# SustainableSDSU 2019 Progress Report



sustainable.sdsu.edu

## A Letter from Our President



San Diego State University is committed to paving the way for a sustainable future, both locally and globally. You can see it in our teaching, research and dedication to sustainability on our own campus. Sustainability is core to many of our recent initiatives from the Aztecs Rock Hunger Drive and our focus on student food issues, to addressing transportation and parking, encouraging academic and co-curricular program development, and in our larger commitment to overall campus carbon neutrality. With growth on the horizon at both our SDSU Imperial Valley and Mission Valley campuses, our physical spaces are part of our sustainable future. The pages of this report show just how the SDSU community is keeping a sustainable environment a top commitment.

#### Dr. Adela de la Torre

President San Diego State University

To enact long lasting change on campus through practices, programs, projects, and policies that enhance quality of life, improve economic efficiency, and promote environmental responsibility while connecting, educating, and influencing culture to empower the campus community to be global citizens, compassionate leaders, and ethical innovators.



## **Table of Contents**

ONE   Climate Action	5
TWO   Energy	8
THREE   Transportation	10
FOUR   Waste Management	12
FIVE   Food	13
SIX   Water	14
SEVEN   Green Buildings	16
EIGHT   Social Responsibility	18
NINE   Academics	20
TEN   Awards & Recognitions	21
ELEVEN   Engagement	22
WELVE   Get Involved	23

## **Sustainability Roadmap**

#### **Greenhouse Gas Emissions**

- Reach 1990 campuswide carbon
  emissions levels by 2020
- Reach 1990 operational emissions levels
  by 2025
- Operational carbon neutrality goal by 2040
- Full campus carbon neutrality by 2050

#### Energy

- Reduce Life Cycle Cost (LCC) and achieve carbon neutrality goal
- Identifying and implementing critical energy efficiency projects (e.g., lighting retrofits)
- Access feasibility of new renewable generation projects
- Pursue solar Power Purchase Agreement
  (PPA) bids
- Investigate battery storage opportunities

#### **New Construction & Major Renovations**

- Achieve LEED Silver standard at a minimum, Gold or Platinum encouraged
- Use of a total-cost-of-ownership model required with inputs from capital costs, energy models, maintenance and replacement costs

#### **Existing Buildings**

- Implement recommendations set in the AASHE Sustainability Tracking Assessment & Rating System (STARS) Roadmap to Gold for campus buildings
- Implement the Green Office Certification program and identify departmental sustainability liaisons

#### **Building Operations**

- Implement an Energy Information System (EIS) and capture building-level meters for all utilities
- Develop a continuous commissioning program
- Implement Fault Detection Diagnostics
  (FDD)
- Implement Monitoring-Based
  Commissioning (MBCx)

#### Waste Management

- 50% diversion of non-construction and demolition waste by 2020
- 60% total diversion by 2020
- 80% total diversion by 2025
- Develop infrastructure for post-consumer food composting

#### Food

- Increase quantity of food grown on campus
- 20% of food purchases from sustainable sources by 2020 (as defined by the Real Food Challenge or equivalent systems)
- Increase self-operated facilities from Level-2 to 3 under the Certified Green Restaurant standards

#### Water

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- 25% reduction below 2013 water usage by 2020
- Landscape plantings are droughtresistant
- 30% reduction below 2013 water usage by 2025
- Investigate feasibility of recycled water

#### Transportation

- Promoting incentives to reduce singlevehicle occupancy trips
- Improve bike and pedestrian amenities
- Increasing electric vehicle-ready infrastructure (i.e. charging stations)

#### Engagement

- Installation of public-facing, interactive energy dashboards around campus
- Mobile Food Pantry addresses food
  insecurity
- Growing student sustainability programs
- Promoting our in-person sustainability tour highlighting a variety of sustainability features on campus
- Increase the number of academic courses and research that address sustainability

#### Procurement

- Vehicle fleet purchases prioritize electric, plug-in hybrid, then hybrids
- Electronic equipment to meet EPEAT
  Silver rating

## **ONE** | Climate Action

## 🀝 March 2014

- San Diego State University signed Second Nature's American College and
- University Presidents' Climate Commitment to confirm the University's
- commitment to sustainability, which required SDSU to develop a Climate
- Action Plan to achieve carbon neutrality.

## What is Carbon Neutrality?

- Carbon neutrality refers to the state of an entity (such as a company,
- service, product or event), where the carbon emissions caused by them
- have been balanced out by funding an equivalent amount of carbon
- savings through many different strategies which could include installing
  - renewable energy, carbon sequestration, or purchasing carbon offsets

## What is a Climate Action Plan (CAP)?

- The CAP sets interim milestones and strategies to achieve carbon neutrality
- and improve campus sustainability efforts across operational, engagement
- and academic areas. The Plan provides an assessment, vision, and set
- of short, medium, or long-term actions to achieve the goals within each
- section.

## 🗳 May 2014

The CSU Board of Trustees adopted the first CSU systemwide Sustainability Policy establishing the following major goals:

- » Reduce Greenhouse Gas (GHG) emissions to 1990 levels by 2020
- » Reduce GHG 80% below 1990 level
- by 2040

## 🖧 April 2017

Former SDSU President Elliot Hirshman

- approved our CAP committing to:
  - » Operational carbon neutrality by 2040

## » Full campus carbon neutrality by 2050

- Strategies for achieving these goals
- can be found in detail within the CAP
- at sustainable.sdsu.edu/climate-action/
- carbon-commitment.

## September 2018

- Former CA Governor Brown signed:
  - » EB-55-18 committing California to carbon neutrality by 2045
  - SB-100 committing California to clean electricity by 2045

## SDSU SUSTAINABILITY FACTS

ENERGY USE (excluding auxiliaries)	122 kBTU/SF
ENERGY USE (including auxiliaries)	97 kBTU/SF
CARBON RELEASED (excluding transportation,	1.65 MT CO2e/FTES water, and waste)
CARBON RELEASED (including transportation,	3.2 MT CO2e/FTES water, and waste)
ONSITE RENEWABLES	2.4% of electricity need
WATER USE	6783 gallons/FTES
WASTE GENERATED (excluding C&D)	131 lbs/FTES
WASTE DIVERSION RAT (excluding C&D)	E 36%
WASTE DIVERSION RAT (including C&D)	E 60 %
Fiscal Year 2017/18 MTE CO2e – Metric Tons o FTES – Full Time Equivale	nt Students

Diversion Rate – % of waste diverted from landfill C&D – Construction & Demolition

5

# **Carbon Emissions**

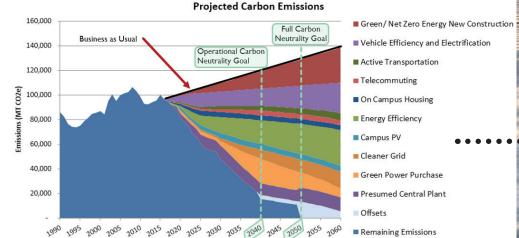
San Diego State University has completed the initial GHG inventory and our Climate Action Plan was approved. We are now implementing and tracking the status of each detailed strategy to move campus toward carbon neutrality. To review the status of each of the climate actions identified in our Climate Action Plan, go to *sustainable.sdsu.edu/climate-action/progress.* The majority of campus emissions are operational emissions, or Scope 1 and 2 emissions. However, the two largest sources of carbon emissions are from the cogeneration plant (Scope 1) and from commuting (Scope 3).

## Scope 1 emissions are direct emissions from

campus sources such as the cogeneration plant, boilers, and campus fleet vehicles.

**Scope 2 emissions** are indirect emissions from any electricity the campus needs to purchase.

**Scope 3 emissions** are indirect emissions, including commuting by students, faculty, and staff, as well as any emissions associated with university official travel. Emissions associated with waste generation and water consumption are included here.







#### **Pathway to Carbon Neutrality**

This graph shows projected carbon emissions and a set of mitigation strategies, or wedges to achieve carbon neutrality while operating the existing cogeneration plant on campus. The top line of the graph represents historical and projected businessas-usual emissions. Each wedge represents the estimated impact of a strategy. Green Power Purchases and Carbon Offsets are necessary to meet our neutrality goals, but other actions are prioritized.

7



#### **Energy Generation**

Building energy use is responsible for nearly all of the campus' operational greenhouse gas emissions (scopes 1 and 2). Energy is used in a variety of ways on campus, including lighting buildings and exteriors, heating and cooling spaces, and powering computers, lab equipment, and plug loads.

The cogeneration plant provides most of the campus electricity and steam. We simultaneously produce electricity while recovering and utilizing the heat produced. The plant burns natural gas to drive turbines, which generate electricity and waste heat. This waste heat is then used to drive another turbine that generates electricity and supplies heat to campus. The remaining energy needs for campus are met by procuring it through the electric grid. This grid energy is some of the cleanest available because of the amount of solar and wind produced on it.

To achieve carbon neutrality, the natural gas-driven cogeneration plant requires carbon offsets or biogas, which are in short supply and are expensive. SDSU is in the process of moving away from using the cogeneration plant and converting from steam to hot water with distributed natural gas boilers across campus. We will procure electricity from the grid, which will reduce carbon emissions. SDSU also is analyzing electric heat recovery chillers, solar photovoltaics, and energy storage to further reduce our carbon emissions.

#### **Renewable Energy**

SDSU has 1 MW of on-site solar photovoltaics installed, which provides 3% of campus electricity. The main campus has space for approximately 4 MW more of solar arrays. A study is underway reviewing the feasibility of installing solar at the main campus along with the Calexico and the Brawley campuses.

#### **Energy Efficiency**

While it's important to supply campus with clean, renewable technology, there are many improvements we can make to campus to reduce our energy usage through more efficient equipment, optimizing existing systems, and better controlling our heating and cooling. Carbon emissions can be reduced by using cleaner sources of energy coupled with energy efficiency upgrade strategies like:

- Retro-Commissioning A process that improves the efficiency of an existing building's equipment and systems, often also resolving problems that developed overtime as systems age, or as the building's use changes. This process can cut energy use per building by 20 to 40%. Retro-commissioning at Arts & Letters cut energy use by over 35%. Other projects currently underway include CSL, GMCS, Fowler, and Peterson. These are funded by a revolving loan fund where energy savings go back into the fund to support more projects.
- **LED Lighting Fixture Upgrades** There is currently a project to convert all roadways, parking lots, and parking structure roofs to LED lighting by the end of 2019.
- **Implentation of Events2HVAC** This program allows the room reservation system to talk to the Building Automation System (BAS) controlling heating and cooling units to turn-on 20 minutes before a room is occupied and to turn-off afterwards, saving energy and providing increased thermal comfort.
- **Implementation of a new Energy Information System (EIS)** Enabling better analysis of energy-savings opportunities and automating invoicing.
- **Modernization of Building Controls** Building controls are being converted from an older pneumatic system to digital, which improves comfort and equipment control.
- Energy Dashboards -Interactive dashboards are being installed around campus that display energy, water, and waste data for each building to inform and engage the community.



Storm Hall Terrace Photovoltaic Canopy

## **THREE** | Transportation

Students, faculty, and staff commuting to campus are responsible for 40% of SDSU's carbon footprint. While on-campus, biking, skateboarding, walking, and scooters are the main modes of transportation.

#### **Bicycle Programs**

- Bike maintenance and air filling stations installed throughout campus
- Bike and walk lanes incorporated on campus
- 93 bike racks installed on campus
- Annual Bike to Campus Day

#### **Rideshare Programs**

- Zimride connects the SDSU community to other drivers or riders commuting to and from campus
- Discounted rates for Zipcar
- Red & Black Shuttle runs after hours at shuttle shops on and surrounding campus

### Electric Vehicle (EV) Programs

- · ChargePoint Stations installed with lower pricing
- EV discounts for faculty, staff, and students with multiple local dealerships
- 43 campus fleet EVs

## **Public Transportation**

- SDSU is located on the MTS trolley system, which connects to many surrounding communities as well as downtown
- Several MTS bus lines service campus
- Discounted trolley passes are available to students

### **Sophomore Live-On Requirement**

- Sophomore students are required to live in oncampus housing starting fall 2019
- 10.8% potential reduction in transportation emissions with increased on-campus living

### **Interactive Campus Transportation Map**

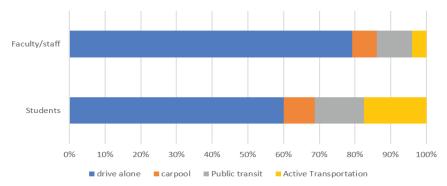
- Displays locations of bike lanes and racks; bus, shuttle, and trolley stops; and rideshare pick-up/ drop-off
- To access the map, go to SDSU's Bike-Lane Safety Guideline 2017

### Pathway to Zero-Carbon Campus Commuting

SDSU has set a target to reach full carbon neutrality by 2050, and as transportation is the second largest source of campus carbon emissions, SDSU is committed to conducting an annual survey of the methods individuals use to commute to campus to measure the carbon impact. Through this comprehensive online survey, four policy options were developed, and if implemented in combination, a pathway to zero-carbon commuting for SDSU by 2050 could be achieved, including:

- a) more on-campus student housing,
- b) expanding public transit use by lowering cost of transit pass,
- c) electrifying vehicles, and
- d) electrifying public transit.

The off-campus commuter mode split graph below reveals the weighted commuter modes of transportation for student, faculty, and staff for Spring 2018.



For more information regarding this survey and the four pathways developed with corresponding emissions reductions to achieve a zero-carbon commuting campus, go to *sustainable.sdsu.edu/resources/metrics-reports.* 

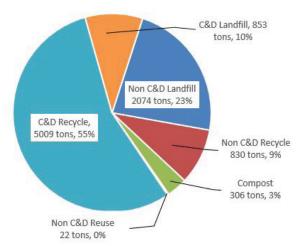


Electric Vehicles charging at ChargePoint stations on campus.

## FOUR | Waste Management

San Diego State University recognizes that a Zero Waste program is essential in achieving full campus carbon neutrality. SDSU has recycling programs in place for mixed-use recycling, yard waste composting, pre-consumer composting, electronic waste, construction and demolition, and a re-use surplus program.

From 2017 to 2018, recycling increased from 22% to 26% for non-construction and demolition waste. An increase in recycling rates was realized at the end of 2018 since every classroom now has both a recycle and a landfill bin. The CSUs require 80% diversion by 2020 and motivate each campus to achieve zero waste soon after.



- Plastic utensils are kept behind counters and are given out at request only.
- By 2023 all single-use-plastics are banned by CSU policy. Single-use plastic straws have already been banned at SDSU.
- Over 2 million plastic water bottles have been mitigated due to the use of campus hydration stations.
- SDSU participates annually in RecycleMania, which has raised awareness of diversion and has garnered student involvement.
- SDSU's surplus goods program allows faculty and staff to shop used furniture or equipment on campus at Logistical Services or on SDSU's public surplus website. If unclaimed, the furniture and equipment are donated to low-income schools as requested.
- Recycling is Beautiful is a student-led campaign where inspirational wraps for concrete recycling bins are designed by graphic design students to further promote and educate on recycling.
- Achieved a 98% diversion rate for all move-out donations during the 2018 move-out-day.

For more information, go to *sustainable*. *sdsu.edu/initiatives/zero-waste*.



Student outreach promoting recycling.

## FIVE | Food

### **Green Restaurant Certification**

SDSU Dining has committed to sustainability through a partnership with the Green Restaurant Association (GRA). In 2015, SDSU Dining became the first campus to require all of its tenants meet the GRA's Certified Green Restaurant environmental standards. As of 2019, SDSU holds the record for the most food service entities that meet the 2nd Star Certified Green Restaurant standards with 24.

## **Farmers Market**

The weekly campus Farmers Market began in 2009 with only 8 food vendors. It has since blossomed with more than 16 vendors offering a variety of culinary delights across different cultures.

## **Campus Grown**

SDSU Dining utilizes Hello Walkway Garden to grow and harvest a variety of produce including chard, carrots, tomatoes, peppers, pole beans, squash, radishes, and herbs that are distributed to various campus dining locations.

Another source of campus grown produce are the 40 aeroponic towers located on The Garden's patio at Cuicacalli that yield over 400 heads of leafy greens every week.

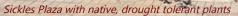
SDSU has a variety of edible fruits that grow on campus. Sustainable SDSU has identified and located all the fruit trees on campus, compiling them into an interactive food map for anyone that needs a snack between classes!



Edible SDSU Food Map for campus located at sustainable.sdsu.edu/initiatives/food



## SIX | Water



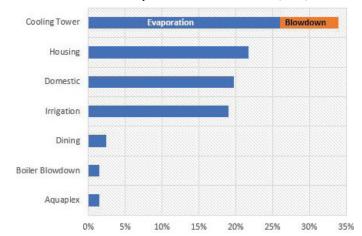
#### Water Use

Water is a precious resource, especially in drought-prone San Diego. SDSU has made strides to reduce campus water consumption. The largest identified water users on campus are the cooling towers. These devices remove heat from inside campus buildings rejecting it to the atomsphere, and support the power plant and chilled water plants that provide electricity, steam, and chilled water to campus.

The second and third largest identified contributors are housing and domestic water usage, which include items such as showering and toilet flushing. Irrigation, including measured and estimated usage, follows as a close fourth.

SDSUs campus water reduction goals include:

- 25% reduction below 2013 water usage by 2020
- 30% reduction below 2013 water usage by 2025



#### **Campus Water Use Breakdown (FY18)**

### Landscape

SDSU has been moving towards more responsible landscapes. Several locations, include the Mediterranean Garden, Student Union, Alumni Center, and Sickles Plaza, all feature drought-tolerant plants.

SDSU received a Campus as a Living Lab grant from the Chancellor's Office. In collaboration with Professor Diana Richardson's Geography of Recreational Land Use class, campus was able to refresh the lawn space near the College of Professional Studies and Fine Arts (PSFA). The class recommended prioritizing shading and seating. The site now features trees, boulder seats, and native plants.

Campus landscape maintains an urban forest tree inventory and a CalSense irrigation system that is remotely controlled based on evapotranspiration rates and precipitation. Maintaining and growing the urban tree canopy is a priority for the campus, and as such, the tree count has increased from 3,800 trees in 2012 to 5,800 trees in 2018.

With water at a premium in Southern California, SDSU landscape has been testing creative technologies to mitigate water from evaporating away. One technology is a natural gel that is injected into the ground that will retain water at the ground soil level for plants. Other technologies include better irrigation techniques including drip irrigation androtators.

### **Domestic Water**

SDSU has completed several projects to reduce domestic water consumption; however, there are still some fixtures that can be upgraded. The first phase of a leak-detection effort on the domestic water distribution system, indentifying possible leaks around campus, has been completed.

### Water Reclamation

At the Student Union, rainwater is collected and stored. Additionally, the campus collects condensate water from cooling coils and from once-through vacuum pumps at the cogeneration plant for reuse in the cooling towers, resulting in a reduction in the potable water used.



### **LEED Buildings**

SDSU is the host of 9 LEED certified buildings and has a requirement that all newly constructed structures must be at least LEED Silver Certified.

LEED Platinum Certified buildings include:

- Aztec Student Union
- Mission Bay Aquatic Center (MBAC)

LEED Gold Certified buildings include:

- Engineering & Interdisciplinary Sciences
  Complex (EIS)
- Storm and Nasatir Complex
- Children's Center
- Aztec Recreation Center
- Viejas Arena

LEED Silver Certified buildings include:

- Zura Hall
- South Campus Plaza

### Engineering & Interdisciplinary Sciences Complex

Features that earned the EIS Complex its LEED Gold certification include daylight sensors for lighting, water-efficient plumbing fixtures, building materials with low off-gassing emissions, low water-using plants, and energy-efficient components.

The 85,000-sq.ft., \$90 million complex is designed to encourage cooperative thinking. It features mobile furniture to assemble quick meetings; glass walls to spark collaboration and to create a physical feeling of openness; communal whiteboards in the hallways for spur-of-the-moment brainstorming;

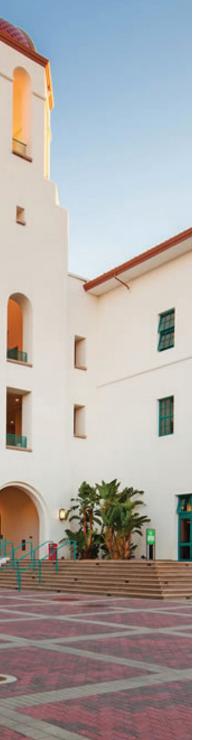
and a coffee shop to refuel.



## SEVEN | Gre



# en Buildings



## **Aztec Student Union**

The Conrad Prebys Aztec Student Union replaced the previous existing Aztec Center, which was the first student union in the California State University system.

The Aztec Student Union was designed as a LEED Platinum-certified project according to the United States Green Building Council. Upon completion, the Conrad Prebys Aztec Student Union was the only LEED Platinum-certified student union in the California State University system. The facility then earned its second LEED certification for Existing Building Operations and Maintenance just two years after opening.

This LEED Double Platinum certification makes the Aztec Student Union one of the most sustainable buildings in the U.S.

Some features that contributed to the LEED certifications are:

- the MTS trolley stop within 100-ft of the student union
- a green, vegetated rooftop
- LED lighting throughout
- a 90 kW solar array
- three 50,000 gallon rainwater collection tanks
- system level metering
- water saving plumbing fixtures
- efficient waste streaming
- variable speed drives on equipment
- radiant flooring
- FSC Certified wood used throughout



## **EIGHT** | Social Responsibility

## Diversity

At San Diego State University, we seek to make research open, accessible, and encourage all our students, including people of color, those with disabilities, firstgeneration students, veterans, those from low-income families, and females. SDSU is proud to be designated as a Hispanicserving institution by the U.S. Department of Education.

To provide an inclusive environment for all of our students, SDSU offers several programs run by brilliant university faculty, researchers, and student-focused coordinators that aim to help underrepresented groups succeed in their careers.

## **Undocumented Resource Area**

This program is open to all undocumented students including those with mixed-status families, faculty/staff, and the community at large.

The Undocumented Resource Area (URA) services was developed to improve persistence and graduation as well as offer a safe space where students can connect with one another and their allies. It provides a centralized space to offer tailored support to students, whose unique challenges may be related to finances and feelings of isolation. The URA provides, academic and career counseling, UndocuAlly training, and referral to reliable off-campus community service providers.

## Social Mobility Index

SDSU is among the top universities in the country in helping low-income students find financial success. This Index measures the extent to which a university educates more economically-disadvantaged students at lower tuition positioning them to graduate and obtain good paying jobs.

## The Sage Project

This Project establishes partnerships with local communities that give students access to projects developed in close collaboration with leaders in the community. Faculty are given connections and resources to incorporate community-based projects into their courses seamlessly, students learn through real-world projects, and partner communities get immediate access to instructors and students that offer innovative solutions to the community's pressing problems.

## **Campus Pride Index**

San Diego State University is among the best universities in the nation for supporting LGBTQ students. The Campus Pride Index recently ranked SDSU on its 2018 "Best of the Best" Top 30 list of LGBTQ-friendly colleges and universities. SDSU has been included in this ranking for the past seven years.

In 2014, SDSU opened the Pride Center, which provides resources and support services to assist students in their process of sexual and gender selfidentity development. The goal of the center is to foster campus-wide dialogue about education, awareness, intellectual exploration, understanding and research on issues related to sexuality and gender.

## **Economic Crisis Response Team**

The Economic Crisis Response Team (ECRT) is a group of staff, administrators, students, and faculty from across campus working together to ensure students that experience food or housing insecurities, or other immediate, unforeseen financial crises are connected with short-term and long-term aid quickly and without stigma.





#### **Associated Students Food Pantry**

42% of CSU students have reported food insecurity, meaning that little or no food is available at their home. Food insecurity within colleges has been a growing problem throughout the country and SDSU is working to fight against it.

The Associated Students (A.S.) Food Pantry provides nutritious food and food program referral services for SDSU students experiencing food insecurity. Any student at SDSU can get as much food as they want from the A.S. Food Pantry every Wednesday and Thursday.



#### **Aztecs Rock Hunger**

Each fall the SDSU community collects non-perishable food items and monetary donations during the Aztecs Rock Hunger program. For every \$1 donated, the food bank can provide 6 pounds of food for hungry San Diegans, including fresh produce.

20% of the monetary donations from Aztecs Rock Hunger go to the Economic Crisis Response Team (ECRT), which assists students who are experiencing food and housing insecurity. Monetary contributions are also applied to the food provided at the A.S. Food Pantry.

Aztecs Rock Hunger is an initiative of Associated Students working in partnership with Aztec Shops, Aztec Proud, Residential Education, Housing Administration, SDSU Athletics, and the College Area Business District.

SDSU collected more than 590,000 pounds of food in the fall of 2018. To date, Aztecs Rock Hunger has raised more than 2 million pounds of food since the first campaign in 2008.

## **NINE** | Academics

## **Degrees Offered**

SDSU offers multiple degrees that encompass sustainability. This includes a Bachelors degree in Sustainability, Environmental Science, Recreational Tourism Management, Geography, Geology, Environmental Engineering, and City Planning.

### Curriculum

Over the past year, Sustainable SDSU has been able to recognize the classes at SDSU that include Sustainability Learning Objectives. Out of over the 1,500 courses offered at SDSU, we have over 150 courses that include Sustainability Learning Objectives.

#### Campus as a Living Laboratory

SDSU has multiple projects that use the campus as a living laboratory. A group of students applied the UN Habitat's "Guiding Principles for City Climate Action Planning" toolkit to the campus climate action plan.

Professor Diana Richardson's geography class studied a grass plot on campus to determine how to increase its utilization and sustainability attributes. They came up with several recommendations which were then implemented into a new student garden on campus.

In 2016, a Sustainable SDSU intern received class credit to assist with the recycling efforts on campus. She developed the signage used on bins, managed RecycleMania, and conducted several bin studies that recommended changes. Hundreds of new bins around campus now use her signage design.

#### Research

While reviewing the curriculum, Sustainable SDSU determined how many faculty members are conducting research that engages in sustainability. Out of the 700 faculty members conducting research, over 100 of the researchers are pursuing research that includes sustainability and 27 of the 60 departments at SDSU were in some way participating in sustainabilityrelated research. Since then, SDSUs Sustainable Faculty Cohort has worked to build connections between these faculty members.

### Immersive Experience

At SDSU, there are various opportunities each semester for students to participate in sustainability-focused study abroad and service learning courses with immersive experiences. Many of these programs are offered by faculty through the College of Extended Studies.

#### **Center for Regional Sustainability**

The Center for Regional Sustainability fosters research; establishes collaborations across campus and with partners from business, government, and education and generates solutions that enhance the natural environment, economic vitality, and social equity in the greater San Diego-Tijuana region.

The Center is responsible for Brightside Produce, which provides produce to food insecure areas. It also supports the Social and Economic Vulnerabilities Initiative, a collaboration between experts examining the issues of homelessness and housing in the San Diego region. The Sage Project is a program within the Center with a simple goal, sustainable learning through community-based projects.

## TEN | Awards & Recognitions

**2018** SDSU earned a STARS (Sustainability Tracking Assessment and Rating System) Silver Rating through AASHE (Association for the Advancement of Sustainability in Higher Education). STARS measures

sustainability across multiple categories including Academics, Engagement, Operations, and Planning and Administration. SDSU now has a STARS guide "Road to Gold" explaining the steps neccessary to improve our score to reach STARS Gold by the next submission.



**2018** Blue Sky Leadership Award - Air Pollution Control District

**2018** EMIES Unwasted Food Award - San Diego Food Systems Alliance

**2018** Sustainability Champion, Glen Brandenburg - California Higher Education Sustainability Conference (CHESC)

2017 Recycler of the Year - City of San Diego

2016 Overall Best Practice Winner - CHESC

2016 EMIES, Aztec Shops - SDFSA

**2015** Monitoring-Based Commissioning Best Practice Award - CHESC



*Campus Energy and Sustainability Officer accepting the 2017 Recycler of the Year award.* 





## Sustainable SDSU

Sustainable SDSU serves as the campus sustainability office and works to reduce our environmental impact by implementing projects and engaging the campus and local community around sustainability.

Sustainable SDSU has continued to grow every year employing multiple students as Sustainability Interns, and will continue to support and prepare students for a career within the sustainable workplace. Current and past interns have achieved a STARS Silver rating for SDSU, hosted sustainability presentations, implemented an EcoReps program to educate students, completed Recyclemania competitions, established a social media campaign for Sustainability tour, deployed a Green Office Certification program, and coordinated energy billings for the campus.

Recently, student interns participated in the "Shut the Sash" program, where labels were applied to all fume hoods encouraging students to shut the hood's sash when not in use to reduce energy. It's estimated that this effort could save the campus up to \$100,000 per year in energy expenses.

Additionally, a presentation series, Sustainable Shorts, was implemented that hosts experts from the university or community who present a lightning style talk on different aspects of sustainability. These talks have been hugely successful in creating dialogue around critical sustainability issues.

#### **Mission Valley Sustainability Charrette**

Sustainable SDSU organized and hosted a sustainable design charrette for the Mission Valley campus expansion to identify goals and determine which goals are favored for twelve subject areas surrounding sustainability. Faculty, staff, and students were asked to develop one goal for each category and strategies for achieving that goal. The exercise was hugely successful and the results are being considered in the design of the expansion.

#### **Student Organizations**

SDSU takes pride in its many different environmental student organizations on campus. Student efforts have led to significant sustainability progress on; the formation of bike lanes, the Aztec Student Union achieving LEED double Platinum, the weekly on-campus farmers market, week-long sustainability celebrations like Earth Week, a public education series on sustainability, and green career fairs. All environmental student organizations at SDSU are open to all majors and students of all ages.

#### RecycleMania

This national, annual tournament among higher education institutions determines which are the best at recycling and reducing their waste. SDSU has engaged students, faculty, and staff in the tournament through various means including, hosting a waste minimization competition among the residence halls, marketing the campus recycling guidelines to students, providing learning opportunities through trash sorting games, and posting reduction tips on social media.

## TWELVE | Get Involved

#### What Now? How do I help make a difference? Where can I learn more?

If you would like to get involved with Sustainability at San Diego State University, there are multiple options to check out!

## For Students:

If you're interested in pursuing sustainability as a career, it is offered as a major and minor on campus. There are several other majors that include curriculum and research related to sustainability referenced on *sustainable.sdsu.edu/academics/curriculum*.

Another great place to learn about sustainability and to become involved are through several of the environmental organizations; EcoReps, Green Love Associated Students, GreenFest, the Enviro-Business Society, the Sage Club, Engineers Without Borders, Voice For Veg, Epsilon Eta, and many others. More information on each can be found at *sustainable.sdsu.edu/get-involved/student-groups.* 

The student led program, EcoReps, was specifically founded in accordance and works closely with Sustainable SDSU. For more information: *http://sustainable.sdsu.edu/get-involved/ecoreps.* 

To learn more about Campus Sustainability, check out Sustainable SDSU's website, newsletter, social media (*@sustainablesdsu*), Green Lunchbag Series presentations, and Sustainable Shorts presentations.

## For Faculty and Staff:

If you'd like to become involved or just learn more about campus sustainability, please join the Sustainable Faculty Cohort to discuss ideas that you have for SDSU.

EcoReps is available to present to one of your classes, or better yet, set-up a sustainability walking tour of campus with them.

Sustainable SDSU is always looking for experts on sustainability topics for the Sustainable Shorts presentation program.

Please feel free to contact us for any of the above inquiries by emailing *sustainable@sdsu.edu*.



## Sustainability 2019 Progress Report

A special thank you to all sustainability advocates at San Diego State University including:

### Sustainable SDSU

Tom Abram Energy & Sustainability Officer

Alexandra Duncan Energy & Sustainability Analyst

McKenna Avery **Outreach Intern** 

Taylor Campbell-Mosley **EcoReps** Intern

Nicholas Poser **Energy Intern** 

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Stuart Stielau Transportation Intern

**Charlotte Roberts** Zero Waste & Recycling Intern

Vecky Hernandez **Environmental Justice Intern** 

Jantzen O'Toole Green Office Certification Intern

**Travis Freeman** AASHE STARS & Sustainability Intern (former)

### **Facilities Services**

All Environmental Organizations Senate Sustainability Committee Sustainability Major & Minor Program **Sustainability Faculty Cohort** 



## Sustainability Starts Here

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