

Sustainability 101



INTRO TO SAC STATE SUSTAINABILITY

- ☰ What is Sustainability?
- ☰ Sac State Sustainability
- ☰ Water Conservation
- ☰ Energy Management
- ☰ Waste Management
- ☰ Alternative Transportation
- ☰ Carbon Neutrality
- ☰ Student Resources

What is Sustainability?

What does sustainability mean?

Sustainability means to live and work in a way that allows the needs of current generations to be met, without compromising the needs of future generations, while ensuring a balance between economic growth, environmental care, and social well-being.



The 3 pillars of Sustainability

Which items below are pillars of Sustainability?

- Economical (Profit)

Environmental (Planet)

Social (People)

All the above

SUBMIT

Sac State Sustainability



What does Sac State's Office of Sustainability do?

The Office of Sustainability works with students, faculty, and staff to ensure Sac State is not consuming more resources than are necessary to meet the campus community's needs. They track and report energy, waste, water, and greenhouse gas emissions and coordinate projects that aim to reduce the use of these resources while maintaining economic growth, environmental care, and social well-being.

CONTINUE

Water Conservation

Sac State's Water

The campus water supply is derived from two distinct sources, irrigation and domestic water supply. Irrigation water is drawn from the aquifer that is charged by the American River. Domestic water is supplied by the City of Sacramento. Given that Sacramento State is one of the largest entities in the City, it is essential to conserve both domestic and irrigation water.

Why is Water Conservation important at Sacramento State:

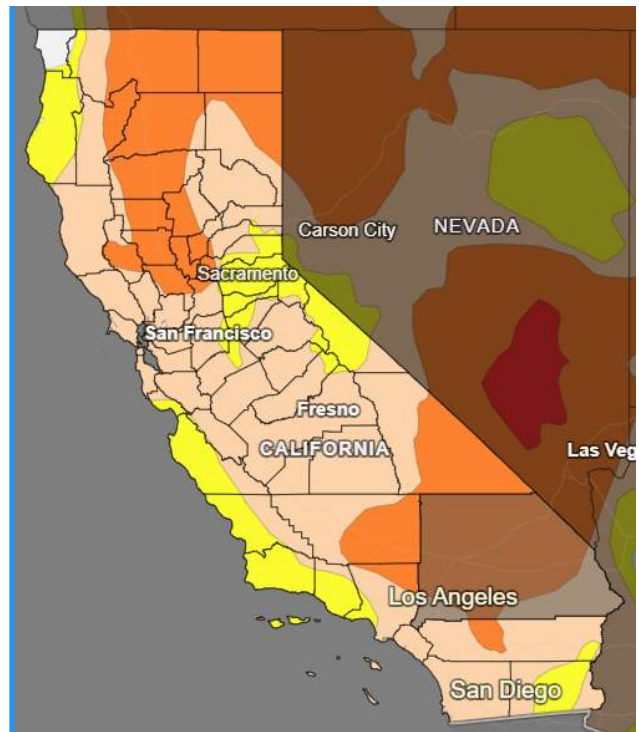
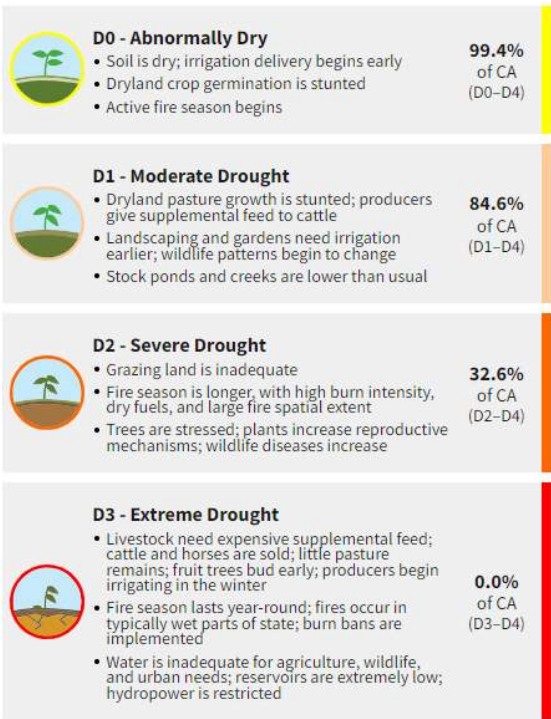
Landscape Management & Wildlife

Sac State manages 305 acres of campus grounds and is responsible for over 3,500 trees. Campus lawns and athletic fields are the sole consumers of irrigation water. Campus trees, lawns, and athletic fields are the main consumers of irrigation water. The World Wildlife Federation has certified the campus as a wildlife habitat, and our wildlife thrives due to the extensive tree canopy supported by our irrigation water



Drought Management: —

For the past several years the State of California has experienced moderate to severe droughts, these droughts have resulted in countless wildfires and a loss of both human and animal homes. It is essential that we at Sacramento State practice water conservation methods to alleviate the effects of droughts on the campus community.



Sacramento State's Conservation Efforts

Introduction

Sacramento State understands the importance of conserving water. Here are some of the ways Sac State is conserving water and improving the habitat for local wildlife.

Step 1

Low Flow Appliances



Based on a student research project, Sac State recently replaced all faucets campus-wide. The student project studied the difference in water consumption by both manual and touchless automatic faucets. The results of the study determined that automatic touchless faucets reduce water consumption by up to 54%.

Following the results of the project, grant funding was acquired through the Department of Water Resources (DWR) and all faucets were replaced by automatic touchless ones. Funding also allowed for the replacement of showerheads and kitchen appliances with low-flow ones. This project is estimated to reduce annual water consumption by 1.2 million gallons.

Step 2

Low Impact Development (LID) Sites



Sac State has 25 LID sites on campus, and it is estimated that they collect 3.2 million gallons of rainwater annually. This collected rainwater helps recharge the aquifer which the campus uses for irrigation. The Office of Water Programs has also developed a walking tour of these 25 sites. Additional information on LID and the walking tour can be found [here](#).

Step 3

Native and Drought-Tolerant Plants



Trees, shrubs, and other plants native to the Sacramento region have evolved and learned to thrive in our hot-dry climate. For this reason, native plants require less water than non-native ones. Sac State is committed to planting more native species and drought-tolerant plants, and all new construction is required to only use drought-tolerant native species

Step 4

Drip Irrigation



Sac State has drip irrigation in place throughout campus and at the Cap Radio Garden. Drip irrigation is an efficient way to deliver water slowly and directly to the base of the root zones of plants. Drip irrigation also has a 90% efficiency compared to traditional sprinkler systems and hand watering.

CONTINUE

Energy Management

Energy

The University strongly promotes and practices energy conservation whenever practical and feasible. We attempt to maintain a balance between occupant comfort and energy-saving strategies. Solar panels have been installed in strategic areas around campus to increase our on-site renewable energy production. The Well, the library, parking lot 10, and a small carport in the Facilities Management yard all have solar canopies. Future projects destined for solar are parking structures 3 and 5.



Finding a way

Lighting is the single-largest percentage of the campus electricity use, so the Office of Sustainability has collaborated with Facilities Management and contractors to retrofit existing buildings with LED lighting, saving up to 66% more power than traditional fluorescent lighting! The campus is on track to drastically reduce energy consumption by pairing this with occupancy sensors and daylight harvesting lighting controls. The Library, Yosemite North basketball gymnasium, and Mendocino Hall have all been retrofitted, with more in the plans as funding is secured.

How you can have an impact on Sac State's energy usage ?





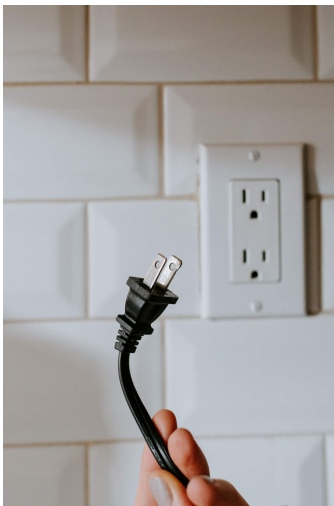
Power Down



Make sure that you power down your computer when you have finished as well as any other electronics you are not using



Unplug

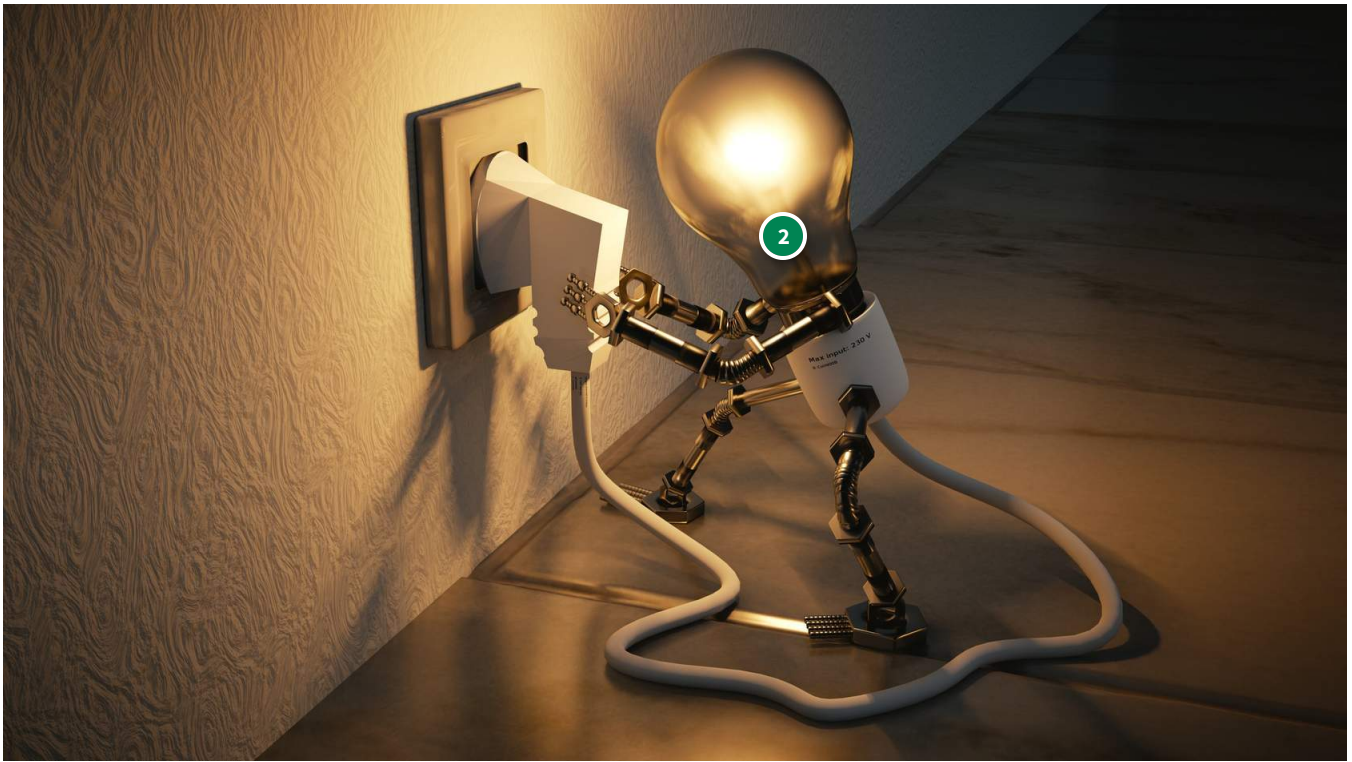


Unplug all electronics when you are not using them



Intro

Lights, monitors, projectors, air conditioning units, treadmills, laptops, printers, refrigerators, and all other devices that we have on campus represent a major portion of energy. Electricity demand must be met as soon as you plug a device into an outlet; we refer to this portion of our consumption as plug load. Making sure that you power down your computer when you have finished using it or making sure that the lights are switched off before you leave the room can make a difference. Small changes collectively followed can have a massive impact here on campus and at home.



Turn Off



Make sure lights are switched off before you leave a room can make a difference

CONTINUE

Lesson 5 of 8

Waste Management

Waste



TRASH

ATLAS DISPOSAL
Sac State Sustainability

- PLASTIC BAGS
- SNACK WRAPPERS
- PLASTIC WRAP
- STYROFOAM
- SANITARY WASTE
- CLOTHING
- SPONGES

NO organics or recycling.
NO hazardous waste.

MIXED RECYCLING

ATLAS DISPOSAL
Sac State Sustainability

- PAPER
- PAPER BAGS
- CORDBOARD
- BEVERAGE CANS
- ALUMINUM CANS
- PLASTIC CONTAINERS
- GLASS BOTTLES

ALL recycling needs to be empty,
clean, dry, and loose.
NO medical waste.

COMPOST

ATLAS DISPOSAL
Sac State Sustainability

- FOOD-SOILED PAPER PRODUCTS
- FOOD SCRAPS
- FRUITS and VEGGIES
- MEAT and BONES
- BREAD
- COFFEE GROUND and FILTERS

NO glass, metal,
or plastic.

Zero Waste is a Sac State Priority

- The president's office has established a 2030 zero-waste goal for Sac State.
- California Senate Bill SB1383 mandates collecting and diverting all food waste from the landfill and rescuing at least 25% of leftover food.
- CSU Single-Use Plastics Policy 5236.00 requires the following:
 - Eliminate single-use plastic water bottles by January 1, 2023.
 - Eliminate plastic straws by January 1, 2019.
 - Eliminate single-use plastic carryout bags by January 1, 2019.
 - Eliminate single-use polystyrene (e.g. STYROFOAM™) food service items no later than January 1, 2021.

California Senate Bill SB1383



SB1383 mandates the collection and diversion of all food waste from the landfill and the rescue of at least 25% of leftover food.

Step 1

Why is SB1383 Important?



Each year Californians throw out 6 million tons of food waste, this waste creates harmful greenhouse gas emissions as it decomposes in landfills.

Step 2

How is Sac State Complying



We have invested in three-stream recycling bins for campus-generated trash, mixed recyclables, and food waste.

What Does This Mean for You?



LANDFILL / TRASH

Styrofoam, snack wraps, bubble wrap, photos, gloves, plastic utensils, straws, plastic bags, Plastics with labels #4, 5, or 6, ceramics...

MIXED RECYCLING

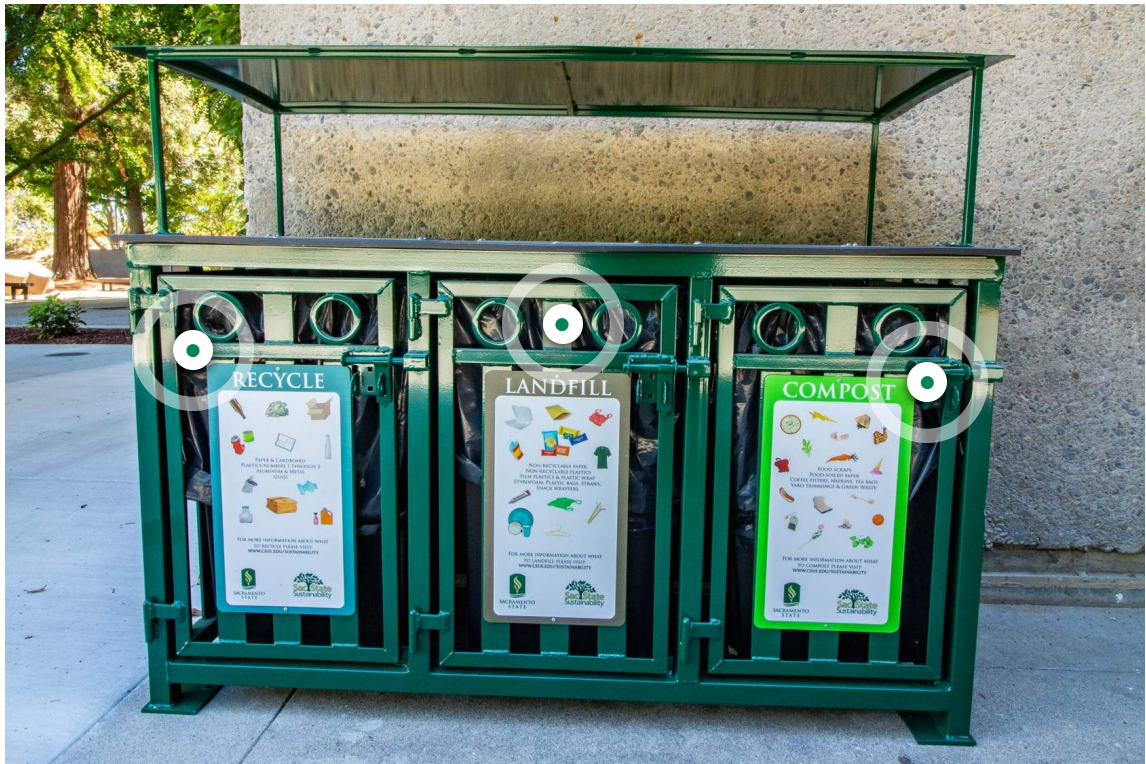
Plastics with labels #1,2 or 3, cardboard, white paper, paper bags, newspaper, aluminum cans, glass bottles

COMPOST

Food scraps (cooked or uncooked), bones, fats, meats, vegetables, fruits, pizza boxes, no waxed paper plates and cups, napkins, paper towels, wood utensils...

Place food waste in compost bins and put all other waste in the proper containers

What Goes Where?





Compost Bin



General Rule: Anything that was alive or is a product of something that was alive is compostable. (Ex: napkins = trees, bones = animals, vegetables = plants)

- Frozen, Fresh, or Spoiled Food Scraps
- Food Soiled- Paper like pizza boxes, napkins, paper towels, and paper take-out containers



Landfill Bin






**NO organics or recycling,
NO hazardous waste.**

General Rule: Shiny wrappers or items smaller than 2 inches (except metal) go to landfill. Items made from mixed materials also go to landfill. (Ex: chip bags, gum, pens, etc.)

- Styrofoam, snack wrappers, bubble wrap, plastic film, photos, gloves, plastic utensils...



Mixed Recycling

ATLAS DISPOSAL

Sac State Sustainability

PAPER

PAPER BAGS

AEROSOL CANS

BEVERAGE CANS

GLASS BOTTLES

CARDBOARD

PLASTIC CONTAINERS

ALL recycling needs to be empty, clean, dry, and loose.

NO medical waste.

Recycling must be clean, dry empty, and loose (not bagged)

- Plastics labeled 1,2 or 3
- Cardboard, white paper, paper bags
- Aluminum cans
- Glass bottles

Hornet Waste Challenge

This location can be a URL, another lesson, or an email address. You can type a description here.

GO TO LOCATION 1

CONTINUE

Alternative Transportation

Transportation

How often do you drive? Did you know that the EPA (Environmental Protection Agency) estimates that for every gallon of gasoline burned, you emit 20 pounds of CO₂ into the atmosphere? As one of the most troubling baseline greenhouse gases, this effectively contributes to the acceleration of anthropogenic climate change. It is a troubling notion, but we still need to get to where we need to go. The good news is you have options!

RIDE A BIKE

PUBLIC TRANSIT

CARPOOL

DRIVE AN EV

Did you know that a bicycle may be the most efficient form of transportation in the world? Per unit of energy required for propulsion, bicycles take the cake (and they burn it too; especially after that birthday party). Sac State has been recognized as a Bicycle Friendly Campus for five years running. With three locked bike compounds that are guarded by certified security officers, your ride has never been safer.



RIDE A BIKE

PUBLIC TRANSIT

CARPOOL

DRIVE AN EV

Through student fees, Sacramento Regional Transit has partnered with the university to provide unlimited access to the entire public transit system; including the light rail system and various bus lines that you can catch at the north end of campus. All you must do is go to Lassen Hall to pick up your OneCard commuter sleeve each semester and present it to the conductor upon entry to the bus or tram.



RIDE A BIKE

PUBLIC TRANSIT

CARPOOL

DRIVE AN EV

University Parking and Transportation provides a lower-cost carpool pass to students that wish to carpool with others that live nearby or are along their route to school. Priority parking is also offered to vehicles registered to the carpool pass on the lower floors of the parking structures.



RIDE A BIKE

PUBLIC TRANSIT

CARPOOL

DRIVE AN EV

If you have an electric or plug-in hybrid electric vehicle, Sac State also has 70 charging stations on campus that are priced at \$1/hr for the first four hours, so you can fuel up while building your knowledge!



RIDE A BIKE	PUBLIC TRANSIT	CARPOOL	DRIVE AN EV
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Do you want to help support our program?

Partnering with UTAPS, the Office of Sustainability runs a campuswide commuter survey each semester. Collecting this data is critical for being able to make more informed decisions about how we can improve sustainable transit options for students.

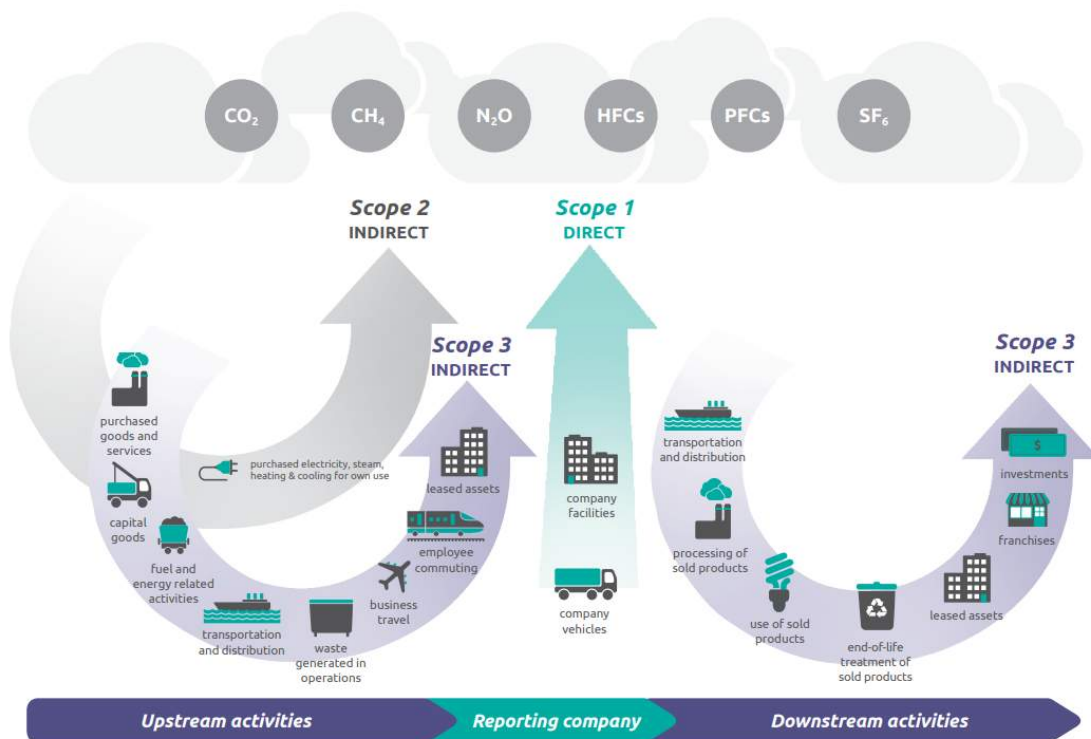
[SURVEY](#)

CONTINUE

Carbon Neutrality

Greenhouse Gas Emissions

Greenhouse gas emissions are produced from campus normal operations. The most common sources of emissions at Sac State come from using electricity or natural gas for heating, cooling, and lighting buildings. Additional emissions come from student, faculty, and staff transportation, as well as waste generation.



Sac State's emissions can be broken into 3 categories, or scopes:

The total of these 3 emissions scopes equals Sac States' total Greenhouse Gas emissions footprint. Sac State has a 2040 carbon neutrality goal for all 3 emissions scopes.

How Does Sac State reduce emissions?

Sac State reduces emissions by doing projects such as lighting retrofits, purchasing renewable energy, and promoting alternative transportation methods.

[Click here for a list of things you can do to help reduce our greenhouse gas emissions:](#)



Carpool



Bike to campus



Use public transportation



Shut down your computer at
the end of each day



Turn off the lights when you
leave



Dispose of food Waste in the
compost bins

CONTINUE

Student Resources

Student Resources



Student Sustainability Fund

Do you have an idea for a student sustainability project? Each year Sac State Sustainability funds small-scale student projects that make the campus more sustainable. Project funding typically

ranges from \$100 - \$2,000 and focuses on renewable energy, energy reduction, water reduction, waste reduction, or greenhouse gas reduction.

How does the fund work?

Step 1

Fund Application

Fill out the application form in the link below to apply for the funding:

<https://forms.office.com/r/GV9FmHr5Fh>

Step 2

Pitch your project

After submitting your application, the sustainability team will contact your team to schedule a short presentation. During this brief meeting, you will be asked to present your project and budget cost summary.

Step 3

Get ready to work

After the presentation, your team will be informed if you will receive the funds requested on your application, which means it is time for your team to start working on the project.

CONTINUE

Sustainability Internships

Sac State Sustainability is seeking student interns for a variety of projects. Examples of internship opportunities include but are not limited to:

**BAC YARD
INTERNSHIP:**

**CARBON
NEUTRALITY
INTERNSHIP**

**ZERO WASTE
INTERNSHIP**

**ENERGY
MANAGEMENT
INTERNSHIP:**

AI
IN

Interns assist Sac State Sustainability in meeting our 100% organic waste diversion goal by learning about composting and how organic waste is managed in a sustainable way within the University setting. BAC Yard interns also learn about beekeeping and honey extraction as well as our food production methods at the BAC Yard and Capital Public Radio Garden.



**BAC YARD
INTERNSHIP:**

**CARBON
NEUTRALITY
INTERNSHIP**

**ZERO WASTE
INTERNSHIP**

**ENERGY
MANAGEMENT
INTERNSHIP:**

**AC
IN**

Interns assist Sac State Sustainability in assessing campus greenhouse gas emissions and reduction strategies toward meeting our 2040 carbon neutrality goal.



**BAC YARD
INTERNSHIP:**

**CARBON
NEUTRALITY
INTERNSHIP**

**ZERO WASTE
INTERNSHIP**

**ENERGY
MANAGEMENT
INTERNSHIP:**

**AC
IN**

Interns assist Sac State Sustainability in assessing campus waste management and reduction projects toward meeting our 2030 zero waste goal.



**BAC YARD
INTERNSHIP:**

**CARBON
NEUTRALITY
INTERNSHIP**

**ZERO WASTE
INTERNSHIP**

**ENERGY
MANAGEMENT
INTERNSHIP:**

**AI
IN**

Interns assist Sac State Sustainability in monitoring campus energy management systems and implementing efficiency strategies.



**BAC YARD
INTERNSHIP:**

**CARBON
NEUTRALITY
INTERNSHIP**

**ZERO WASTE
INTERNSHIP**

**ENERGY
MANAGEMENT
INTERNSHIP:**

**AI
IN**

We also offer many other unique internships and encourage students to bring their project ideas to us.



CONTINUE



Volunteer Opportunities

The Office of Sustainability also offers volunteer opportunities. If you are interested in volunteering with us please fill out the volunteer application form using the following link:

<https://forms.office.com/r/JTbmpGQjSr>

CONTINUE

SUSTAINABLE DEVELOPMENT GOALS



United Nations Sustainable Development Solutions Network (SDSN)

Sac State is a member of the SDSN an alliance of nearly 2,000 experts from around the world on a variety of social, economic, and environmental issues focused on ending poverty and protecting the planet.

Members of the alliance have access to free classes and research through the Sustainable Development Goals Academy.

SDG Academy

Free educational resources from the world's leading experts on sustainable development

[GO TO SDG ACADEMY](#)

CONTINUE