



CAMPUS SUSTAINABILITY COMMITTEE

Friday, Sept. 20, 2019
SSC-122

Members Present: Chastain, Clyde, Daley, DeCarlo, Geiser, Goodsell, Guzzi, Johnson, Kitchell, Matiasek, Millard, Myers, Rodriguez, Ross, Sistrunk, Souders, Teves, Trechter

Members Absent: Connors, Miller

Others Present: Swan, Wahl

MEETING MINUTES

1. Agenda approved.
2. Minutes from 5/3/2019 approved.
3. Recommended EM 19-000 Revisions Update (Chastain)
[Attachment A: EM 00-###_Campus Sustainability Committee Update (2)]
 - Function of the Campus Sustainability Committee was reviewed and 11 subcommittees listed. All committee members were urged to sit on a subcommittee. Subcommittees will develop work plans with goals and dates. An annual report will be published by the committee each May.
 - Suggestion was made to change language to include participation by “students, faculty, staff and community.” (Trechter) Motion was made (Sistrunk) seconded and approved.
 - Discussion about vagueness of who the committee reports to. It was suggested that campus sustainability policy dictates those.
 - Motion was made to add verbiage “publish an annual progress report and present to Academic Senate annually.” (Sistrunk) Motion was seconded and approved.
4. Subcommittee updates on summer progress:
 - Curriculum Committee (Daley)
[Attachment B: Curriculum Committee Meeting Notes June 2019_Daley]
Discussion on resurrecting the green leaf designation for CSU, Chico courses.
 - Zero Waste Committee (Rodriguez)
Reported that they are starting to characterize and audit waste which is their first step.

- Procurement Committee (Johnson)
Met with PROC for campus-wide involvement. Looking for ways to reduce swag across campus or find more sustainable options. Recommended to reference UC Davis web page for ideas.
<https://uecomm.ucdavis.edu/sustainable-swag>

5. Sustainability 101 Orientation (Chastain) [**Attachment C: CSC_Fall2019 Orientation**]

- Common definitions and organizations
- CSU Sustainability Policy
- Climate Commitment: Carbon + Resilience
- AASHE STARS
- 2011 Climate Action Plan – Initial Recommendations
- Chico State MTCO2e 1990-2018
- FY2017-2018 Largest Sources of Emissions
- Climate Action Plan 2.0
- Climate Neutrality
- Chico Climate Change Vulnerabilities
- SMART Goals = Specific, Measurable, Achievable, Relevant, Time-bound

6. Proposed Campus Sustainability Committee Work Plan:

- September 2019 Sustainability 101: Campus Goals
- October 2019 Sustainability 201: Deep Dive
- November 2019 Utilities KPIs (Energy, Water, Waste)
- December 2019 Campus Communication – CSC Progress
- February 2020 Second Nature Reporting
- March 2020 TBD
- April 2020 Utilities KPIs (Energy, Water, Waste)
- May 2020 Publish annual progress report
- May 2020 Campus Communication – CSC Progress

7. Subcommittee Chairs were determined:

- 1) Curriculum - Tim Sistrunk
- 2) Research – Sandrine Matiasek (Kristen included)
- 3) Student Engagement – Kendall Ross
- 4) Transportation – Cheri Chastain
- 5) Zero Waste – Ryan Rodrigues
- 6) Procurement – Barbara Johnson
- 7) Natural Environment – Eli Goodsell
- 8) Water – Nani Teves (plus Mike Alonzo)
- 9) Agriculture – Cindy Daley
- 10) Energy – Mike Guzzi
- 11) Built Environment – DeCarlo

8. Proposed Subcommittee Work Plan [**Attachment D: DRAFT_Transportation Work Plan.doc**]

Subcommittees were encouraged to come up with at least 2 manageable SMART goals for semester or year using Transportation Work Plan template. Subcommittee membership should be identified by October meeting.

- Oct 2019 Identify subcommittee membership
- Nov 2019 Inventory existing efforts

- Dec 2019 Develop 2-4 goals
 - 12-18 month timeline w/milestones
 - Impact on campus goals
 - Resources needed
- Feb-Mar 2020 Progress report on goal milestones
- Apr 2020 Final progress report on AY goals to CSC for publication in May 2020

9. Adjourn.

**Office of the President
California State University, Chico**



Executive Memorandum 19-000

January 1, 2000

From: Gayle E. Hutchinson, President _____

Subject: Campus Sustainability Committee

Upon the recommendation of the Academic Senate and the concurrence of the Provost, I approve the Campus Sustainability Committee, effective immediately.

Policy Title:	EM 00-000 Campus Sustainability Committee
Contact:	office responsible for administering the policy
Supersedes:	EM 11-017 and EM 00-065
Revision:	enter date(s) of revision(s), if any
Enabling Legislation or Executive Order:	citation(s), if applicable

Campus Sustainability Committee

SCOPE

As a 2007 founding signatory of the American College and University Presidents Climate Commitment, Chico State has long been dedicated to promoting a sustainable campus culture and creating interdisciplinary approaches to learning. University and student leadership has charted a path toward a sustainable campus by embracing ambitious goals: adhere to the CSU Sustainability Policy, achieve climate neutrality by 2030; 80% waste reduction by 2020; remain responsive to additional sustainability needs, and accelerate research and educational efforts to equip students, faculty, staff, and community members for a sustainable and resilient future.

These commitments necessitate the establishment of an institutional structure to provide leadership, support, and resources to the development and implementation of programs to realize these goals. The Campus Sustainability Committee (CSC) will serve to fully integrate sustainability practices and principles across all facets of our campus.

POLICY

The role of the CSC is to facilitate the achievement of CSU, Chico's sustainability goals. It is important that the composition of the CSC reflects the ability of the committee to facilitate

DRAFT FOR CONSIDERATION – NOT APPROVED FOR IMPLEMENTATION

accountability for attaining these goals. The CSC will provide leadership in identifying mechanisms, resources and structure to integrate sustainability concepts into all core functions of the university. The CSC will provide support and leadership for implementing sustainability across the campus via subcommittees covering these eleven focus areas:

1. Curriculum
2. Research
3. Student Engagement
4. Transportation
5. Zero Waste
6. Procurement
7. Natural Environment
8. Water
9. Agriculture
10. Energy
11. Built Environment

RESPONSIBILITIES

Membership

The CSC will be composed of 19 members as identified below.

Two Co-Chairs:

1. Vice President of Academic Affairs (or designee)
2. Vice President of Business and Finance (or designee)

Voting Ex Officio Members:

3. Associate VP Facilities and Capital Projects (or designee)
4. Executive Director of the Associated Students (or designee)
5. Housing Facilities Director (or designee)
6. Campus Sustainability Manager (or designee)
7. Associated Students Sustainability Coordinator (or designee)
8. Associated Students Sustainability Affairs Commissioner (or designee)
9. Associated Students Recycling Coordinator (or designee)
10. General Education Sustainability Pathway Coordinator (or designee)
11. Rawlins Endowed Professor (or designee)

Voting Appointments:

12. Representative appointed by the President
13. Representative appointed by the Vice President of Academic Affairs
14. Representative appointed by the Vice President of University Advancement
15. Representative appointed by the Vice President of Student Affairs
16. Staff member appointed by Staff Council
17. Staff member appointed by Information Resources
18. Student appointed by the AS Sustainability Coordinator
19. Student appointed by Campus Sustainability Manager
20. Faculty member appointed by Academic Senate

All designees must be approved by the co-chairs of the CSC. All appointed faculty and staff members of the CSC will serve two-year appointments with the option for renewal; student representatives will serve one-year appointments.

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Organization

The CSC will meet monthly during the academic semester with a minimum of eight meetings during the calendar year. The CSC will provide guidance and leadership to subcommittees based on the above outlined focus areas. Each member of the CSC is expected to either chair or actively participate in a subcommittee.

Once a subcommittee chair is identified, that chair is responsible for identifying the stakeholders needed to achieve the goals of the subcommittee. It is recommended that each subcommittee include relevant faculty, staff, students, and community members/organizations.

CSC Expectations

1. Provide leadership, eliminate barriers and recommend allocation of resources to achieve Chico State sustainability goals
2. Actively encourage and advise the campus community on meeting our sustainability goals
3. Assist in directing subcommittee goal development, tracking, and reporting
4. Publicly publish an annual progress report and present to Academic Senate

CSC Subcommittee Expectations

1. Identify annual priorities and goals
2. Present plans to the CSC that includes work plan, members, timeline, resources needed, and impact
3. Implement plan
4. Provide progress reports to CSC

Campus Sustainability Manager Expectations

1. Provide technical, advisory, and administrative assistance to CSC and subcommittees
2. Publicly report CSC progress
3. Report to entities whom campus leadership has made commitments to

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PROCEDURES [Optional]

Describe fundamental principles and/or guidelines for implementation. Avoid overly specific procedures that might change during the life of the policy.

REFERENCES [Optional]

Related policies and resources.

APPENDICES [Optional]

Appendices may provide useful information regarding the policy, including information that may change, since an appendix may be modified at some later date without reconsidering the entire policy. Things such as charts, FAQs, a glossary, or web links may be useful components, depending on the subject matter of the policy.

Topic: Sustainability education/curriculum across campus

Notes – Meeting June 18th 10:00 am

Attendance: Rachel Koontz; Cheri Chastain; Eli Goodsell; Nate Millard; Tim Sistrunk; Cindy Daley

Tim revisited the history of these efforts on campus

Discussed the Interdisciplinary Sustainability & Resilience Major – Curriculum Design draft – one major with multidisciplinary options

- Established to address the 12 Learning Outcomes in Sustainability
- Meant to be a dual degree, i.e., Business Administration + Interdisciplinary Sustainability & Resilience Major
- Sustainability pathway was approved – as a minor in G.E.

Goals: All students on campus need some fundamental understanding of sustainability principles.

- Do we infuse sustainability curriculum throughout all degrees, or do we support a multidisciplinary sustainability major? Minors? Certificates?
- General thought is to make all students responsible on a fundamental level; then make a minor or dual degree option available for those students looking for a deeper dive.

Address the low hanging fruit: Resurrect the Green Leaf system to designate courses as meeting requirements for a sustainability designation. Establish a rubric to assess Green Leaf eligibility. Create an application process. Create standards. All courses need to reapply. Submit syllabi and answer key questions in the Green Leaf application.

- **Applications will be reviewed by the Sustainability Education Subcommittee of the Campus Sustainability Committee.**
- **Create a “Sustainability Learning Community” to help faculty redesign curriculum to fit Green Leaf standards (GLS).**
- **Hold workshops on how to adapt existing course to GLS.**
- **Create stipends for course redesign**

Require that every student take one course designated with a Green Leaf – similar to GC and UD. Minimum requirement to address Sustainability SLO's and Strategic Priority #6.

Develop minor in Sustainability – made up of 5 courses (students choice) designated with Green Leaf plus a capstone/civic engagement project – or a final essay in how sustainability affects (integrates with in) the student's chosen major.

- Establish a set of cords for graduation

Campus Sustainability Committee Orientation

SEPTEMBER 20, 2019

Common Definitions and Organizations

Greenhouse gas (GHG) emissions

- Scope 1 – what campus owns/controls/operates
 - Natural gas boilers, vehicle fleet, back up generators
- Scope 2 – emissions associated with the generation of the electricity we purchase
- Scope 3 – not owned by campus, but contribute to operations
 - Students, faculty, staff commuting to/from campus, university supported travel, waste to landfill

Second Nature

- Formally American College and University President's Climate Commitment (ACUPCC)

Association for the Advancement of Sustainability in Higher Education (AASHE)

- Administers Sustainability Tracking, Assessment and Rating System – **STARS**

Zero Waste

- At least 90% solid waste diverted from landfill
- More than simply what ends up in the trash – Redesign, Rethink, Reduce, Reuse, then Recycle

CSU Sustainability Policy

University Sustainability

- Integrate sustainability into the academic curriculum
- Develop green workforce skills, promote development of sustainable products and services, and foster economic development
- Pursue sustainable practices in all areas of the university
- Designate a sustainability officer

Climate Action Plan

- Reduce systemwide facility GHG emissions to 1990 levels by 2020 and 80% below 1990 levels by 2040

Energy Conservation and Utility Management

- All buildings and facilities will be operated in the most energy efficient manner
- Continue to identify energy efficiency improvement measures, seek funding and expeditiously implement the measures
- Cooperate with federal, state, and local governments on energy conservation and utilities management objectives; inform students, faculty, staff and general public of need and methods of energy conservation and utilities management
- Designate an energy/utilities manager
- Monitor monthly energy and utility usage on all campuses and the Chancellor's Office
- Develop and maintain a campus-wide integrated strategic energy resource plan

CSU Sustainability Policy (cont.)

Energy Independence and Procurement

- Pursue energy procurement and production to reduce energy capacity requirements from fossil fuels
- Exceed the State Renewable Portfolio Standard (RPS)

Water Conservation

- Reduce water consumption 10% by 2016, and 20% by 2020

Waste Management

- Reduce solid waste disposal 50% by 2016, 80% by 2020, and move to zero waste.
- Encourage the reduction of hazardous waste

Sustainable Procurement

- Promote use of suppliers and/or vendors who reduce waste, re-purpose recycled material, or support other environmentally friendly practices
- Encourage use of products that minimize the volume of trash sent to landfill or incinerators; participate in CalRecycle Buy-Recycled program or equivalent; and increase recycled content purchases in all BuyRecycled program product categories
- Continue to report on all recycled content product categories and implement improved tracking and reporting procedures for recycled content purchases

CSU Sustainability Policy (cont.)

Sustainable Food Service

- Track sustainable food purchases using Real Food Challenge or equivalent and increase sustainable food purchases to 20% of total food budget by 2020
- Provide information and/or training on sustainable food service operations to staff and patrons

Sustainable Building Practices

- All future new construction, remodeling, renovation, and repair projects will be designed with consideration of optimum energy utilization, low life cycle operating costs, compliance with all applicable energy codes
- Monitor building sustainability/energy performance and maintain information on design best practices
- Design and build all new buildings and major renovations to meet or exceed LEED Silver

Physical Plant Management

- Operate and maintain a comprehensive energy management system
- Academic and non-academic programs will be consolidated in a manner to achieve the highest building utilization
- Implement a utilities chargeback system to recover direct and indirect costs of utilities provided to self-supporting and external organizations

Climate Commitment: Carbon + Resilience



Develop a comprehensive Climate Action Plan (CAP)

- Create internal institutional structures to guide the development and implementation of the plan
- Actively support a joint campus-community task force (or equivalent) and complete a greenhouse gas emissions inventory
- Complete an initial campus-community resilience and vulnerability assessment
- CAP to include:
 - target date for achieving carbon neutrality and defined thresholds of resilience
 - mechanisms and indicators for tracking progress
 - actions to make carbon neutrality and resilience a part of the curriculum and other educational experiences
 - actions to expand research in carbon neutrality and resilience
- Review, revise if necessary, and resubmit the climate action plan not less frequently than every five years

Submit an annual evaluation of progress

Make the action plan, annual evaluation of progress publicly available in Second Nature reporting platform

AASHE STARS



Academics

- Curriculum + Research

Engagement

- Campus Engagement + Public Engagement

Operations

- Air and Climate + Buildings + Energy + Food and Dining + Grounds + Purchasing + Transportation + Waste + Water

Planning and Administration

- Coordination and Planning + Diversity and Affordability + Investment and Finance + Wellbeing and Work

Innovation and Leadership

2011 Climate Action Plan

CALIFORNIA STATE UNIVERSITY, CHICO CLIMATE ACTION PLAN



May 23, 2011

Today Decides Tomorrow

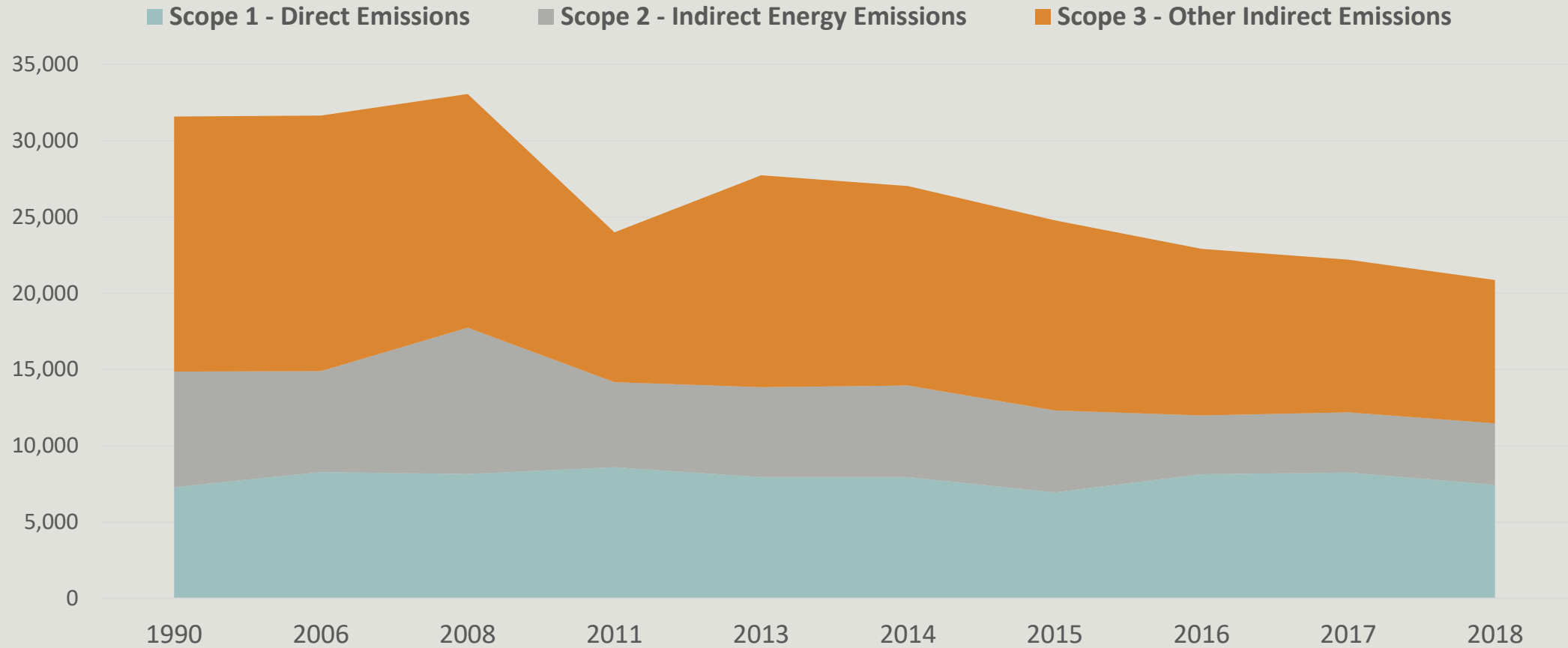


California State University, Chico is committed to achieving climate neutrality by the year 2030, with an interim target of reaching 1990 emissions levels by the year 2020. The actions taken to reach the interim target will all be local actions.

INITIAL RECOMMENDATIONS

- Select a more climate-neutral grid mix
- Retrofit lighting systems in 15 campus buildings
- Upgrade HVAC, boiler-chiller, and air handler efficiencies
- Retrofit domestic H2O booster pump in housing
- Install PowerSave power management software
- Reduce single-occupancy vehicles
- University-sponsored travel education

Chico State MTCO2e



1990 = 32,406 MT CO2e | 2018 = 20,866 MT CO2e

FY2017-2018 Largest Sources of Emissions

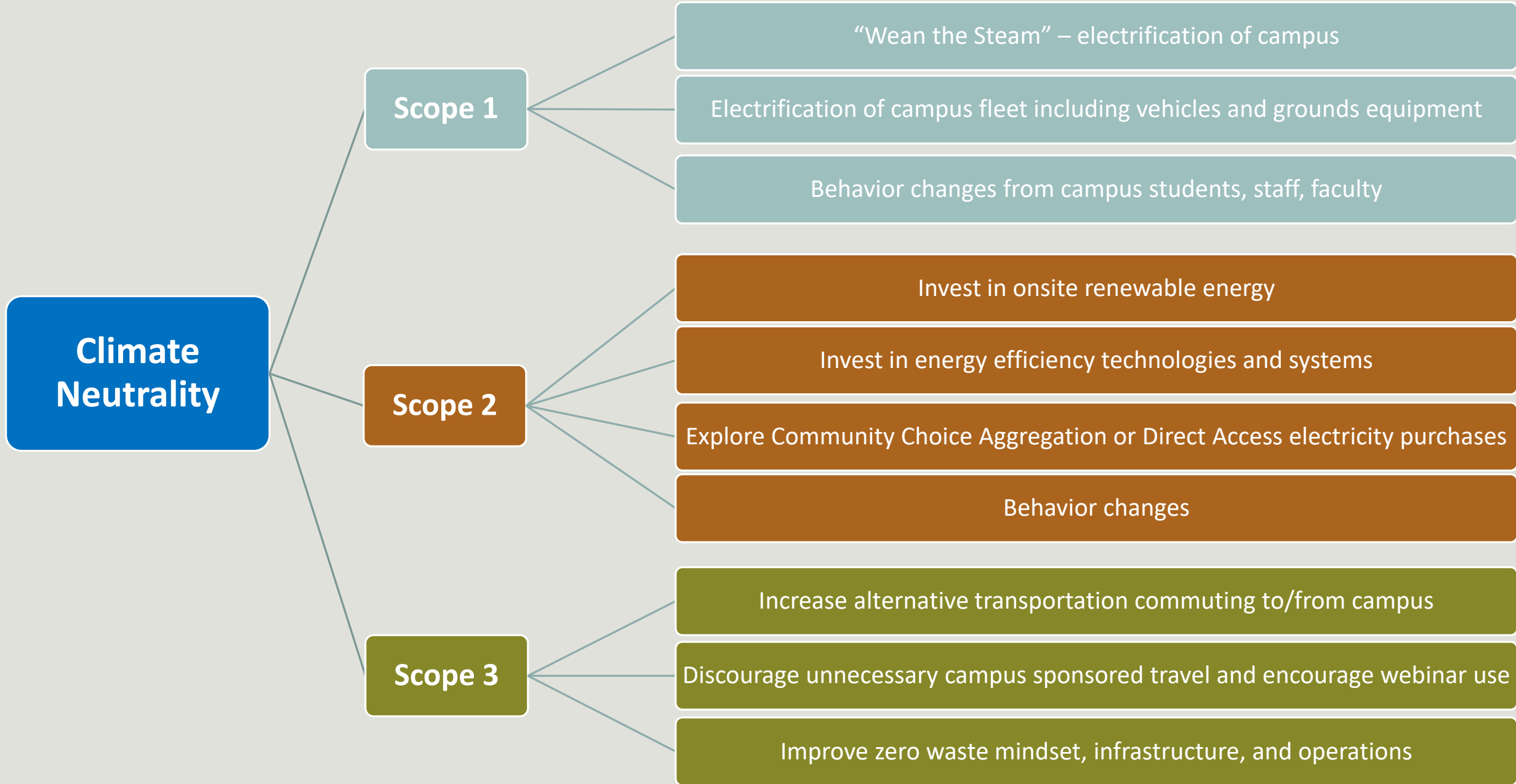
1. Commuting – 40%
 2. Stationary combustion
(natural gas) – 28%
 3. Electricity use – 20%
- = 88% of our emissions



Institution	California State University - Chico				
Reporting Year	2018	Fiscal Year July 1, 2017-June 2018			
	Quantity	Units	Emission Factor (kg CO2e / Unit)	MTCO2e	% Total Emission
Scope 1 - Direct Emissions				7,440	36.3%
Stationary Combustion				5,733	28.0%
Natural Gas	107,751	MMBtu	53.11	5,723	27.9%
Diesel for Backup Generators	1,000	Gallons	10.2130	10	0.0%
Mobile Combustion				502	2.5%
Gasoline Fleet	31,278	Gallons	8.811	276	1.3%
Diesel Fleet	22,197	Gallons	10.21	227	1.1%
Agricultural Emissions				1,189	5.8%
Fertilizer, Synthetic, 20% N	289,815	lbs	7.93	460	2.2%
Fertilizer, Organic, 2% N	309,000	lbs	3.85	238	1.2%
Cows - Dairy	149	head	1,679.16	250	1.2%
Cows - Beef	169	head	1,238.44	209	1.0%
Swine	123	head	42.00	5	0.0%
Goats	67	head	148.91	10.0	0.0%
Sheep	67	head	253.64	17.0	0.1%
Refrigerants				16	0.1%
Other Scope 1				0	0.0%
Scope 2 - Indirect Energy Emissions				4,025	19.6%
Purchased Electricity	30,506	MWh	131.934	4,025	19.6%
Scope 3 - Other Indirect Emissions				9,030	44.1%
Commuting				8,239	40.2%
Faculty / Staff Commuting - Auto	2,943,973	Miles	0.3464	1,020	5.0%
Faculty / Staff Commuting - Bus	55,153	Miles	0.0563	3.1	0.0%
Student Commuting - Auto	20,652,374	Miles	0.3464	7,155	34.9%
Student Commuting - Bus	1,089,622	Miles	0.0563	61.3	0.3%
Air Travel				308	1.5%
Approximated Air Travel				0	0.0%
Calculated Air Travel	2,245,740	Miles	0.1372	308	1.5%
Additional Sponsored Travel				371	1.8%
Train	1,038	Miles	0.1124	0.12	0.0%
Bus	12,040	Miles	0.0563	0.68	0.0%
Auto	1,068,722	Miles	0.3464	370	1.8%
Other/Uncategorized					0.0%
Solid Waste	1,499	Short Tons	310	465	2.3%
Wastewater	42,321,242	Gallons	0.0004	18	0.1%
Electricity T&D Losses		MWh		0	0.0%
Gross Emissions				20,495	100.0%

Climate Action Plan 2.0

- Will be a guiding document to set high level path for climate neutrality by 2030
- Building in plans for resilience in the face of a changing climate
- Specific goals, targets, and actions will be needed from every entity on campus
 - Energy Master Plan
 - FMS 5 year goals
 - Each Campus Sustainability Subcommittee should have specific goals and actions to contribute
 - Procurement policies will be critical



Chico Climate Change Vulnerabilities

Increased Average Temperature

Increased frequency, intensity, & duration of heat days/waves

Increased flooding

Utilities (energy, water, wastewater) & housing

Food systems & security

Changes in Annual Precipitation

Increased wildfire

Decreased snowpack & water supplies

Vulnerable populations & public health

Transportation & safe streets

As you build
your
subcommittee
work plan...

- Keep in mind the overall campus and system-wide goals
- Make your subcommittee goals as SMART as possible





CAMPUS SUSTAINABILITY COMMITTEE Transportation Subcommittee Work Plan

COMMITTEE MEMBERS

Cheri Chastain (Chair – Campus Sustainability Manager) Thomas McNairn (Student, Green Campus)
 LaDona Knigge (Chair, Geography and Planning) Megan Berg (Students, Green Campus)
 Jeff Schwein (GreenDot), Ivan Garcia (BCAG)
 Bikram Kahlon (City of Chico) Other members TBD

GOALS

The overall goal of this subcommittee is to increase student, faculty and staff use of and access to alternative transportation. Alternative transportation is considered to be anything other than single-occupancy vehicles: carpooling, bikes, skateboards, public transit, or walking.

Specific goals for the subcommittee include:

GOAL	MEASUREMENT	RESOURCES NEEDED	TIMELINE
Assess the design and flow of the pilot east-west bike path on campus for needed improvements before making the path permanent.	Bicycle and pedestrian perceived and actual safety + appropriate use of path markings	Funding for labor, green paint, and any needed road repairs.	Fall 2019 with the path being permanent Spring 2020
To alleviate bike theft and vandalism concerns, the subcommittee will research secure bike parking options for campus and implement at least one solution by July 2020.	Adding more than the existing 12 secure bike parking locations	Funding and labor to source and install secure bike parking options.	Research Fall 2019 Implement summer 2019
According to the spring 2019 transportation survey, 27% of respondents were unaware that Wildcat IDs are free bus passes. Through an awareness and education campaign, this subcommittee will work to reduce that number to less than 15%.	Campus awareness of bus subsidy program from via transportation survey results	Minimal funding for educational resources (posters, etc.)	Next transportation survey to go out in April 2020.
Explore feasibility and options for a university sponsored travel mitigation fund to offset associated emissions		Administrative support	Present feasibility in May 2019

IMPACT

Students, staff, and faculty commuting to and from our campus is the single largest source of greenhouse gas emissions for our campus. Reducing single-occupancy vehicle travel to/from our campus will be critical if we are to meet our climate neutrality commitment. Every mile traveled with alternative modes of transit reduced emissions by .3463 kg CO₂e