel companies and in August of 2014, the Chancellor's Sustainability Committee called upon Chancellor Yang to endorse the ongoing campaign at the UC to divest its endowment from the 200 most polluting fossil fuel companies. In September 2015 UC divested from coal and tar sands companies. In May of 2017, Chancellor Henry T. Yang publicly endorsed UC divestment of nearly \$3 billion from fossil fuel companies.

# ENERGY & CLIMATE

Achieve a climate neutral campus through energy efficiency, conservation, on-site generation, and strategic procurement of clean and renewable energy.

# Looking Forward

The Carbon Neutrality Initiative (CNI) is arguably one of the most ambitious goals to which the campus has committed. It will require significant investments in energy efficiency, green building, renewable energy, and offsets. We are optimistic that by achieving the following goals, we can move closer to achieving the 2025 target.

- Implement energy efficiency actions in buildings and infrastructure systems to reduce the location's energy use intensity by an average of least 2 percent annually.
- Review the Energy Efficiency project list identified in the draft 2016 Climate Action Plan and develop a fundraising and implementation plan to execute those projects;
- Develop a policy that ensures that new buildings will be evaluated to determine if they should be designed to support solar installations;
- UC Systemwide is developing a program where campuses can buy into large renewable energy projects at the statewide level. Task the CSC Sub-Committee on Energy and Climate to consider how UC Santa Barbara might participate in that program;
- Complete a feasibility study of local projects that could be certified as offsets; and
- Explore potential grant collaborations for energy storage on campus.
- Continue to promote energy conservation through LabRATS, PACES, the Cool Campus Challenge, and other energy competitions.

19%

In 2014, the campus met our goal of reducing greenhouse gas emissions below 1990 levels by 2020. We are now 19% below 1990 emissions levels despite almost doubling in campus building space.

45%

Electricity intensity has been reduced by 40% and natural gas reduced by about 45% over the last 20 years.





# FOOD

Our campus will provide equitable access to healthy food to nourish and sustain the campus community. We will strive to demonstrate a direct connection to the food system for students, staff, and faculty, and we will work towards a high level of regional self-sufficiency, where possible. The campus will also actively support such practices in both the neighboring and global communities through our food choices, policies, operations, and academic programs.

## Commitments

In July 2014, President Napolitano launched the UC Global Food Initiative (GFI), challenging UC campuses to address the issue of how to sustainably and nutritiously feed the world by 2025. This initiative has galvanized multi-campus collaborations and seeded ambitious new programs.

In June 2017, Senate Bill 85 (Education) was approved by the Governor of California, initiating a number of actions to help campuses to become "Hunger-Free." This bill was in part inspired by advocacy efforts of the UC Santa Barbara Associated Students Lobby Corps and was introduced by local Assemblymember Monique Limon.

The UC Policy on Sustainable Practices also commits our campus to a number of ambitious practices including eliminating expanded polystyrene (EPS) in foodservice facilities for takeaway containers. All campus food services must also maintain 20% sustainable spend in food service through 2020. UC Santa Barbara already meets and surpasses this goal. Sustainable spend can include: locally grown; locally raised, handled, and distributed; Fair Trade certified; Domestic Fair Trade certified; Shade-grown or Bird-Friendly Coffee; Rainforest Alliance Certified; Food Alliance Certified; USDA Organic; AGA Grassfed; Grass-finished/100% Grassfed; Certified Humane Raised & Handled; American Humane Certified; Animal Welfare Approved; Global Animal Partnership (steps III, IV, V); Cage-free; Protected Harvest Certified; Marine Stewardship Council; Seafood Watch Guide "Best Choices" or "Good Alternatives"; Farm/business is a cooperative or has profit sharing with all employees; and Farm/business social responsibility policy includes (1) living wages, (2) transportation and/or housing support, and (3) health care benefits. We will also consider including other practices or certified processes as determined by the location and brought to the Sustainable Foodservices

Working Group for review and possible addition in future policy updates.

## Progress

- Please note a few of our most notably recent accomplishments below:
- Built UC Santa Barbara's first LEED Platinum Certified Dining Commons (Portola) and Tenaya Market & Eatery;
- Dining commons menus were updated to incorporate more vegan and vegetarian options. The dining commons have set an internal requirement to serve at least three vegan entrees/ week, and 2-4 vegan or vegetarian entrees for every 8-9 entrees offered daily;
- The four dining commons procured 55% sustainable produce during the Winter and Spring quarters;
- Residential Dining Services (RDS) participated in a food waste study organized by Menus of Change. The study researched students view of food waste. The study involved the placement of signs ("Food, too good to waste,") and then students were asked to complete a survey;
- University Center Dining (Ucen) improved signage and education on trash receptacles and saw compost as a percentage of total waste rise from 23.90% to 28.5% over 1 year;
- UCen Dining regularly donates food to the AS Food Bank through Food Cycling, a student-led food recovery program reducing food waste and increasing access to prepared meals;
- 7,554 lbs. of fruit was gleaned in the 2017-2018 school year at Food Forward events that Food Cycling at UC Santa Barbara helped recruit volunteers for;
- UCen Dining also started an organic herb garden and will grow all of the cilantro and parsley for their services organically on campus;
- UC Santa Barbara invested in expansions

## 83 Food, Nutrition, and Basic Skills Programs



1,527 program attendees



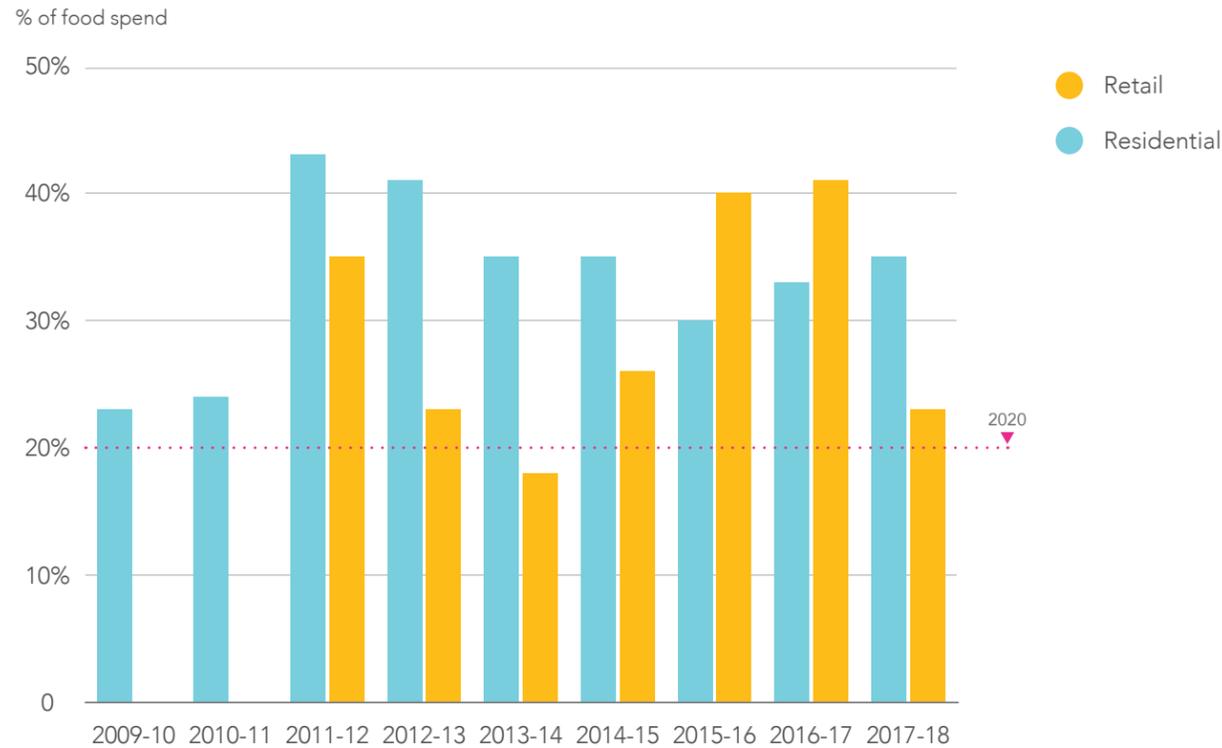
15 partnering departments



of the Greenhouse and Garden Project, West Campus Student Family Housing Garden, Storke Family Student Housing Garden, and the Three Sisters & Four Directions Gardens. We also launched a student farm which will be opened in the 2018-2019 school year;

- UC Santa Barbara also helped our students access healthy and sustainable produce

## SUSTAINABLE FOOD PURCHASES



through assistance with CalFresh applications. We registered 2,976 students in CalFresh in 2017-2018 unlocking over \$350,000 per month in grocery store benefits for our students. Students can receive up to \$192/month and the average allocation is about \$120/month;

- We educated students on how to access and prepare healthy meals through our Food, Nutrition, and Basic Skills Program in which we reached 1,527 students; and
- Residential Dining Services educational programming reaches all students with meal plans, which comprise 5730 residence and 1260 non mandatory meal plan holders. This includes events, tabling, and other outreach activities during the annual sustainability week, sustainable seafood day, and Earth Day.

Additional information about accomplishments can be found in our food security annual report from 2017-2018.

## Looking Forward

Starting in Summer 2018, a new management position was created to oversee both Residential Dining Services (RDS) and University Center Dining Services (UCen). Directors of RDS and UCen will report to this position. This blending of services, creates new opportunities for addressing sustainability cohesively across both units.

The 2018-2019 school year will also be the year that we get to celebrate many new programs:

- The Arbor Convenience Store will start to accept Electronic Benefits Transfer (EBT);
- Housing, Dining & Auxiliary Enterprises will open UC Santa Barbara's second student food pantry, Miramar Food Pantry;
- The Edible Campus Program will be opening the new student farm;
- The Food Security Taskforce and the SB Student Housing Cooperative will be launching a new dining cooperative; and



- The University United Methodist Church will open a new community garden and St. Michael's University Church will be making significant expansions to their community garden. Both of these community gardens are being supported by UC Santa Barbara Student Interns in the UC Santa Barbara Sustainability Internship Program.

This year, we will also be focusing on a significant expansion to the CalFresh Enrollment Program. Two years ago, we enrolled 620 students in CalFresh. One year ago, we enrolled 2,696 students. In 2018-2019, we plan to enroll 6,000 students while also establishing structures to ensure that we can maintain support for CalFresh enrollment over time.

# 10 LABORATORY SPACES

Assist researchers in reducing their impact on the environment while also improving safety, management practices, communication, and resource sharing.

## Commitments

The August 2018 update of the UC Policy on Sustainable Practices included more language about sustainable laboratory practices than previous versions. Each campus must now complete a green laboratory action plan and have a green lab assessment program supported by a department on campus to assess operational sustainability of research groups and the laboratories and other research spaces they use.

## Progress

UC Santa Barbara has had a green lab assessment program in place since 2006 called LabSYNC. Through this program, we have assessed 57 Labs (18.7% of total labs). Fifty Principal Investigators (15.4% of total PIs) have had their labs assessed as of Summer 2018. Sustainable laboratory practices are also integrated into EH&S' required safety trainings.

LabRATS also launched a new program to advise new faculty on designing/renovating research laboratories and presented at a town hall meeting for Administrative Services on the program. When faculty first establish their laboratories, they are still getting to know the resources on campus. Extra assistance in understanding the sustainability programs, policies, and local circumstances can be a great asset. This is also critical as many decisions affecting the resource use and impact of the laboratory are made in those early renovation design meetings.

We continue to push forward with our work on reducing the energy use of constant-volume fume hoods based on new calibration standards established by Environmental Health and Safety and the Laboratory Ventilation Working Group. In 2017-2018, we recalibrated 130 fume hoods and upgraded over 80 fume hood monitors, saving approximately 30% of the ventilation energy consumed per hood. LabRATS also applied 133 informational stickers to existing hoods promoting important

bench practices for water savings, flood prevention, and safety.

In Spring 2018, we also launched a study to explore the impact of warming up -80 °C freezers to -70 °C. This study will help us to assess cost-effectiveness, safety, and practicality of such a shift to -70 °C. In addition to energy savings from the temperature change, freezers can last longer at a higher temperature, which would save costs and reduce risks of sample loss related to freezer replacement and maintenance.

## Looking Forward

The following goals reflect the diversity of projects within the green labs topic area:

- Eliminate soft plumbed single pass cooling systems from the UC Santa Barbara campus;
- Identify a way to properly recycle or reduce unique laboratory waste streams;
- Retrofit 50% of autoclaves on campus with water saving technology and develop a plan for addressing remaining autoclaves;
- Complete a peer-reviewed paper based on the freezer study;
- Identify uses of Ethidium Bromide on the campus and determine if alternatives could be used; and
- LabRATS will also be completing a green lab action plan at the end of November 2018. This plan has a much more comprehensive set of short, mid, and long term goals.



**57**  
labs have  
completed  
a LabSYNC  
Assessment



**18.7%** of labs  
on campus have been  
assessed by LabSync



**50** Principal  
Investigators  
have had their  
lab assessed



**15.4%**  
of Principal  
Investigators  
have had their  
labs assessed



## Commitments

The Landscape Sustainability Committee is committed to managing campus lands in the most sustainable manner in order to achieve the campus goals for the land in an efficient and cost-effective manner. Sustainable considerations include fuel source, long-term water-use demands of landscape, impacts of maintenance activities on campus community (noise, frequency, toxic chemical use), restoring local biodiversity and provision of ecosystem services, support of landscape for diverse uses, and resilience of landscape in the face of climate change impacts. These diverse uses, include the function of the landscape to support academic and experiential learning, provision of food, respect for cultural history, support for pollinators and rare wildlife, and public safety.

The three primary land management units on campus, Housing, Dining, and Auxiliary Enterprises (HDAE), Design, Facilities, and Safety Services (DFSS), and Cheadle Center for Biodiversity and Ecological Restoration (CCBER), are committed to working together to provide these values to campus and support the campus sustainability and education missions.

## Progress

### ***Drought tolerance and water conservation:***

DFSS and HDAE continue to convert landscaping to recycled water, and to switch out inefficient sprinkler heads. CCBER implemented restoration of 100 acre North Campus Open Space project which converts a 60 acre golf course and 40 acres of invasive plants to self-sustaining native plants (no irrigation required long term).

### ***Fuel Use:***

HDAE is using electric battery powered blowers which decrease noise and air pollution. All of campus is now using electric powered Gator Utility Vehicles for landscape management.

### ***Landscape Maintenance:***

The campus is working to reduce frequency of maintenance activities and associated noise, emissions and use of herbicide or pesticides. Chemical use is tracked in each department. Several small areas are being converted to drought tolerant vegetation.

### ***Biodiversity and Ecosystem Services:***

DFSS & HDAE are tracking all trees on campus for health, removal and replacement. This data can be used to document biodiversity of trees, carbon sequestration potential, and provide educational data for academic divisions through Davey Tree Software "My Treekeeper" database. No neonicotinoid pesticides are used outside of buildings to protect bees and other insects. Invasive plants are being removed from landscaped areas and are screened from planned plantings through the use of Weed Management Plan. Permeable pavers replace hardscape whenever it is disturbed for construction purposes.

Through ongoing restoration of 240 acres of campus land CCBER promotes and enhances local biodiversity and supports multiple bioswales and treatment wetlands. Bioswale and treatment wetlands were mapped on campus in 2017. Through the newly established North Campus Open Space Restoration project (100 acres) CCBER provides the following benefits in this category: carbon sequestration by salt marsh and perennial grassland communities (together comprising 50 acres), water quality improvements associated with increased wetland size, flood abatement associated with restoration of wetland, support for biodiversity through hand collection, propagation and installation of more than 125 different species of native plants. Approximately 350,000 of 1 million plants have been established to date.

### ***Resilient Landscape:***

CCBER's design of the North Campus Open Space project includes consideration of sea level rise associated with climate change, drought tolerant plants that will handle potential increases in temperature, and wetlands capable of providing flood reduction benefits and

transgression space for diverse wetland plants and animals through sea level rise of at least 6 feet.

### ***Support for Diverse Users:***

Campus landscapes support 40 academic courses by CCBER staff, and on CCBER-managed open space areas that serve preschool to University level students. UC Santa Barbara students participate in hands on learning through internships and employment with CCBER and HDAE and research experience with CCBER. Educational signage supports staff, faculty and student community understanding in and around the open space areas; 2 new signs support community and Faculty understanding at North Campus Faculty Housing (NCFH).

There are several student-run garden spaces throughout the campus. Students can have their own plots to grow vegetables, flowers, etc, at the Greenhouse and Garden Project. If the student is a resident of Storke Family Student Housing or West Campus Family Student Housing they can also have a gardening plot right at their home. West Campus Family Student Housing is also home to the Three Sisters and Four Directions Garden managed by the American Indian and Indigenous Student Association (AIISA). AIISA also maintains a native plant garden outside the American Indian Cultural Resource Center (AICRC) at the SRB. In addition to these projects, there are several programs run by the Edible Campus Program to grow food for campus food pantries including the Urban Orchard in Storke Plaza, the vertical gardens at the Recreation Center, and the student farm at West Campus. Just last year, the University Center also started an herb garden to grow cilantro and parsley for UCen operations.

# Looking Forward

## Our goals are:

- Invasive plants: Remove populations of invasive plants on main campus (example: *N. tenuissima* by Bren and SRB);
- GHG Sequestration: Engage with professors and students to assess GHG sequestration potential of various portions of campus, particularly large restoration areas and urban forest;
- Achieve weed eradication across campus (all groups working on this goal): Bladder Flower (*Araujia sericifera*), Fountain Grass (*Pennisetum setaceum*), Mexican Feather Grass (*Stipa tenuissima*), Periwinkle (*Vinca major*), Smilo Grass (*Stipa miliacea*);
- Achieve campus awareness about landscape sustainability and role of bioswales, native plants, drought tolerant plants, and reclaimed water in achieving our mission among students, staff, faculty through an outreach program; and
- Convert several campus peripheral open space areas and adjacent lands with non-native, annual grasses to native, perennial grasslands which support biodiversity and native plant vision, increase carbon sequestration potential over the long term, and support more native wildlife.

## Our visionary goals are to:

- Be a leader in landscape sustainability through diversity of programs;
- Work towards a balance of greenhouse gas sequestration and emissions associated with management needs;
- Develop landscapes to be used as a living laboratory and model for drought tolerant, stormwater filtering and self-sustaining, low input landscapes that also serve the functions necessary for campus activities; and
- Protect native landscapes that preserve the natural heritage of coastal California native diversity and support wildlife and natural ecosystem functions.



# 12 PROCUREMENT

Employ efficient procurement strategies, processes, and systems for the acquisition and responsible use of resources in a manner that supports the economy, society, and environment.

## Commitments

In September of 2015, the United Nations adopted the Sustainable Development Goals (SDGs), or the 2030 Agenda, a collection of 17 global goals with 169 targets for achievement covering social and economic development issues. Target 12.7 of SDG 12, "Ensure sustainable consumption and production patterns," states: "Promote public procurement practices that are sustainable, in accordance with national policies and priorities." According to the UN Global Marketplace, "Procurement is called sustainable when it integrates requirements, specifications and criteria that are compatible and in favor of the protection of the environment, of social progress and in support of economic development, namely by seeking resource efficiency, improving the quality of products and services and ultimately optimizing costs." In May of 2016, UC Santa Barbara hired a Sustainable Procurement Analyst to help align UC Santa Barbara Procurement with these sustainability goals. Around the same time, the UC Office of the President added Sustainable Procurement to the portfolio of the Assistant Director of Sustainability, lending support to the development of campus sustainable procurement programs, and leading to the formation of the systemwide Sustainable Procurement Working Group (SPWG) that kicked off in February 2017. In April 2017, sustainable procurement became addressed under a global standard: ISO 20400, the first international standard for sustainable procurement, aiming to provide universal guidance on the development and implementation of sustainable purchasing practices and policies.

To further illustrate UC Santa Barbara's commitment to the above goals, the Procurement Subcommittee was formally restarted under the Chancellor's Sustainability Steering Committee in September 2017. UC Santa Barbara is an active participant in the systemwide SPWG, including in the Supplier Scorecard Pilot Project, and was

one of the primary developers of the new UC Sustainable Procurement Guidelines, the companion document to the updated Sustainable Procurement (formerly Environmentally Preferable Purchasing) section of the Sustainable Practices Policy. UC Santa Barbara Procurement is committed to abiding by this updated Policy and associated Guidelines, which are generally more stringent than UC Santa Barbara's outdated Sustainable Procurement and Use Practices (2012). Among other updated requirements around packaging materials, marketing claims, and e-commerce content management, this new Policy and Guidelines set the following targets for the first time in UC history:

- 100% compliance with UC Required Level Green Spend criteria, within three (3) fiscal years;
- 25% spend with products meeting UC Preferred Level Green criteria, per product category, within three (3) fiscal years;
- 25% spend with Economically and Socially Responsible (EaSR) suppliers, as a percentage of total addressable spend, within five (5) fiscal years; and
- 15% of total points utilized in competitive solicitation evaluations allotted to sustainability factors (exceptions allowed; beginning FY19-20).

## Progress

AAs there were no UC or campus-specific targets or goals set for procurement prior to the Policy update, the best method for tracking quantitative progress in sustainable purchasing to date has been through AASHE STARS reporting. Based on the three purchasing product categories included in STARS, over the past two fiscal years, UC Santa Barbara has already exceeded the new UC Green Spend goal for electronics, and is 3% shy of meeting the goal in the Cleaning Supplies category. Across all three STARS categories, UC Santa Barbara improved its green spend percentage from the 2015-2016 to the 2016-2017 academic year:

- EPEAT Gold registered electronics purchases increased from 51% to 91%;
- EPA Safer Choice, UL Ecologo, or Green Seal certified cleaning product purchases increased from 30% to 38%;
- FSC certified janitorial paper purchases increased from 90% to 95%; and
- 90-100% post-consumer recycled or FSC Recycled label office paper purchases increased from 20% to 26%.

*Note to Buyers: EPEAT-registered products can be found by searching the EPEAT Registry (<https://ww2.epeat.net/>). For additional Resources on guidelines for procurement, visit: <https://www.bfs.ucsb.edu/procurement/sustainable-procurement/department-buyers>*

In May 2018, the Green Electronics Council (GEC) who manages the EPEAT ecolabel, announced UC Santa Barbara as a winner of the 2018 EPEAT Purchaser Award. The awards program honors organizations that show leadership in the procurement of sustainable IT products, and recognized UC Santa Barbara with a two-star award for its purchases in two categories: PCs and Displays, and Imaging Equipment. Over their lifetime, compared to products that do not meet EPEAT criteria, the GEC estimated that the 1,365 EPEAT-registered IT products purchased by UC Santa Barbara in 2017 would result in environmental impact reductions including:

- Reduced use of primary materials by 128 metric tons;
- Avoided disposal of 1 metric ton of hazardous waste;
- Elimination of 4 metric tons of solid waste;
- Avoidance of 727 kg of water pollutant emissions;
- Savings of 429,800 kWh of electricity;
- Reduction of 71 metric tons of greenhouse gas emissions; and
- \$44,380 in lifetime cost savings.

In addition to these improvements in Green Spend over the past year, UC Santa Barbara

is working on several other initiatives that will support the new UC Sustainable Procurement Policy and goals. Through a collaboration between Procurement, the Bren School of Environmental Science and Management, Residential Dining, and a graduate student intern supported through TGIF, UC Santa Barbara is analyzing the environmental impact of its Dining purchases using input-output life cycle assessment. This analysis aims to serve as a model for the type of analysis that could be done across all campus purchasing if the campus moves towards a higher level of commodity classification in the future.

UC Santa Barbara continues to seek healthier and more sustainable cleaning products and practices. In 2017, with funding from TGIF, Procurement sponsored the replacement of paper towel dispensers with energy efficient electric hand dryers in ten of the highest use restrooms on campus, estimated to yield annual

savings of nearly \$10,000, waste reductions of over 13,000 pounds, carbon emission reductions by 76%, and a payback of just over 3 years. Additionally, through a collaboration between Procurement, Facilities Management, and Bren, and supported by funding from the UC Healthy Campus Network, UC Santa Barbara is conducting a study to analyze the efficacy of a safer, less toxic product for restroom cleaning and disinfection.

UC Santa Barbara Procurement continues to incorporate sustainability as a factor in the evaluation of competitive solicitations for both goods and services, with highlights from this year including Bike Share, Environmentally Preferable Dining Disposables, Street Sweeping, Residential Dorm and Apartment Cleaning Services, and Financial System Managed Services. UC Santa Barbara also led the development of new sustainability criteria for three systemwide bids, including Ergonomic Furniture, Maintenance

Repair, and Operations (MRO), and End User Devices (e.g. computers). In 2018, UC Santa Barbara will be increasing the percentage of evaluation points allocated to sustainability in all its RFPs from a minimum of 5% to a minimum of 15%.

## Looking Forward

With the recent approval of the UC Sustainable Procurement Policy and Guidelines, UC Santa Barbara has several quantitative targets to aim for over the next three to five years in terms of both Green and Economically and Socially Responsible (EaSR) Spend, as well as a renewed commitment to other procurement projects that will support UC Santa Barbara's sustainability goals in the areas of climate, waste, and water. The following Procurement goals seek to build on the momentum of UC Santa Barbara's progress made thus far in sustainable procurement:

- Complete the update of all internal campus forms and websites to align with the new Sustainable Procurement Policy;
- Conduct education and training for department buyers and suppliers on sustainable procurement concepts and policies;
- Surpass the 25% Green Spend goals for all product categories prior to the 3-year target date;
- Surpass the 25% EaSR Spend goal prior to the 5-year target date;
- Continue to be an active participant in the SPWG and the Sustainable Procurement Leadership Council to stay at the forefront of Sustainable Procurement best practices for higher education;
- Demonstrate successful implementation of the 15% requirement for sustainability in competitive solicitations prior to Summer 2019 start date;
- Improve the ability for campus buyers to identify and select sustainable products in e-procurement catalogs internally or through a third party;
- Improve the ability to capture product and service classification codes (either 8-digit UNSPSC or NAICS) for all spend in order to conduct a comprehensive campus spend impact analysis and Scope III emissions inventory; and
- Align sustainable procurement policies and strategies with those used by Design and Construction Services.



# TRANSPORTATION

Be a leader and catalyst in our region and the State, furthering human mobility and travel replacement options, advancing alternative fuels, and enabling carbon neutral vehicle deployment.

## Commitments

This past year the campus made great progress on bike share, further developing relationships with partnering agencies like the Community Environmental Council, MTD, SBCAG, Central Coast Clean Cities Coalition, and IVCS. For the first time, a Climate Neutrality initiative Fellow was funded to focus on increasing faculty and staff alternative transportation to and from campus. The CNI Fellow developed outreach material, a video, and helped organize bike to work month and an electric bike demo. As UC strives for the 2025 goal of climate neutrality, with consequent reductions in Scope 1 and Scope 2 emissions, the importance of scope 3 emissions, and in particular, commuter transportation, will vastly increase. UC Santa Barbara's goal is to provide incentives and programs to the campus community to reduce commuter emissions as well as to increase alternative fuel vehicles in our fleet.

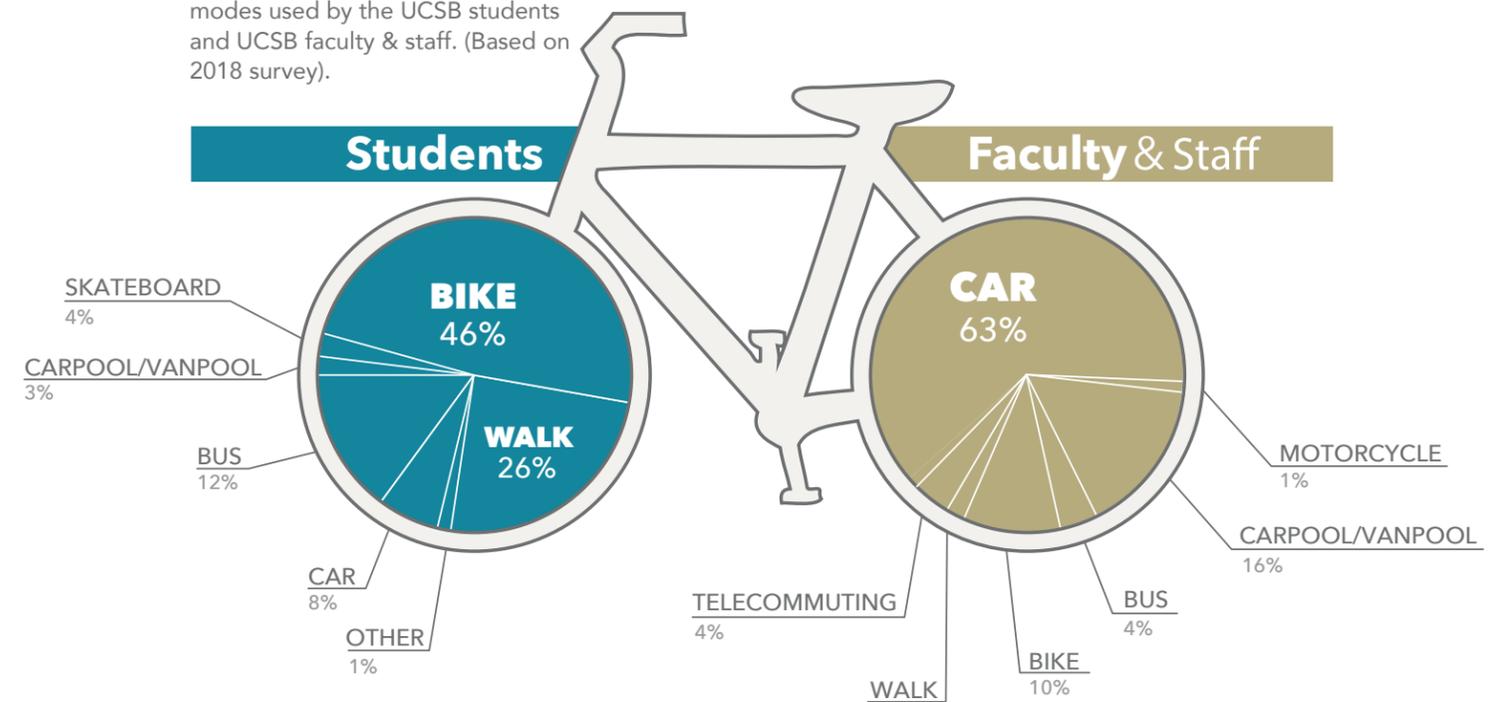
## Progress

This past year, the items we worked on included:

- Continued to deploy the Annual Transportation mode-split survey to see where we are making headway in commutes to and from the campus;
- Bus Route Improvements, adding line 28 and expanding service for the 12x, and MTD also implemented "BusTracker" so riders can get real-time bus information;
- The Commuter Train was finally retimed in April of 2018. Outreach efforts were put into place to try to obtain a number of regular subscribers;
- Completed the contract to implement Bike Share for campus. Please also see the community partnerships and engagement section for details on the partnerships developed around the Bike Share program;
- Worked with Financial Aid to pilot a

## Transportation to Campus

Percentage of transportation modes used by the UCSB students and UCSB faculty & staff. (Based on 2018 survey).



program that would fund 1/2 the annual membership cost for students which addresses the social equity aspect of bike ridership on campus

- Worked with the Santa Barbara Bicycle Coalition to establish a program for students to bequeath their bikes - keeping them out of the impound/waste stream;
- Assessed the UCLA Travel Mitigation Fund;
- Established a Folding E-bike pilot program for faculty and staff;
- Established a Climate Neutrality Initiative Fellow focusing on faculty and staff;
- Participated as an active member on the newly formed UC Fleet Sustainability Working Group focused on carbon neutrality;
- Worked on the highest participation to date "Bike to Work Month" in May;
- Worked with local bike companies to provide an E bike demo day;
- Developed an outline for the Strategic Transportation Plan;
- Improved Fleet by increasing the number of alternative fueled vehicles;
- Began the work on an anti-vehicle-idling policy;
- Continued a second year on TGIF Vehicle Incentive Program - a program that provides funding assistance when departments choosing an alternative fueled vehicle; and
- Explored merging with the Parking and Ratepayer Board.

In spring 2018, the Chancellor's Sustainability Committee established two of their six goals for 18/19 to be transportation related:

- Increase Commuter Train ridership
- Increase Bike Commuting and Infrastructure

## Looking Forward

Over the next few years we hope to implement transportation programs and GHG emission reduction strategies that reduce the environmental impacts of commuting, fleet, and business air travel. The following targets will help us meet this goal:

- Create a Strategic Transportation Plan for campus that includes bikes and bike infrastructure;
- Continue to provide bicycle safety education;
- Partner with AS Bikes and CSO's on implementing annual bike 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; and
- 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; and
- By 2050, strive to have at least 30% of commuter vehicles be ZEV
- Evaluate the feasibility of developing a travel mitigation fund similar to what was developed at UCLA.

The Sustainable Transportation Committee is in the process of developing a Strategic Transportation Plan that will identify strategies for achieving the requirements in the UC Sustainable Practices policies, and will also include site specific transportation goals as well as bike and bike infrastructure goals for the campus. We hope to have the draft plan out for campus consultation in spring quarter of 2019.





# 14 WASTE

Making UCSB a Zero Waste university by ensuring waste management programs and effectively promoting the reuse, reduction, recycling, composting, and repurposing of materials, as well as encouraging the rebuying of recycled material.

## Commitments

Our campus is committed to meeting the following five zero waste goals included in the UC Policy on Sustainable Practices:

- The University prioritizes waste reduction in the following order: reduce, reuse, and then recycle and compost; and
- Campuses must track estimated Scope 3 greenhouse gas emissions associated with waste generation;
- Campuses will reduce per capita total municipal solid waste generation as follows:
  - a. Reduce waste generation per capita to FY 2015/16 levels by 2020;
  - b. Reduce waste generation by 25% per capita to FY 2015/16 levels by 2025; and
  - c. Reduce waste generation by 50% per capita to FY 2015/16 levels by 2030.
- The University will achieve zero waste by 2020 at all locations other than health locations. Minimum compliance for zero waste is 90% diversion of municipal solid waste from landfill; and
- By 2020, prohibit the sale, procurement or distribution of Expanded Polystyrene (EPS) other than that utilized for laboratory supply or medical packaging and products.

## Progress

In an effort to improve awareness of the UC waste goals, the working group helped to coordinate zero waste education and outreach events around the UC-wide campaign #MyLastTrash, a campaign that links the efforts of all the campuses in the UC System. Events included tabling at the UC Santa Barbara Zero Waste Festival, hosting “Carry Your Waste” event that brought awareness to personal waste generation, and investigating reusable containers for UCen eateries. The working group also helped to facilitate the pilot of



implementing a compost collection program at San Clemente, which included providing residents with compost bins and setting up an exterior compost infrastructure.

## Looking Forward

### UC Santa Barbara Goal

- Improve education and outreach regarding UC 2020 Zero Waste Goal;

### Student Affairs

- Improve waste management/ disposal procedures and protocols for student organizations and events.

### Procurement Services

- Work with procurement to prioritize the purchase of compostable and recyclable

goods in Gateway;

- Identify additional vendors that may not provide safe work environments for employees;

### Student Organizations

- Improve waste management/ disposal procedures and protocols for student organizations and events;
- Continue to host education workshops regarding source reduction and waste management;
- Develop additional outreach programs including social media announcements and smartphone apps that provide information on proper waste management efforts, including composting at home, recycling efforts, and

procurement tracking;

- Expand indoor compost programs;

#### Facilities Management

- Continue replacing paper towel dispensers with hand dryers;
- Expand outdoor compost programs;
- Encourage additional research into behavioral economics of waste management;
- Continue to improve waste diversion efforts;
- Continue to map outdoor waste receptacles and eliminate unnecessary landfill receptacles where applicable, as well as look into locations where service may be difficult for staff members in an effort to reduce risk of injury;
- Continue to update campus waste infrastructure;
- Conduct building-level waste audits to determine waste characterization;

#### HDAE - Residential Operations

- Continue replacing paper towel dispensers with hand dryers;
- Expand indoor and outdoor compost programs;
- Upgrade waste infrastructure at the Events Center;
- Host first-ever Waste Reduction/ Diversion Challenge in residence halls;
- Continue to improve waste diversion efforts;
- Map outdoor waste receptacles and eliminate unnecessary landfill receptacles where applicable, as well as look into locations where service may be difficult for staff members in an effort to reduce risk of injury;
- Expand use of reusable hand towels and/or paper towel composting in residence halls.
- Develop additional outreach programs including social media announcements and smartphone apps that provide information on proper waste management efforts, including composting at home, recycling efforts, and procurement tracking;
- Continue to update campus waste infrastructure;
- Implement discounts at campus restaurants for bringing your own container. Provide reusable containers for purchase at the UGen
- Continue to host education workshops regarding source reduction and waste management.



- Develop additional outreach programs including social media announcements and smartphone apps that provide information on proper waste management efforts, including composting at home, recycling efforts, and procurement tracking.
- Expand indoor and outdoor compost programs.
- Continue to update campus waste infrastructure.

#### A.S. Recycling/ DPW

- Continue to host education workshops regarding source reduction and waste management;
- Develop additional outreach programs including social media announcements and smartphone apps that provide information on proper waste management efforts, including composting at home and, recycling efforts, and procurement tracking;
- Expand indoor and outdoor compost programs; and
- Continue to update campus waste infrastructure.
- Publish annual waste data on AS Recycling website
- AS Recycling will promote bike resale events

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## WATER

Assisting in protecting and conserving water resources, with an emphasis on reducing potable consumption through conservation, efficiency practices, and behavior change.

## Commitments

UC Santa Barbara has a rich history of implementing and institutionalizing water conservation and efficiency projects and programs on campus, and we are committed to meeting the UC Policy on Sustainable Practices requires UC campuses to reduce growth-adjusted potable water consumption 20% by 2020 and 36% by 2025, when compared to a uniform, three-year baseline for all the campuses, FY 05/06-07/08. The Policy requested that updated Water Action Plans be submitted in December 2017 that include the quantification of total square footage of used and unused turf area, as well as a plan to phase out unused turf irrigated with potable water. In addition, the policy states that a plan for replacing single-pass cooling systems, constant flow sterilizers, and autoclaves must be completed, as well as the implementation of recirculated cooling water systems for industrial and laboratory applications where available, specifically targeting soft-plumbed systems.

## Progress

In December of 2017, the Water Action Plan was completed by the Water Subcommittee. It provided a comprehensive update, including new cost analyses of the recommendations made in the original 2013 Water Action Plan produced with the help of Master's students from the Bren School of Environmental Science & Management. With the significant increase in potable water rates since the 2013 Water Action Plan was produced, many of payback periods for water conservation and efficiency projects were significantly lowered, with most of the goals having economic payback periods of less than four years. The goals in the 2017 Water Action Plan for further potable water reductions at UC Santa Barbara focus on implementing multiple conservation and efficiency strategies, including the substitution of recycled water for potable water in a variety of applications.

Goals include increasing the installation of low-flow aerators, shower-heads, and toilets in academic and housing buildings; improving the quality of recycled water used in irrigation and other non-potable applications; and expanding overall administrative actions to encourage water conservation. If all recommendations were fully achieved, the Infrastructure Goals would save UC Santa Barbara approximately 76.4 million gallons of potable water and yield roughly \$800,000 in annual cost savings, assuming the current cost of water remains flat. The 2017 Water Action Plan also defines management goals for stormwater and environmental compliance. Notable goals include the development and creation of standard operating procedures for stormwater, oil pollution prevention, and wastewater inspection and enforcement. The resource requirements for these goals are expressed in employee full-time equivalent hours and their implementation horizon is defined as either short or medium term.

As referenced in the Labs, Shops, and Studios section, LabRATS has also been instrumental in helping achieve the Water Subcommittee's goals by continuing to replace single-pass cooling systems with recirculating baths and by applying 133 informational stickers to existing hoods promoting important bench practices for water savings, flood prevention, and safety.

## Looking Forward

Our robust conservation efforts have meant that our consumption numbers over the years have remained low; 10 years ago, our average water use per day was about 30 gallons, long before the recent drought declarations. The current average water use per person per day is about 25 gallons, where the average residential water use rate on the Central Coast is around 50 gallons/person/day. To meet the 2020 goals, we will need to reduce water use to ~23 gallons/person/day, which will be challenging but, with several upcoming projects, possible. Such low use would put UC Santa Barbara as the campus with the lowest daily per capita consumption rate. The goals below are organized by campus divisions:

- Commit to conserving water and continuing with conservation practices in wet and dry

years;

- Continue building town and gown relationships through constructive engagement and workshops;
- Continue the expansion of recycled water infrastructure;
- Learn about how the City of Santa Barbara is utilizing Desalination to meet its water needs;

### Academic Affairs

- Pilot the use of recycled water in cooling tower infrastructure;

### Administrative Affairs

- Establish a fixture audit group/ class;

### Procurement Services

- Set guidelines for purchasing WaterSense products;

### Facilities Management

- Recycled water extension for landscaping areas;
- Faucet aerator audit and replacement program;

### Residential Operations

- Introduce pool covers at HDAE pools;
- Continue restroom retrofits with efficient fixtures;
- Look into waterless car wash technology; and
- Retrofit existing meters and install real-time metering systems.

# CONCLUSION

In the Campus Sustainability Plan, committees and teams across the campus have established a robust set of goals that will make UC Santa Barbara more sustainable by improving our operations, social equity in our community, behaviors, and educational experiences in classrooms and laboratories. The continued support at all levels within the institution will be critical to helping attain this ambitious vision. We look forward to our continued role of setting the highest standard for the state and nation on how a sustainable campus can operate. We will also expand our role in developing student leaders that will go out into the world to implement these changes and take the critical next steps in changing our society as thought, civic, and business leaders.

## Looking Forward

In the short-term, the campus will assess the level of investments it can sustain to meet the 2025 goal of UC carbon neutrality, balanced the need for offsets.

As the campus increase onsite renewable energy generation, reduce energy use per square foot, and moves towards electrification, Scope 3 commuter emissions will become a larger fraction of UC Santa Barbara's overall GHG emissions.

With the current 69% waste diversion rate on campus, attaining the last 21% required to meet the 2020 zero waste goal will require behavioral and infrastructural changes, as well as developing external partnerships. Partnering Waste and Recycling efforts with our Procurement practices will reduce what is brought on campus.

Our sustainability internship program allows students to actively participate in making improvements to the campus in all of the functional areas as well as in the local community. Students are integral to our progress and provide much of the hard work, ideas, and passion for testing approaches and concepts. Student involvement embodies the concept of using the campus as a living lab to implement change.

The Campus Sustainability Plan is a living

document, and as goals are attained, the subcommittees or change agent teams add new goals that are then added to our annual report to the Chancellor. The Campus Sustainability Plan will be updated again in academic year 2020/2021.

## Acknowledgements

We would like to recognize all of those who contributed to this Plan. We especially want to thank the members of the Chancellor's Campus Sustainability Committee. The Plan relies heavily on multiple campus stakeholders for input, support, and comments:

- Amorette Getty, Postdoctoral Researcher; Staff Advisor, LabRATS, Geography
- David Lea, Faculty Co-Chair, Chancellor's Sustainability Committee
- Katie Mayard, Sustainability Coordinator and Executive Director, CHESC; Co-advisor for LabRATS
- Christina McGuire, Student Programs Assistant, Department of Geography
- Mo Lovegreen, Director, Campus Sustainability
- Matthew O'Carroll, Recycling, & Water Efficiency Manager, Physical Facilities
- Heather Perry, Sustainable Procurement Analyst, Purchasing
- Jewel Persad, Sustainability Coordinator and TGIF Grants Manager, Office of the Vice Chancellor
- Jordan Sager, Jordan Sager, Campus Energy Manager, Physical Facilities
- Arjun Sarkar, Transportation Services
- Sarah Siedschlag, Associated Students Environmental Programs Advisor, Associated Students
- Lisa Stratton, Director of Ecosystem Management, CCBER
- Renee Bahl, Associate Vice Chancellor, Design, Facilities & Safety Services
- Graphics by Emily Yu, Undergraduate Student

