

California State University Chico  
Campus Sustainability Committee



**2020-2021  
Annual Report**

## SUSTAINABILITY AT CHICO STATE

Chico State has long been a trailblazer in its commitment to sustainability. In 2006, the University was a founding signatory of the American College and University Presidents' Climate Commitment. This climate commitment is an outward expression of our campus's leadership in charting a path toward a more sustainable campus community. We are committed to addressing climate change by reducing and ultimately neutralizing greenhouse gas emissions by 2030 and accelerating research and educational efforts to equip students to be leaders for a more sustainable future.

## ABOUT THE CAMPUS SUSTAINABILITY COMMITTEE

Updated in 2019, [EM-19-033](#) outlines the framework for the Campus Sustainability Committee (CSC) which will serve as the institutional structure to implement the President's Climate Commitment. Using the [Climate Commitment and our Gold Sustainability Tracking, Assessment & Rating System™ \(STARS®\) status](#) as guides, the CSC works to fully integrate sustainability across campus and deepen roots within our community.

The membership of the CSC reflects the ability of the committee to facilitate accountability for attaining our goals and includes representation from all divisions on campus as well as most auxiliaries. The CSC provides leadership in identifying mechanisms, resources, and structure to integrate sustainability concepts into all core functions of the University.

Through subcommittees, the CSC addresses specific focus areas of campus sustainability goals. Each subcommittee is led by a member of the CSC and includes additional CSC members, students, faculty, staff, and community members as appropriate. In the 2020-21 academic year, there were 10 subcommittees. These subcommittees are the pathway for students, faculty, staff, and community members to actively participate in solving the challenges we face and to support the evolving needs of campus.





## CSC SUBCOMMITTEES

Committee	Lead
1 Curriculum	Tim Sistrunk
2 Research	Sandrine Matiasek
3 Student Engagement	Kendall Ross
4 Alternative Transportation	Cheri Chastain
5 Zero Waste	Bri Saseen
6 Procurement	Tom Rider
7 Natural Environment	Eli Goodsell
8 Water	Mike Alonzo
9 Agriculture	Cindy Daley
10 Energy & Built Environment	Mike Guzzi

### Subcommittees work together to:

- Identify annual priorities and goals that will progress campus wide goals
- Meet with members, create work plans and timelines, plan for resources needed, and create impactful campus projects
- Implement plans and provide progress reports to CSC

## ACADEMIC YEAR 2019-20 MEMBERSHIP ROSTER

Role	Name
VP of Academic Affairs	Blake Wentz, Designee
VP of Business and Finance	Mike Guzzi, Designee
AVP Facilities & Capital Projects	Mike Guzzi
Executive Director of the Associated Students	Tom Rider, Designee
Director of Energy & Sustainability	Cheri Chastain
University Housing	Denise Crosswhite
Associated Students Sustainability Coordinator	Mike Alonzo, Designee
Temporary Appointment in lieu of AS Recycling Coordinator	Sandrine Matiasek
Associated Students Sustainability Affairs Commissioner	Nicholas Blackwell
GE Pathway Sustainability Coordinator	Nate Millard
Rawlins Endowed Professor	Cindy Daley
Appointed by the President	Eli Goodsell
Appointed by VPAA	Jeff Decker
Appointed by VPUA	Rachel Simmons
Appointed by VPSA	Kendall Ross
Appointed by VPBF	Bri Saseen
Staff appointed by Staff Council	Natalie Carter
Staff appointed by Information Resources	Gaylene Kuintzle
Student appointed by AS Sustainability Coordinator	Jo Vidal
Student appointed by Director of Energy & Sustainability	Carter Dishman
Faculty member appointed by Academic Senate	Timothy Sistrunk



## MESSAGE FROM COMMITTEE CO-CHAIR MIKE GUZZI

Chico State has a proud and longstanding commitment to sustainability. With the restructuring of sustainability on campus in 2018 and the refresh of the Campus Sustainability Committee (CSC) in 2019, we were poised and ready to make substantial progress toward our sustainability goals. Then, in 2020, a global pandemic derailed not just campus operations, but everything in the world. Clouded by a global pandemic and devastating regional fires, the academic year 2020-21 was highly memorable but also one we all hope to put behind us. Despite the challenges that remaining virtual brought, our CSC continued the progress toward meeting our campus sustainability and climate goals.

Our 10 subcommittees set out on work plans to continue the forward momentum of addressing the many facets of sustainability. You will read about the accomplishments of those subcommittees in the remainder of this annual report.

In October 2020, the CSC facilitated making the online Global Conference on Sustainability in Higher Education (GSCHE) available to every student, faculty, and staff member at Chico State. Of the many campuses that hosted the virtual GSCHE, Chico State had more registered

participants than any other host campus, continuing our sustainability leadership status. We embraced the virtual learning world we were in and found ways to continue to integrate sustainability education into courses across the campus.

Recognizing the financial constraints being felt throughout our campus, the CSC decided to join the annual Giving Day campaign and connect with our generous donors. Although we did not meet our fundraising goals, we were able to spread the word about the great things the CSC is working on and learned how we can build a stronger case for philanthropy in the future. The challenges of changing our work and learning practices continue, but I have full confidence in the students, faculty, staff, and community members invested in meeting Chico State sustainability and climate goals. Despite a very difficult year, we must take time to celebrate our accomplishments and appreciate the hard work of the many contributors.

I look forward to continuing to reenergize and refocus sustainability efforts on our campus in the coming year.

*Hoorah!*



## CURRICULUM SUBCOMMITTEE

**Lead:** Tim Sistrunk, Faculty, History Department

**Committee members:** Cindy Daley (College of Agriculture, Center for Regenerative Agriculture and Resilient Systems), Angela Casler (Business Management), Nate Millard (First-Year Experience Program), Al Schademan (School of Education), Cheri Chastain (FMS-Sustainability), Mark Stemen (Geography and Planning Department)

### Key Initiatives and Accomplishments:

1. Created a policy to define responsibilities of a Green Curriculum Advisory Team (Green CAT) to promote climate change and climate resilience curriculum on campus.
2. Promoted University-wide participation in defining program learning outcomes to recognize courses that cover climate change and resilience or long-term systems sustainability.
3. Sought ideas from multiple stakeholders to promote climate change and resilience discussion and action ideas.
4. Wrote a draft policy to define Green CAT responsibilities and mechanism to seek faculty, student, staff, and community participation in accomplishing Chico State strategic priorities to respond to climate change and resilience throughout curriculum. This policy and ideas about

## RESEARCH SUBCOMMITTEE

**Lead:** Sandrine Matiasek, Assistant Professor, Geological and Environmental Sciences

**Committee members:** Mandy Banet (Biology), Natalie Carter (Chico State Enterprises), Pablo Cornejo-Warner (Civil Engineering), Jeff Davids (Civil Engineering and Agriculture), Kristen Kaczynski (Geological and Environmental Sciences), Jennifer Rotnem (Center for Water and the Environment)

### Key Initiatives and Accomplishments:

1. Created a survey aimed to generate a snapshot of sustainability research efforts on campus and gather information for the 2021 STARS report (Fall 2020). In the [survey](#), we expanded the definition of "sustainability research" to research, scholarship, and creative activities that relate to sustainability issues, in contrast to limiting the definition to funded research.
2. Distributed the Sustainability Research Survey via email in November and December 2020 through campus colleges and centers.
3. Investigated the potential of the Collaboratory platform as a database to catalog campus research initiatives (meetings from October 2020–April 2021). The [Collaboratory database](#) is managed through the [Chico State Office of Civic Engagement](#) to track, connect, report and plan work with community partners.
4. Analyzed data from survey responses and collected lists of research activities from Chico State Enterprises and the Center for Water and the Environment (spring 2021).
5. Prepared a report summarizing the Sustainability Research Survey results (spring 2021). The report is available on the CSU Chico sustainability website in the [documents library](#).
6. Created an inventory of sustainability research on campus by combining survey responses, CSE and CWE lists for the 2021 STARS report (spring 2021)

### Recommendations and/or plans for next academic year:

- Create a database of sustainability research on campus in collaboration with CSE.
- Create an online repository for sustainability research at Chico State with links to final grant reports, open access publications, etc. Example from [Delft University](#).

## STUDENT ENGAGEMENT SUBCOMMITTEE

**Lead:** Kendall Ross, director of Recreational Sports

**Committee members:** Sarah Wood, Katie Peterson, Mariana Apraiz-Pauls, Haley Coffman, Jabari Jenkins, Katrina Rynne

### Key Initiatives and Accomplishments:

1. Compiled a list of current departments, programs, and organizations that focus on student engagement of campus sustainability.
2. Held in-person America Recycles Day volunteering event to build awareness on November 15, 2020.
  - a. Approximately 26 students volunteered to clean up the downtown student housing area (south of campus).
3. Organized a National Arbor Day collaborative event that included a campus tree tour featuring virtual and in-person offerings.
  - a. Approximately 16 students attended the in-person tour with 147 views on the Chico Green Campus Instagram page.
4. Increased social media presence for Chico Green Campus from 400 followers at the start of the semester to 533 as of June 1, 2021.
  - a. This was accomplished by collaborating with Summer Orientation pages to get new students following and interested in campus sustainability efforts.
5. Increased Chico State attendance at the AASHE Global Conference on Sustainability in Higher Education for which Chico State was a host institution. Chico State had more participants than any host institution, with 337 participants (215 of those being students). This increased awareness, and attendance was helped by sharing information on the Chico State main Instagram account via the Chico Green Campus account.

### Recommendations and/or plans for next academic year:

Continue to increase awareness via social media outlets, as well as the two in-person events (America Recycles Day and the Campus Tree Tour). These events have a solid foundation and allow for easy collaboration with other campus entities.



Justine Lucero (left) and Haley Adams (right) look through clothes at the clothing swap as students get a chance to discover the awesome sustainable organizations and departments on our campus through interactive activities, upcycling and DIY activities, clothing swap, during Sustainability Day.

## ALTERNATIVE TRANSPORTATION SUBCOMMITTEE

**Lead:** Cheri Chastain, Director of Energy & Sustainability, Facilities Management and Services

**Committee members:** Wyatt West (City of Chico), LaDona Knigge (Geography and Planning), Christopher Nicodemus (University Police), Bikram Kahlon (City of Chico), Ivan Garcia (Butte County Association of Governments), Heather Mccafferty (Anthropology), Jeff Schwein (GreenDOT Transportation), John Pearson (Chico Velo), Chrissy Hursh (Library Research), Carter Dishman (student), Ann Bykerk-Kauffman (Geological and Environmental Sciences)

### Key Initiatives and Accomplishments:

1. Secured funding to make the pilot bike path through campus a permanent path. Construction should be complete prior to the beginning of the fall 2021 semester.
2. Applied for Bicycle Friendly University (BFU) status through the League of American Bicyclists.
  - a. We were not recognized as a BFU but will use the report as a tool to become a BFU.
3. Created two videos to promote the B-Line as a safe mode of alternative transportation—one as a short promo and another with more instructions on how to ride the bus.
4. Began bike registration, locking, and reporting educational signage to be placed at bike racks.
5. Partnered with students in MADT 432 to develop education and outreach materials around biking that can be utilized when the path is fully open on campus.
6. Adopted a section of City bike path from campus along the railroad tracks all the way to West Lindo Avenue. In the spring 2021 semester, three clean-ups were hosted in which 53 volunteers contributed 106 hours of service.
  - a. Moving forward, CAVE will organize monthly clean-ups of the path and the subcommittee will promote the opportunities.
7. Began the estimate process to build a secure bike parking facility in Parking Structure 1. Once an estimate is determined, we can work to secure funding.
8. Cheri Chastain, director of energy and sustainability, participated in the League of American Bicyclists League Cycling Instructor (LCI) training and is now a certified LCI. With the LCI, Chastain will be able to host Smart Cycling courses for Chico State students, faculty, and staff, starting summer 2021.

### Recommendations and/or plans for next academic year:

- Use the League of American Bicyclists report to develop an implementation plan to become a Bicycle Friendly University.
- Provide ample education and outreach to campus and community about safe bike path practices.
- Work with incoming first-year and on-campus residents to instill alternative transportation values early in students' academic careers.
- Continue mapping work and partnerships with the City and community partners to ensure adequate alternative transportation infrastructure.
- Draft a travel mitigation plan to fund greenhouse gas reduction projects.
- Draft a geographic parking permit restriction plan as well as a tiered parking permit system.

## ZERO WASTE SUBCOMMITTEE

**Lead:** Bri Saseen, Accounts Payables

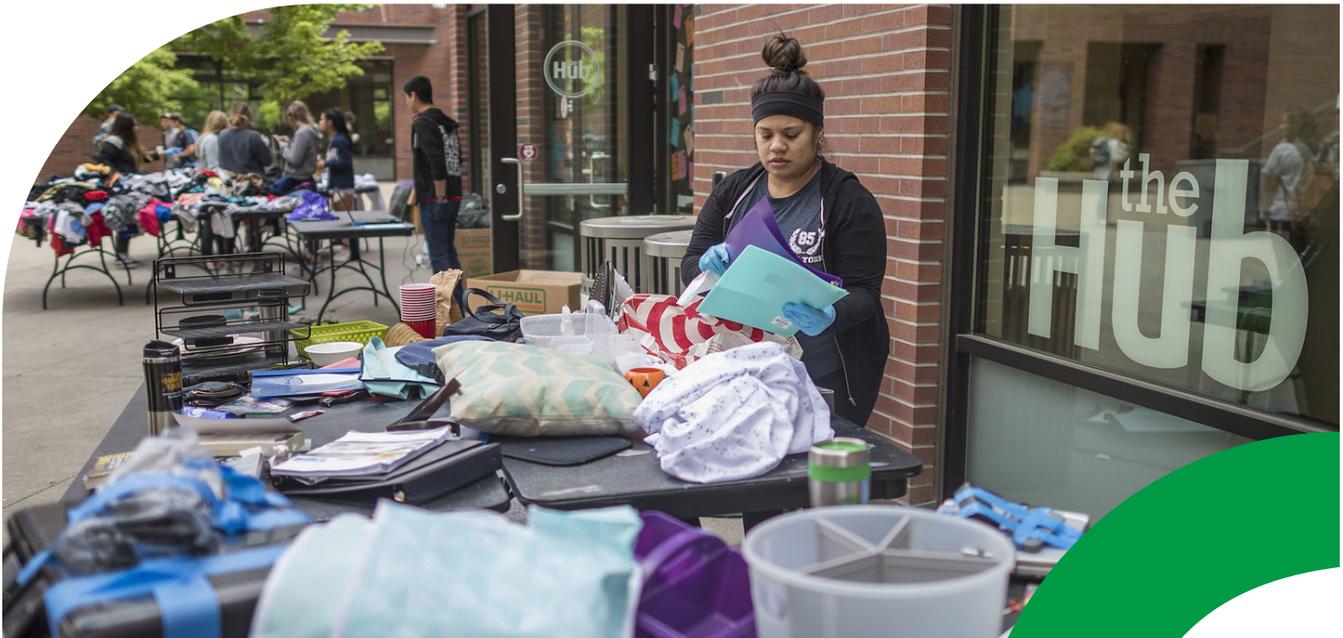
**Committee members:** Mike Alonzo (FMS–Grounds), Durbin Sayers (FMS–Moving & Custodial), Cheri Chastain (FMS-Sustainability), Yenika Brambila (student), Becky Holden (Recology), Ron Yates (FMS-Zero Waste Laborer), Natalie Carter (Chico State Enterprises), Thomas Rider (AS-Dining), Daisy Chavez (student)

### Key Initiatives and Accomplishments:

1. Began an inventory of waste and recycling receptacles.
2. Made progress on establishing a Zero-Waste Hub on campus. Met with consultants and established a site location. Phase I to be completed in fall 2021.
3. Purchased upgraded exterior bins which will be distributed across campus by end of summer 2021.
4. Hosted six “Recycling 101” workshops to educate campus users on proper recycling.

### Recommendations and/or plans for next academic year:

- Continue efforts to standardize bins around campus.
- Continue efforts to complete Phase II of the Zero-Waste Hub on campus.
- Continue to work toward creating and maintaining waste tracking/data management system.
- Expand compost/food waste diversion programming on campus.
- Continue Recycling 101 trainings.



Mary Barrios, 23, volunteers to help sort out the collected donations from the residence who are moving out in the annual Diversion Excursion move out program in the Residence Halls that diverts thousands of pounds of reusable materials away from the local landfill.



The Associated Students Dining Services are introducing a new OZZI system as a way to push our value of sustainability by reducing our carbon footprint with reusable O2GO containers.

## PROCUREMENT SUBCOMMITTEE

**Lead:** Thomas Rider, Dining Services Director, Associated Students

**Committee members:** Sara Rumiano (Procurement and Contract Services), Zachary Smith (FMS– Design and Construction), Kenny Wahl (Environmental Health and Safety), , Cheri Chastain (FMS– Sustainability)

### Key Initiatives and Accomplishments:

1. Worked to plan the installation of the Ozzi reusable to-go food containers which will be implemented in summer 2021 and eliminate thousands of single-use food containers from landfill.
2. Adjusted the menu at the BMU Marketplace to eliminate disposable clamshells and boxes.
3. Began efforts for charging for single-use cups in all AS Dining operations to encourage use of refillable beverage containers. A portion of the fee for single-use cups will fund additional Ozzi reusable containers.
4. Worked with University Printing Services to renew the FSC Certification.

### Recommendations and/or plans for next academic year:

- Tailor the Chico State’s CSUBuy menus toward sustainable choices, have a page of links on our website that will direct campus requestors toward the applicable sustainable procurement policy page(s) relating to their purchases, and help to develop a campus informational outreach campaign to those campus requestors
- Promote the use of FSC print jobs within University Printing Services.

## NATURAL ENVIRONMENT SUBCOMMITTEE

**Lead:** Eli Goodsell, Director, Big Chico Creek Ecological Reserve

**Committee members:** Cindy Daley (Center for Regenerative Agriculture and Resilient Systems), Jason Schwenkler (Geographical Information Center), Megan Kurtz (Off-Campus Housing), Jennifer Rotnem (Center for Water and the Environment)

### Key Initiatives and Accomplishments:

Over the past year, the Environmental Resiliency Collaborative leadership team has collected feedback from local, regional, state, and federal stakeholders to prioritize the Collaborative's goals and identify projects. A mission and vision have been finalized for the collaborative and the collaborative was formally launched in March 2021 with a logo and website. The Environmental Resiliency Collaborative has already identified and started projects with community partners. The Collaborative will work to increase website presence while identifying and engaging additional community stakeholders.

### Recommendations and/or plans for next academic year:

- Identify, fund, and report on a minimum of two Environmental Resiliency Collaborative projects with community partners.



## WATER SUBCOMMITTEE

**Lead:** Mike Alonzo, Supervisor of Grounds & Landscape Services, Facilities Management and Services

**Committee members:** Brian Wunsch (Garden Specialist, Facilities Management and Services), David Kehn (California Water Service Company), Amanda Moylan (student)

### **Key Initiatives and Accomplishments:**

- 1.** The Committee worked with Cal Water to clean up the Chico State accounts—a few were not being tracked while others were not actually Chico State properties.
- 2.** All campus hydration stations and water fountains were cataloged and sent to CMT to be added to the campus interactive map. CMT staff have multiple projects underway, and this request is toward the bottom of their project queue.
- 3.** FMS plumbers salvaged numerous low-flow plumbing fixtures ahead of the Physical Sciences Building demolition, using them to replace outdated equipment across campus—\$8,200 in new fixture costs were saved, and water savings are projected to be 128,00 gallons annually.
- 4.** SFAC funds were awarded to student Amanda Moylan for her project to capture HVAC condensation and deliver it to the landscape as irrigation rather than losing it down the drain.
- 5.** Irrigation upgrades were made across campus to better monitor existing systems and to consolidate 20-plus irrigation zones into the central control network. New controllers at the Science Building and Albert E. Warrens Reception Center allow for automatic adjustments that improve irrigation efficiency and plant health. Improved communication antennas were added to the sports fields, improving efficiency and reducing downtime.
- 6.** Chico State embraced the CSU single-use plastic ban policy and eliminated single-use bottles from the 2021 Commencement ceremonies! In partnership with Chico State Green campus and University Public Events, reusable souvenir bottles were given to grads. The campus's Water Monster portable hydration stations made their debut to refill bottles with no wasted water or single-use plastic bottles.
- 7.** Crews from the Big Chico Creek Ecological Reserve were commissioned to clean trash and debris from Big Chico Creek as well as remove invasive plant species ahead of the spring 2021 Commencement ceremonies.

### **Recommendations and/or plans for next academic year:**

- Work with Cal Water to install real-time water meters for more up-to-date data and analysis.
- Build on lessons learned with the deployment of the Water Monsters to make it easier to use the bulk water deliver at future events.

## AGRICULTURE SUBCOMMITTEE

**Lead:** Cindy Daley, Director, Center for Regenerative Agriculture and Resilient Systems; Faculty, College of Agriculture

**Committee members:** Lee Altier (Plant and Soil Science); Jamal Javanmardi (Plant and Soil Science); Scott Grist (Organic Vegetable Project, Center for Regenerative Agriculture and Resilience Systems); Tom Rider (AS Dining Services); Jake Brimlow (Agricultural Business); Garrett Liles (Plant and Soil Science); Priya Tuvell (Center for Regenerative Agriculture and Resilience Systems); Maria Giovanni (Food Science); Sheila McQuaid (Center for Healthy Communities); Matt Housley (University Farm); Raquel Krach (student and farmer)

### Key Initiatives and Accomplishments:

1. Expanded the OVP program to include more CSA memberships and sustained Wildcat Pantry support throughout COVID-19 pandemic (funded through CRARS).
2. Authored a Community Food Program Project grant together with Jesus Center (local nonprofit) to improve our capacity to provide fresh vegetables on campus and within our local community; Included workforce development capacity (funded through the CRARS).
3. The Carbon Farm Plan (CFP) for the University Farm and Meridian Road rangeland property is underway through CRARS in partnership with the Carbon Cycle Institute. The entire farm will be considered, including 150 acres of irrigated pasture; 325 acres of row crop ground; 200 acres of orchards (funded by the CRARS and CCI).
4. Soil carbon measurements have been collected and assessed for baseline levels of soil carbon through the RAD lab and Professor Garrett Liles and his students for the University Farm, Meridian Road property, and the University campus (funded through the President's Climate Leadership Commitment and the CRARS).
5. Application submitted to the Regional Food Systems Partnerships entitled "Leveraging Public and Private Partnerships to Create a Sustainable Plan to Strengthen Butte County's Local Food System" through Butte County Department of Employment and Social Services by Maria Giovanni and the Butte County Food Network for \$250,000 for planning and design.
6. Secured \$6.9 million in funding through Regional Conservation Partnership Program grant for CFP planning throughout our service region, working in partnership with Resource Conservation Districts and the Carbon Cycle Institute.
7. Secured \$300,000 in funding through National Institutes of Food and Agriculture to support a Regional Technical Service Provider Training Program—to create more TSPs that can write CFPs through California.

### Recommendations and/or plans for next academic year:

- Complete the Carbon Farm Planning effort for the University Farm and Meridian Road property.
- Submit the CFP for funding with state, federal and private foundations.
- Resubmit Community Food Project Funding grants to expand our local food production.
- Identify grant funding and solicit to create a food recycling program at the University Farm.
- Launch the RCPP and begin CFP and implementation of carbon smart farming practices throughout the state.
- Launch TSP training.

## ENERGY & BUILT ENVIRONMENT SUBCOMMITTEE

**Lead:** Mike Guzzi, Associate Vice President, Facilities Management and Services

**Committee members:** Jason Whiteley (FMS), Marie Patterson (Construction Management)  
Cheri Chastain (FMS)

### Key Initiatives and Accomplishments:

1. In November 2020, the Chico State Master Plan was adopted by the CSU Board of Trustees. The plan outlines phases of campus development and includes a framework to incorporate sustainability throughout the design and construction of the master plan.
2. FMS contracted with faculty member Marie Patterson to write and publish a campus Strategic Energy Master Plan (SEMP) outlining steps to reduce emissions from natural gas combustion and electricity
3. Through a Master Enabling Agreement (MEA) established by the Chancellor's Office, a contract was issued to add solar to the new Science Building, Wildcat Recreation Center (WREC), and Bell Memorial Union (BMU), and finishing out the solar on Parking Structure II.
4. A contract was awarded for the construction of a new Butte Hall. Included in the contract is the stipulation that the building will be a net zero energy building
5. Funding was identified to begin energy efficiency upgrades to the Meriam Library. Design is underway and construction is anticipated to begin in the 2021-22 academic year.
6. As part of an update to the WellCat Health Center, the lighting fixtures and controls were updated for optimal efficiency.

### Recommendations and/or plans for next academic year:

- Continue to implement the recommendations made in the SEMP.
- Complete the lighting upgrades in the Meriam Library.
- Work with the Green Campus team to embark on energy efficiency audits within campus buildings.
- Ensure that design and construction for net zero energy continues.
- Identify funding to continue to electrify the Chico State campus and ensure electrical infrastructure can support the added load and be resilient to the impacts of climate change.
- Continue the planning and implementation for the PEM boiler in Shurmer Gym.



Operating Engineer Eric Fleming works at the Chico State Boiler Chiller Plant. Operating Engineers ensure that the campus has cost effective heating and cooling 24 hours a day throughout the majority of the year.

## THIS WAY TO SUSTAINABILITY CONFERENCE 2021

The 16th annual This Way to Sustainability Conference took place virtually March 25-26, 2021. With a theme of “Resilience from the Ground Up: Strengthening Diversity in Soil, Communities and Economies,” the conference featured keynote speakers Leah Penniman, farmer, activist, author, and teacher; Katharine Wilkinson, author, strategist, and teacher; Jennifer Atkinson, author and teacher; and Bill Shireman, president & CEO of Future 500. The conference included livestream interactive presentations from leaders, researchers, and students in seven different tracks that focused on all aspects of sustainability: environmental, land planning and natural systems; built environments, engineering and waste management; health, wellness, diet and nutrition; sustainable food systems and regenerative agriculture; entrepreneurship, marketing and supply chain management;

social justice and public policy; and arts, humanities and creative expression. The conference also hosted its first virtual art gallery and brought back a virtual poster symposium. A total of 1,349 people registered to attend the conference, 80% being students from across the state, country, and globe. In addition to our campus, 17 CSUs participated, along with 36 other university campuses, colleges, and school districts. Being a virtual conference also boasted a carbon-free-commute conference! For the first time, speakers at the conference were given the opportunity to publish their work in the newly formed CSU Journal of Sustainability and Climate Change. The journal is the result of a collaboration between the Chancellor’s Office’s Department of Sustainability and Dept of Research. The first issue is expected to publish in fall 2021.

## LOOKING AHEAD: 2022 CONFERENCE

The 2022 conference will take place March 24-25, 2022, and will be a hybrid format with some livestreamed content as well as some in-person content. The planning team is working to secure funding so the entire conference can be free for anyone interested in participating. Details will be posted to the [TWTS conference website](#) as they are confirmed.



## CONCLUSION AND HOW TO GET INVOLVED

All of the subcommittees within the CSC welcome engaged members. If you are interested in participating in a subcommittee, simply reach out to the subcommittee chair and ask how you can support their efforts!

To learn more, visit [www.csuchico.edu/sustainability](http://www.csuchico.edu/sustainability) or reach out via email to [sustainability@csuchico.edu](mailto:sustainability@csuchico.edu).



