# CALIFORNIA STATE UNIVERSITY, SACRAMENTO SUSTAINABILITY REPORT

## aina

# 2023 - 2024



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## SOLAR

Sacramento State made significant strides in renewable energy production in 2023 and 2024 by installing three new solar arrays at Parking Lot 10, Parking Structure 3, and Parking Structure 5. This addition boosts the campus solar production by 500%, generating an impressive 4,155,584 kWh of clean energy every year. The campus now has five separate solar sites with over 8,000 individual solar panels. Solar can be found at the Library, the WELL, Parking Structure 5, Parking Structure 3, and Parking Lot 10. The energy produced by these sites each month is enough to power 342 single-family homes.

Although the solar arrays are located on campus, Sacramento State does not own or maintain any of the systems. Instead, all electricity they produce is acquired through a contract known as a Power Purchase Agreement (PPA). This PPA guarantees 100% of the power produced by the systems will be provided to Sac State at a fixed rate for 30 years. This agreement alleviates annual maintenance and repair costs with significant costs savings over the life of the contract.







#### Solar Cart Success Leads to Project Expansion

In early 2023, the Office of Sustainibility purchased a used golf cart and upgraded the systems to be more sustainable. LiFePo batteries replaced the lead-acid ones, a new speed controller was added, and a soft-sided solar panel was installed on the roof. These upgrades gave the cart a longer range, regenerative braking and the ability to charge almost entirely from the solar panel on its roof.

Following the success of the first cart, the Office of Sustainability partnered with the campus Automotive Shop to retrofit a second golf cart. The addition of solar to this cart made it more sustainable, but also allowed employees to complete their daily tasks without needing to stop to charge the vehicle mid-shift.

## **LIGHTING RETROFITS**

After a successful LED lighting retrofit in the campus library, Sacramento State was awarded \$6.9 million from the CSU Office of the Chancellor to retrofit lights in other campus buildings. Seven additional buildings were selected for retrofits based on their usage and potential energy savings.

Before

So far, 6 of the 7 buildings have received new LED lighting, with energy reductions ranging from 20-30% per building. The combined energy reduction is already more than 750,000 kWh per year. The new lights also have a 25 year lifespan, further reducing ongoing labor and maintenance costs.



Buildings retrofitted with LED lights include Capistrano, Sacramento, Solano, Riverside, Lassen, Kadema, and Yosemite Halls. The final building included in this retrofit project is Mariposa Hallslated for completion in August 2025.

**AWARD** 

WINNER

After





#### **Automated HVAC Scheduling**

In commercial buildings, significant energy is wasted when heating, cooling, and ventilating empty spaces. At Sacramento State, we are reducing wasted energy by integrating heating and cooling systems with our classroom scheduling software.

This year we launched a pilot project that connects the university's building HVAC control system with our classroom scheduling software in two buildings. When the space is reserved in those buildings for a class or event, a signal is automatically pushed to the HVAC control system telling it when to turn on and off. If the space is vacant, the system remains off. Previously, the building's HVAC system was turned on in the morning and off in the evening.

### Yosemite Hall Pool Heating

To replace dirty natural gas equipment with cleaner all-electric alternatives, the Office of Sustainability partnered with SMUD to replace Yosemite Hall's natural gas pool heater with electric heat pumps. These electric heat pumps keep the pool temperature at a comfortable 78 degrees year round, with a fraction of the emissions produced by the previous natural gas system.

#### **Hot Water Electrification**



Embracing the campus effort to curb natural gas use, Sacramento State's plumbing team replaced Sequoia Hall's old natural gas hot water boiler with an electric tankless system. This upgrade doesn't just cut down on greenhouse gas emissions, it also reduces water use. The new tankless system provides instant hot water instead of heating and storing water for later use. This saves water by reducing evaporation.

California State University, Sacramento



## **ART SCULPTURE LAB**

The Art Sculpture Lab is Sacramento State's second all-electric building. The 20,0000 square foot building uses electric heat pumps and kilns instead of natural gas versions, as low emission alternatives. The building also features a daylight harvesting lighting system that automatically dims when natural light is adequate to illuminate the space. The lighting system ties into a broader campus-wide lighting control system and can be monitored and adjusted remotely.

### **Buy Clean California**

The Art Sculpture Lab was the first campus project to fully implement the Buy Clean California Act guidelines. Following these new guidelines, the project prioritized the use of low-carbon materials, including steel and concrete. Choosing low-carbon materials reduced the overall embodied carbon in the building.

#### **Benefits of the Buy Clean California Act:**

- **Reduced Carbon Footprint**: By sourcing materials with lower embodied carbon, the lab's construction significantly reduced greenhouse gas emissions.
- **Promoted Green Manufacturing**: Supporting suppliers aligned with Buy Clean California encourages the adoption of sustainable practices within the manufacturing sector.
- Alignment with Sustainability Goals: The project showcased Sacramento State's com mitment to environmental leadership by incorporating climate-conscious practices into infrastructure development.

## **METERING** *Water Meter Project* The Problem

In late 2018, the Office of Sustainability identified a need for more accurate building-level water data. At the time, the existing water meters were manually read analog units and many buildings had no meters at all. An engineering study estimated that smart water meters campus-wide would cost \$4.2 million, including \$50,000 per unit for installing new conduit, network cables and power. Given the high cost, the project was put on hold.

#### **The Solution**

In the Summer of 2023, the Office of Sustainability discovered a water meter that uses a cellular signal and longterm battery pack to provide daily water data without requiring new conduit, network cables, or power. After a short pilot and IRT approval, 60 meters of various sizes were ordered, ranging in cost from \$800 to \$3,800. Installation was handled by a local contractor and the average total cost per water meter after installation was \$6,800. The meters also integrated into the campus public Sustainability Dashboard for students, faculty, and staff to view water use by building. Since the initial project, an additional 20 meters were installed, bringing the total to 80 units. With an average cost of \$6,800 per site, the project cost 86% less than the original estimate. Now, the campus has the water data it needs to make campus water management more efficient and sustainable.

#### **Gas Meter Project**

Utilizing the same technology as the water meters, building level gas meters were selected for their ability to transmit data in real time to an online database. In Summer 2024, 17 gas meters were installed across campus, including Housing and Riverfront Center, replacing the need for manual monthly readings. This project is set to continue into 2025 and beyond, bringing greater efficiency and insight into campus energy use.

**AWARD** 

**WINNER** 

## **PLASTIC PROHIBITED**

#### Hydration Stations

The Office of Sustainability has implemented the use of mobile hydration stations at all major events on campus. Each water station has a 125-gallon tank capacity equivalent to:

- 1,000 16 oz water bottles
- 3,000 paper cups
- 25 five-gallon water coolers

## **Plastic Policy**

On March 29, 2023, the ASI Green Team passed a resolution supporting the CSU Single-Use Plastic Policy (5236.00). The resolution promotes compliance with the policy across Sacramento State, including University Enterprises, Inc., and all campus vendors. This initiative has led to a campus-wide transition to metal water bottles and the widespread elimination of single-use plastic materials. Community members are encouraged to report any sightings of non-compliant materials to the Office of Sustainability.

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AQUAFINA

# Sustainability

#### Water Refill Stations

To promote reuse and reduce single-use plastic consumption, six permanent water bottle refilling stations and eight water fountains were installed at the campus football stadium. During the first football game of the 2024 season with approximately 8,000 attendees, four of the newly installed water refill stations eliminated the use of 2,000 single-use plastic bottles in just four hours. This initiative promotes sustainability by encouraging reusable water bottles and reducing plastic waste.

# **STUDENT SUCCESS**

#### Sustainable Fashion

On February 24, 2024, four emerging designers from Sacramento State showcased their sustainable fashion line, "Salvaged Row," at Fashion Week Sacramento, held at the California State Railroad Museum. The team of students and alumni focused on upcycled clothing made from secondhand materials, reflecting their academic emphasis on eco-friendly practices. This event provided them with valuable industry experience and marked a significant milestone, as many were participating in a major fashion show for the first time. The event supported local artists and raised funds for the L for Lupus Community Foundation.



#### Horses & Wildfire



In January 2024, Sacramento State students Shelby Konarski and Cerys McLean participated in a winter internship with the nonprofit Wild Horse Fire Brigade. The internship explored the potential of horses mitigating wildfire risks by grazing on rangelands, thus reducing combustible vegetation. The students documented horse behavior and ecology over two weeks, aiming to demonstrate the ecological benefits of horse grazing. This program seeks to provide an alternative to controversial roundups of wild horses, promoting their role in preserving native ecosystems while addressing wildfire management.

#### Sustainability Assessment

During the Fall 2023 semester, the Office of Sustainability collaborated with professor Kenchiro Chinen to develop and implement a sustainability cultural awareness survey. Kenchiro administered the survey to student's in his Sustainable Business course. The survey focused on students perception of sustainability at Sacramento State, with topics ranging from student engagement and outreach to recycling and energy conservation. Some standout results from the suvey indicated that students percieve the campus as doing a good job regarding the use of environmentally friendly products in eateries and good use of motion sensors for energy conservation.



#### **Boosting Urban Soil Health**

Dr. Si Gao, an assistant professor from the Department of Environmental Studies, partnered with the Office of Sustainability to complete research on various soil amendments and their effects on the successful growth of corn plants. Dr. Gao used two plots in the CapRadio Garden with compost made at Sac State to complete the study during Summer 2024.

# Placeholder:

Placeholder: Living Precariously is a collaborative project led by Eliza Gregory, faculty in Photography and Social Practice at Sacramento State. This art exhibit explores the concept of "holding and being held by place" by senior photography students investigating human relationships with land. The project highlights the often-overlooked connection between people and the land they inhabit, addressing contemporary issues rooted in this disruption. It includes nine visits across diverse locations—from the Central Valley to the Delta and San Francisco Bay—featuring individuals from various professions who cultivate connections with the land. Senior students created field recordings and excerpts from these visits, offering an immersive exploration of regional perspectives and the complexities of our ties to place.

#### Hornet Harvest Gathering

Sacramento State hosted its first Hornet Harvest Gathering, distributing meal kits with rice, beans, fresh produce, and recipes to combat student food insecurity. Sponsored by Aramark and supported by programs like CalFresh and the ASI Food Pantry, the event also provided cooking demonstrations and campus resources. With 40% of undergraduates facing food insecurity, this initiative offered immediate support and education, emphasizing cooking skills to promote sustainability.

Now Serving Low Climate Impact Food.

# Food Production & Sustainability

In Spring 2024, the Food Production and Sustainability course, led by Stephanie Spencer, partnered with the Office of Sustainability to host their lab hours in the CapRadio Garden. Throughout the class, students learned about growing food using aquaponics, seasonality of the garden, companion planting, importance of pollinators, and how and when to use cover crops. Students got hands on experience planting, harvesting, weeding, and preparing new seed starts in addition to learning about the Office of Sustainability's other projects and programs.

WARNING

Bee Hive

Do Not

## ALTERNATIVE SPRING BREAK

#### **BAC Yard Beautification**

Sacramento State students, staff, and faculty embraced the opportunity to give back during Alternative Spring Break 2024, an annual event organized by the Community Engagement Center (CEC), Sacramento State College Corps, the Office of Sustainability, and Associated Students, Inc. (ASI).

This year's initiative offered participants a chance to engage in meaningful local community service. Volunteers worked on projects at the BAC Yard and CapRadio Garden, focused on sustainability and environmental stewardship.

#### **Hands-On Projects:** Learning and Action: Volunteer Engagement: Volunteers prepared garden beds, built benches and Attendees learned about Many participants voluneco-friendly practices and teered for multiple days to finish projects, highlightcreated a pond for rescued climate change solutions ing the event's engaging that can be applied in turtles. everyday life. and impactful nature.



## **HORNET HONEY**



The Office of Sustainability recentlydoubled the number of bee hives in its apiary program, bringing the total to 15 active hives producing sweet Hornet Honey. Six of these hives were swarms captured on campus and re-homed to the Garden and BAC Yard.

In 2024, Sacramento State's bees pro duced more than 500 pounds of fresh, local honey. Those interested in purchasing honey can do so on the Office of Sustainability's website.



#### **Aquaponics**

Thanks to funding provided by the campus Environmental Studies department, the Capital Public Radio Garden is now home to a small aquaponics system that showcases how modular urban agriculture can work in a compact space. Aquaponics combines aquaculture and hydroponics into a closed-loop system where fish, bacteria, and plants work together.

Here's how it works: Fish waste produces ammonia, bacteria convert it into plant-friendly nutrients, and the plants take it from there. This method uses 90 percent less water than traditional farming, boosts production by eliminating competition for nutrients, and significantly reduces weeds. It's a smart, sustainable way to grow food in urban spaces.

#### **Community Engagement Center**

The Office of Sustainability partners with the Community Engagement Center each semester to provide students with volunteer and learning opportunities as campus gardeners.

In 2023 and 2024, students from the Semester of Service and Alternative Spring Break programs helped harvest more than 1000 pounds of fresh produce for donation to the Sac State Food Pantry.





## Tiny House

The tiny house, originally built by Construction Management and Mechanical Engineering students for a SMUD Tiny House competition, has found a new home at the CapRadio Garden. The building recently received an electric induction stove and ADA accessible deck and ramp. As a permanent feature at the CapRadio Garden, it is used during tours to educate K-12, college students, and the local community about the benefits of living sustainably.



## LOCALLY MADE COMPOST

Each year, the leaves from the 4,000 trees on campus are collected and stored at the BAC Yard, where they are transformed into nutrient-rich compost over a six to nine-month period using a windrow composting method. This process involves piling leaves in long rows, soaking them with water, and covering them to encourage decomposition. The rows are then turned periodically to speed up the decomposition process. This effort is a collaboration between the Office of Sustainability, the Facilities Management Grounds department, and our local waste hauler, Atlas Disposal.

Sac State generates around 100 cubic yards of compost annually, which is more than required for campus landscaping and field maintenance. We share the surplus compost with local organizations, including the Sacramento Unified School District, Yisrael Family Farms in Oak Park, and Three Sisters Garden in West Sacramento. This effort aligns with the University's Anchor Initiative, helping to support the surrounding community in growing fresh, healthy food, especially in areas with limited access to fresh produce.

## PARTNERSHIPS

#### **ASI Children's Center**

In 2023 and 2024, the Office of Sustainability partnered with the ASI Children's Center to collect food waste for use in the BAC Yard composting systems. Originally, the food was processed in traditional hot compost stalls, but in 2024 the material was used to launch the campus' first anaerobic biodigester.

#### **ASI Food Pantry**

The Office of Sustainability has a long-standing partnership with the ASI Food Pantry for the donation of produce grown at the CapRadio garden. In 2023, nearly 1,000 pounds of produce were grown and harvested from the garden for donation to the food pantry in spite of a fruit fly quarantine that limited the amount and types of produce that could be donated. In 2024, planting was adjusted to accomodate the fruit fly quarantine, and donations increased to 1,450 pounds.



#### ASI Student Engagement & Outreach

Associated Students, Inc. has a variety of programs that provide opportunities for partnership and events. The Office of Sustainability works closely with two ASI programs- ASI Student Engagement and Outreach (SEO) and the ASI Food Pantry. During the last 2 semesters, SEO partnered with the Office of Sustainability for eight volunteer-based events. Some events include, Alternative Spring Break, ASI Student Engagement and Outreach reach staff development, and a variety of events hosted by the Hornet Events and Activities Team.

#### International Visitor Leadership Program (IVLP)

The Office of Sustainability partnered with the U.S Department of State twice in 2023 through the International Visitor Leadership Program. This partnership brought representatives from 29 different countries to Sac State to discuss a variety of sustainability topics ranging from renewable energy to waste reduction. The international visitors learned about Sac State's plan for achieving carbon neutrality by 2040 and zero waste by 2030. This visit highlighted Sac State's leadership in sustainability on a global stage.



#### **Better Climate Challenge**

Sac State strengthened its commitment to cutting carbon emissions by establishing new goals with the U.S. Department of State. In 2023, Sac State became the first CSU to join the Better Climate Challenge, setting ambitious targets to reduce greenhouse gas emissions by 50% within 10 years and cutting energy intensity by 25%.

These efforts went beyond just lowering campus emissions. They also helped ease demand on the local power grid, reducing costs and minimizing the risk of blackouts. Just two years into the challenge, Sac State saw a 21% drop in emissions from its baseline.

## SAC STATE COLLEGE CORPS

College Corps, a program by California Volunteers, offers students the opportunity to earn money for college by giving back through meaningful community service. The Office of Sustainability served as a host site for 9 College Corps students in Fall 2024 and Spring 2025.

The program focuses on creating civic-minded leaders who can bridge divides and tackle real-world challenges. It also helps low-to moderate-income students graduate on time with less debt, all while addressing societal issues and building stronger, more equitable communities across California.

Robert Russell Jr. Film

Robert Russell Jr. Film

Uzair Macy Computer Science

> Rachel Miller Film

Zina Khan Computer Science Izabella Datakyan Nesychologi e Sustainability

Noel Zavala Rivera Photography

1. 78

Victoria Cueva Serratos Health Science Brooke Pacillas Design Studies

2024/2025 Sustainability Volunteers

Aisha Cortes Business Marketing

## WASTE TO WATTS Anaerobic Biodigester

Sacramento State's anaerobic biodigester is the latest addition to the BAC Yard, turning campus food waste into renewable energy through the Waste to Watts program. By processing food waste from catering services and large events, the biodigester helps cut landfill waste, reduces greenhouse gas emissions and generates energy to power campus operations.



The system currently processes about 500 pounds of food waste each week, producing around 30 cubic feet of biogas.

#### How it Works

Anaerobic digestion is a natural process where microorganisms break down organic material in an oxygen free environment to create usable biogas and digestate (a nutrient-rich byproduct). Cows use this same process in their digestive system.

In our system, campus food waste is fed to the microrganisms living inside the anaerobic digester. These microorganisms were introduced to the system by adding cow manure containing the microorganisms. As the microogranisms break down the food waste they produce biogas and digestate. The biogas is used to fuel a natural gas to electric generator and the electricty produced by the generator is stored in a mobile

battery. During last years Hornet Nest Fest, the mobile battery was used to power food warmers, replacing traditional gas generators. Following the event, all food waste was collected and sent to the campus digester where it was turned into biogas for future use.

## WASTE INITIATIVES

#### Hornet Trash Talks

Hornet Trash Talks are engaging, 30-minute interactive training sessions designed to educate campus offices and departments about recycling programs, waste disposal and sustainable practices. In 2023, an impressive 85% of all campus offices and departments participated in these sessions, enhancing their understanding of waste management and contributing to Sacramento State's sustainability goals.

### AI Waste Sorting

In 2024, Sacramento State introduced Oscar, an artificial intelligence-powered Smart Trash Bin, at the University Union, to promote proper waste sorting. When approached, Oscar scans and identifies items in a user's hand and indicates which bin it should be disposed in. If an item is placed in the wrong bin, the system signals an error audibly and visually, reducing contamination in recycling and compost streams.

Hornet Waste Game

T LANDFILL

In the summer of 2023, the Office of Sustainability created the Hornet Waste Challenge as a fun way to educate students, faculty, and staff about proper waste disposal. The waste challenge is an interactive waste sorting game that allows players to earn points and prizes for correctly sorting their waste.

et Waste Challenge

# HORNET SURPLUS

Hornet Surplus is Sac State's innovative digital surplus warehouse, where campus employees can view and request unused furniture and office supplies currently in storage. This app simplifies the redeployment of unused furniture, giving it a second life. This first-of-it's kind program aims to cut unnecessary new furniture purchases and reduce waste, taking actionable steps toward the campus 2030 zero waste goal.



(22)

**REUSE > RECYCLE** 

\$

31.2 Tons Avoided Waste

**AWARD** 

WINNER

\$528,516 in Savings

> 754 Exchanges



#### First Zero Waste Event

Hornet Nest Fest was the largest campus-wide event of the Fall 2024 semester, bringing more than 10,000 students and guests to campus. This year's event was also Sac State's first successful zero waste event, with more than 90% of all "waste" being either recycled or composted. Trained volunteers played a crucial role in the event's success by educating attendees on proper disposal and servicing tables. Campus Custodial staff emptied and weighed the collection bins frequently and the Aramark dining team provided compostable service ware. Food scraps were sent to the campus anaerobic digester to be transformed into biogas.



#### Earth Day 2023

Sacramento State celebrated Earth Day with interactive events in the library quad and a tree planting ceremony. President Robert S. Nelsen planted a Desert Museum Palo Verde tree in recognition of his final earth day as the campus President.

#### **Event Highlights:**

Interactive Activities: A clothing swap, sewing demonstrations, and sustainable fashion lessons raised awareness of the environmental impact of fast fashion and the benefits of reusing clothing.

> Environmental Advocacy: The ASI Green Team educated participants on avoiding microplastics such as glitter and confetti at graduation, offering eco-friendly alternatives made from leaves.

<u>Green Career Panel:</u> Students learned about potential careers in sustainability during a session hosted in the Carlsen Center for Innovation and Entrepreneurship.

<u>Electric Vehicles (EVs)</u>: Displays showcased the role of EVs in reducing Sacramento's air pollution, with insights from Sacramento Electric Vehicle Association members.

#### 2024

Sacramento State hosted a sustainability fair to commemorate the 54th annual Earth Day celebration. The event brought together departments and organizations who play an active role in making the campus a sustainable place to learn and work. Participants learned about campus services and how to reduce their environmental impact at school and at home.

#### **Event Highlights:**

Local Partnerships: Pachamama Coffee showcased sustainable coffee production methods.

<u>Campus Contributions</u>: Fresh vegetables from the CapRadio Garden highlighted sustainable urban agriculture.

E-Waste Recycling: Attendees had the opportunity to responsibly dispose of electronic waste.

<u>Electric Vehicles (EVs)</u>: EV displays emphasized the importance of reducing carbon emissions in transportation.



#### **Circular Economy Panel**

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As part of Entrepreneurship week, the Carlsen Center partnered with the Office of Sustainability to host a speaking panel focused on waste reduction through circular economies. The panel of experts discussed successes and barriers with circular economies in the current market. There were representatives from the local government, private, and non-profit entities, ensuring that all stakeholders had an opportunity to discuss the topic from their unique perspectives. The session was well attended, with students and faculty from various disciplines asking insightful questions.

#### **Circular Economy Innovation Competition**

Each year Sac State's Carlsen Center, in partnership with Western Placer Waste Management Authority (WP-WMA), hosts a waste management innovation competition. Members of the Office of Sustainability serve as judges on the competition panel. Teams compete for a \$20,000 prize for their start-up company. The sole requirement is an emphasis on waste reduction. The winners are also given a space to implement their product or technology at the WPWMA facility. Since its inception, the competition has given more than \$60,000 to burgeoning waste reduction companies in the greater Sacramento area. The 2024 competition winner was Fiber Global, an Indiana-based manufacturing startup that recycles cardboard into medium-density fiberboards (MDF).



#### **Cooking Demo**

Throughout the Spring 2024 semester, Peer Health Educators (PHEs) planted, tended, and harvested produce in a small cultural garden located within the CapRadio Garden. Funding for this project was provided by the CalFresh Healthy Living grant, a statewide initiative that promotes healthy eating and active lifestyles for low-income Californians through nutrition, education, and community changes. Most of the items grown in the garden were donated to the campus food pantry. At the end of the semester, PHEs hosted a cooking demonstration using ingredients from the garden. All dishes were prepared in the tiny house kitchen and attendees were served tomatillo salsa, beans, and a variety of other cultural dishes.



#### **Clean Air Day**

Each year, the Office of Sustainability partners with the local non-profit Sacramento Transportation Management Association (TMA) and University Transportation and Parking Services to promote sustainable transportation options available to all students. Last year TMA offered a free guided tour of the local SacRT-operated light rail station and provided attendees with helpful information on transit schedules and local stops. Prizes were raffled off to those that signed a Clean Air Day pledge of action.



## May is Bike Month

In partnership with the Sacramento Area Bike Association, Sacramento State's University Transportation and Parking Services department invited faculty and staff to participate in a month long cycling competition. Participants tracked their bike trips online and the organization with the most trips at the end of the month was the winner. Sacramento State came in second place for the Sacramento region. Events such as these promote cycling in a fun and competitive way and help to reduce transportation related greenhouse gas emissions.

# WASTE GRANTS

## Cal-Recycle In-vessel Composter

The Office of Sustainability was awarded a \$179,618 CalRecycle grant for the installation of a BioSpeed M4 in-vessel composter. The composter arrived in

late December 2024 and will process food waste from the Dining Commons. Compost generated by the Bio-Speed M4 will be combined with compost generated at the BAC Yard, to be used on campus and in community gardens throughout Sac Unified School District. Sac State was the only CSU to be awarded funding in the current Cal Recycle grant cycle.

BioCoTech

#### U.S. Environmental Protection Agency: TRADE

Sacramento State faculty member, Julian Fulton secured a \$742,240 Federal grant to enhance a community-based trash monitoring and cleanup initiative for San Francisco Bay. This funding will expand the Trash Rapid Assessment Data Exchange (TRADE) program, which enables community volunteers and student interns to easily monitor litter and conduct cleanup events in underserved neighborhoods.

The project aims to utilize a mobile app for data collection identifying common areas of plastic waste accumulation. Reducing plastic waste in neighborhoods prevents its transformation into hazardous microplastics. It seeks to significantly reduce litter in local waterways by 2025, addressing both environmental and social issues related to pollution.



## TRANSPORTATION GRANTS EV Shuttles

In 2024, Sacramento State was awarded a \$384,000 grant from San Joaquin Valley Unified Air Pollution Control District to provide University Transportation and Parking Services (UTAPS) two all-electric shuttles. These shuttles will replace two natural gas-powered shuttles from the campus Hornet Line, reducing transportation emissions and the overall campus carbon footprint. Students may try out the new all-electric shuttles beginning Fall 2025.

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#### **Fast Chargers**

Sacramento State is a sub-recipient of the 2024 FAST Grant, awarded to SMUD from the California Energy Commission. Sac State was selected as one of three regional sites to deploy publicly accessible EV fast charging stations. Through this grant, the charging stations valued at \$1,000,000, will be installed at the south end of campus during fall of 2025. These will be the first EV fast charging stations installed on campus and will be used to power the new electric shuttles acquired through the San Joaquin Valley Unified Air Pollution Control District.



## **AWARDS & RECOGNITION**

#### 2023

#### **UI GreenMetric**

Most Sustainably Improved University in the World **California Higher Education Innovation Honors** Focus on Efficiency - Water Meter Project **California Higher Education Innovation Honors** Focus on Efficiency - Hornet Reuse **Green California Schools & Higher Education Summit** Leadership Award **UI Green Metric Raking** 87 of 1,183 worldwide **2024** 



#### **CSU Facilities Management Conference**

Igniting Creativity - Elevating Stewardship - TOCA for Campus Lighting Retrofits CSU Facilities Management Conference Igniting Creativity - Elevating Stewardship - Automated Data Collection and Visualization via Metering and Dashboards California Resources Recovery Association Waste Prevention Award Sustainable Facilities Forum Leadership Award Sustainable Tracking and Assessment Rating System (STARS) Gold UI GreenMetric Ranking 81 of 1,477 worldwide APPA Award Sustainability Innovation Award - Hornet Surplus

#### Certifications

Bee Campus USA Tree Campus Wildlife Habitat Bike Campus USA



## SACRAMENTO STATE'S Environmental Impact

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Scope 2 Emissions - 9,740 Metric Tons

Scope 3 Emissions - 9,159 Metric Tons

Compost - 859,788 Pounds

Renewable Energy - 6,029,732 kWh

Solid Waste - 2,161,312 Pounds

Water - 332,919,683 Gallons

Natural Gas - 1,464,463 Therms

Recycling - 779,308 Pounds

Electricity - 37,746,520 kWh



Scope 1 Emissions - 7,122 Metric Tons

Scope 2 Emissions - 8,040 Metric Tons

Compost - 4,788,450 Pounds

Renewable Energy - 8,369,003 kWh

Solid Waste - 2,528,996 Pounds

Water - 144,547,486 Gallons

Natural Gas - 1,253,956 Therms

Recycling - 592,634 Pounds

Electricity - 35,493,579 kWh

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## Campus Commitments

#### **Climate Action Plan**

In 2021, the current Climate Action Plan was developed to detail mitigation strategies for reducing greenhouse gas emissions associated with campus operations. Once fully implemented, these strategies will lead Sacramento State to carbon neutrality by 2040.

#### **Zero Waste**

In 2020, Sacramento State established a 2030 zero waste goal. This goal focused on increasing compost and recyling collection, while reducing material sent to the landfill.

#### **CSU Sustainability Policy**

This policy is intended to position the nation's largest university system as a leader in the teaching and use of applied research to educate climate literate students equipped to solve the complex challenges of the world and prepare them for an evolving workforce. In addition, the policy encompasses the tenets of human and ecological health, social justice, economic vitality, and promotes the environmental sustainability of CSU's operations for our built environment.



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