



**PRESIDENT'S
SUSTAINABILITY COMMISSION
COLORADO STATE UNIVERSITY**

SUSTAINABILITY STRATEGIC PLAN

We are often asked what Colorado State plans to do next after achieving the first-ever Platinum STARS (Sustainability Tracking, Assessment, and Rating System) score. Our answer is always “MORE” as we work toward our Climate Action Plan commitment of 100% renewable electricity by 2030 and a 100% reduction in net carbon emissions by 2050. The purpose of this Sustainability Strategic Plan is to outline specific goals and objectives to help us achieve the operational goals in our Climate Action Plan and, to address the social justice and economic aspects of sustainability that are so critical to a holistic approach that considers and engages our entire campus community. Each goal outlined here correlates to one or more of the eleven goals in the University’s Strategic Plan to ensure that our sustainability efforts are aligned with the University’s goals. This is a living, breathing document that will be updated as we make progress and identify new strategies.

The President’s Sustainability Commission has established these goals for our entire campus community to work towards together and we ask you to join us in our mission to promote and facilitate the effective integration of sustainability across all aspects of the University.

ADMINISTRATION AND PLANNING

Goal #1: Transparent Financial Reporting

Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
1.1	Create a financial transparency report for money managed by CSU (similar to what State Treasury provides publicly)	CFO/Lynn Johnson	Fall 2019	Publicly available report on CSU website.
<i>This goal aligns with Goal #9 (financial resources) of the University Strategic Goals</i>				

Goal #2: Increase positive sustainable investments

Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
2.1	Identify standardized definition of positive sustainable investment and establish some goals/milestones for increasing positive sustainable investment.	Margaret Henry/CSU Foundation	FY20	Definition and metrics approval by Foundation Board.
2.2	Explore ways to invest in proprietary CSU sustainability research, technology, and business.	CSU Foundation & CSU Ventures	FY20	Submit list of recommendations to Foundation Board.
<i>This goal aligns with Goal #4 (increase in industry sponsorship) of the University Strategic Goals</i>				

Goal #3: Create funding mechanisms to grow sustainable infrastructure and initiatives

Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
3.1	Expand Energy Reserve Fund.	Stacey Baumgarn/Carol Dollard	Ongoing	Approval of additional funds.
3.2	Support student efforts to establish sustainability-related student fees.	PSC	Ongoing	Approval of student fees
3.3	Collaborate with Advancement to engage donors on sustainability initiatives and projects	PSC/Advancement	Ongoing	Track donor engagement for sustainability initiatives
<i>This goal aligns with Goal #10 (physical resources) and Goal #9 (financial resources) of the University Strategic Goals</i>				

Goal #4: Support and Advocate for Living Wage and Affordable Housing Initiatives

Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
4.1	Continue progress towards a Living wage for all CSU staff (including part-time and student staff) in partnership with Classified Personnel Council, Administrative Professional Council, Faculty Council, and Human Resources.	Cabinet & EO/HR	Long-term	Living wage for all CSU staff.
4.2	Support campus efforts to develop affordable housing initiatives for employees	PSC	Long-term	Forward progress on affordable housing for CSU employees
<i>This goal aligns with Goal #1 (access) and Goal #7 (excellence in staffing) of the University Strategic Goals</i>				

Goal #5: Support and advocate for Land Acknowledgement Initiatives on Campus

Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
5.1	Add land acknowledgement language to PSC webpage/green.colostate.edu	Tonie	Summer 2019	Successful addition of language on website
5.2	Collaborate with Native American Cultural Center and campus partners to incorporate more indigenous stories, contributions, and programs into sustainability initiatives (i.e. Earth Week, sustainability timelines, fact sheets, etc.).	Tonie	FY20	Examples of indigenous stories, contributions, and programs highlighted in sustainability initiatives.
<i>This goal aligns with Goal #8 (Diversity, Equity, Campus Climate) in the University Strategic Plan</i>				

Completed Goals:

- Incorporated sustainability into the University Strategic Plan and created topic-focused subcommittees within PSC (academics, research, engagement, facilities, and administration) to drive ongoing progress.
- Created a Sustainability Strategic Plan that directly supports goals within the University Strategic Plan.
- Completed a snapshot of current progress towards living wage for faculty and staff (using STARS criteria from MIT Living Wage Calculator for Larimer County).
- Supported \$30k base salary for all CSU full-time staff members (implemented in fall 2018).
- Established and documented on a public website the charge and membership of the CSU committee for investor responsibility.
- Established a base budget for the President's Sustainability Commission.

ACADEMICS

Goal #1: Infuse sustainability (definition to include environmental, social justice, and economics) core knowledge and thinking throughout CSU's curriculum

Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
1.1	Subcommittee formulates a strategy for infusing sustainability core knowledge into curriculum.	Teaching Subcommittee, TILT, SoGES Curriculum Committee, Academic Associate Deans	2019/2020	Number of Department level Sustainability learning outcomes increased.
1.2	Subcommittee works with Deans and Provosts office to secure funding for implementation of infusion of sustainability core knowledge into curriculum.	Teaching Subcommittee, SoGES Curriculum Committee, Academic Associate Deans	Spring 2020	Funding targeting implementation secured.
<i>This goal aligns with goal #2 (high quality academic and co-curricular programs) of the University Strategic Goals</i>				

Completed Goals:

- Created a subcommittee of sustainability curriculum and teaching experts.
- Met with Provost, Academic Associate Deans, and SoGES Curriculum Committee to discuss sustainability infusion across the curriculum.
- Collected and shared best practice examples of university-wide sustainability learning outcomes with the Provost's Office.
- Sustainability included in the draft University Learning Outcomes document that was prepared by a Task force of the Committee on Teaching and Learning (CoTL)

RESEARCH

Goal #1: Implement Recommendations Identified in Research Subcommittee Report

	Strategy	Appropriate entity to implement?	When should this be accomplished?	What measure(s) will tell us if we are successful?
1.1	Monitor implementation of recommendations that are described in the appendix	Subset of the Research Subcommittee	Summer 2020	One or recommendations implemented
1.2	Establish a sustainability research award	Research Subcommittee, VPR office	Spring 2020	Award given out

Completed Goals:

- Convened a research subcommittee.
- Identified barriers and recommendations for improvement and documented them (see appendix).
- Presented findings to CSU administration and PSC.

ENGAGEMENT

Goal #1: Improve and assess employee engagement in CSU sustainability efforts

Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
1.1	Recommend/develop opportunities for CSU employees to learn about or be actively engaged with sustainability efforts and initiatives through trainings, peer-to-peer education, department/unit level sustainability committees, PDI sessions, campus events, providing "Sustainability 101 at CSU" through TOD, etc.	TILT, Facilities Management, PTS, TOD, Procurement Services, any dept. delivering employee trainings that incorporate sustainability. PSC Members: Stacey Baumgarn, Julie Kallenberger	Fall 2019/Ongoing	Documented participation in trainings, committees, etc.
1.2	Collect/track data on employees who participate in the "Assessing Sustainability Culture Survey" (a campus-wide faculty and staff focused survey that collects data on sustainability literacy).	Administered by CSU Housing & Dining. Reviewed by PSC Engagement Committee	Fall 2019/Ongoing	Survey developed and distributed to a representative sample of CSU Employees
1.3	Develop a "Sustainability at CSU Handbook" for employees and students (and update as needed).	Olivia Bruce, Andrew Warnock (Sr. Thesis Advisor) and Stacey Baumgarn, Julie Kallenberger	Fall 2019	Online/hard copy listing contacts, waste sorting techniques, FAQ's, etc.
<i>This goal aligns with goal #7 (excellence in staffing: hiring, professional development, employee engagement) of the University Strategic Goals.</i>				

Goal #2: Improve and assess student engagement in CSU sustainability efforts				
Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
2.1	Collect/track data on students who participate in the "Assessing Sustainability Culture Survey" (a campus wide student focused survey that collects data on sustainability literacy).	Administered by ASCSU DEA, PSC Members: Kirstie Tedrick	Annually	Successful administration of survey to representative sample of CSU students
2.2	Incorporate sustainability throughout Ram Welcome.	Zero Waste Team, ASCSU DEA, and Keith Lopez with Orientation & Transition Programs. PSC Members: Kirstie Tedrick	Annually	Waste diversion results; Mindful tabling.
2.3	Develop a database or reporting process to document and track student volunteer hours. Percent of students who volunteer and total volunteer hours. Create volunteering "job board" on RamLink. Department engagement and training needed to encourage use of database.	SLiCE	Ongoing	Published FY16 report in STARS 2.1. Documented stakeholder buy-in and participation in data collection. Assess the % of diverse students, to the best of our ability, within the volunteer hours until 100% annual participation rate is achieved.
2.4	Establish a community service/volunteer graduation requirement for undergraduate students (documented on transcript). Develop recommendation for PSC to present to CSU Administration.	ASCSU DEA, Registrar's Office, CSU Administration. PSC Members: Kirstie Tedrick, Andrew Warnock	Long Term/ Aspirational	Documented campus commitment; transcript with service learning and volunteer hours documented.
2.5	Incorporate land acknowledgement question into student sustainability culture survey.	ASCSU DEA. PSC Members: Kirstie Tedrick	2019	Documented inclusion of this question in the next survey.

<i>This goal aligns with goal #2 (high quality academic and co-curricular programs) and goal #5 (engagement) of the University Strategic Goals.</i>				
Goal #3: Further integrate sustainable best practices into CSU events, materials, trademark licensing, and partnerships				
Strategy		Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
3.1	Develop best practice guidelines for sustainable university outreach, events, materials, and publications. Create pre/post-event questionnaires to prompt best practices and gauge successful implementation.	ASCSU DEA, PSC Members: Kirstie Tedrick, Stacey Baumgarn	FY20/Ongoing	Documentation of adopted best practices. Reduced paper purchasing, FSC certified paper utilization, zero-waste events, etc.; Guidance that is easily found on CSU websites.
3.2	Develop recommendation for PSC to present to CSU Administration to strengthen the integration of requirements for Fair Labor Association, Workers Rights Consortium, and/or Fair Trade criteria into university apparel procurement (where absent). Coordinate with PSC Operations sub-committee, Goal #2 and ESRP guidance	Athletics, Book Store, Procurement Office, student organizations	Ongoing	Updated contract language to include procurement best practices
3.3	Write articles about CSU sustainability efforts for CSU Source and green.colostate.edu to highlight success stories.	External Relations (Source). PSC Members: Mary Guiden, Stacey Baumgarn	Ongoing	Number of articles published
<i>This goal aligns with goal #8 (inclusive excellence – diversity, equity, and climate) of the University Strategic Goals.</i>				

Completed Goals:

- Completed a student volunteer hours report for STARS 2.1.
- Created and sent a student-focused campus sustainability survey that demonstrates national best practices in assessing campus sustainability culture (as a separate survey from the Sustainability Literacy Assessment).
- Determined the % of Under Armor apparel with the university logo that meets Fair Labor Association, Workers Rights Consortium, or Fair Trade certification.
- Created and began delivery of a monthly “Sustainability 101 at CSU” training and information session – since January 2019.
- Published an FY16 report of student community service and volunteering participation in STARS 2.1 report.
- Successful bi-annual distribution of student sustainability culture survey
- Initial success with engagement and integration of sustainability practices to “green” Ram Welcome in 2018.
- Created three “greening guidelines” posted at <https://green.colostate.edu/greening-guidelines/>

OPERATIONS

Goal #1: Support Energy & Water Efficiency Measures in Buildings/Infrastructure				
<i>Energy use is by far the largest contributor to the university's GHG emissions and utility costs for energy & water are some of the largest operational expenses.</i>				
	Strategy	Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
1.1	<p>High Performance and Inclusive Building Standards and Design:</p> <ul style="list-style-type: none"> Support continuing efforts to 3rd party certify all new construction and major renovations (LEED, Green Globes, etc.) with a focus on energy performance and overall IAQ Provide add'l support to implement energy & water efficiency and IAQ strategies in existing buildings. Pursue certification of existing buildings to benchmark energy, water and IAQ performance. Support standards developed by the Inclusive Physical and Virtual Campus committee Support green labs initiatives Support green building standards (in development) Develop communications strategy to support strategy (see 1.3) 	Carol/Stacey/Brian	Ongoing	<p>Number of 3rd party certified buildings. Track EUI (kBtu/SF) and monitor trend.</p> <p>University Policy requiring LEED/Other certification requirements for new and existing buildings</p>
1.2	Support conservation/behavioral engagement. Establish a fund for "mini-grants" and/or crowdfunding to incentivize behaviors and support sustainability projects on campus.	Stacey	Ongoing	Tracking of conservation and behavioral engagement campaigns.
1.3	Develop communications strategy for a broad range of sustainability efforts. Invest and encourage a sustainability culture within CSU colleges and units. Develop a road show to share the story. Include specifics like High Performance Buildings, Air Travel, ESRP, CSU Moves Online Transportation Module, etc. Supports similar goal in Engagement section.	Carol/Stacey	Ongoing	Number of people engaged
<i>This goal aligns with Goal #10 (physical resources) of the University Strategic Goals</i>				

Goal #2. Resource Utilization

While recycling and zero waste are very important goals, it is imperative to go after reducing waste and choosing better options through purchasing and operations policies.

	Strategy	Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
2.1	Reduce the amount of “stuff” purchased by the university through: <ul style="list-style-type: none"> • Support sharing equipment and vehicles to optimize utilization • Develop an Advanced Recovery Charge for Ewaste and stop charging to dispose of Ewaste already on campus in order to free up space in buildings 	Jake/Aaron/Carol/ Stacey	Ongoing	Increased utilization of Assets (Capital Assets)
2.2	Support expansion of compost program. Including expansion of the site, additional on campus collection and more education/outreach of compost program.	Sheela	Ongoing	Percent diverted from landfill
2.3	Develop, adopt, and implement campus-wide green cleaning practices and seek certification	Carol/Stacey/Mary/ Jeff Sutton	FY20	100% implementation of Green Cleaning in all CSU buildings. Certification for all custodial staff on campus.
2.4	Bolster the Environmentally & Socially Responsible Procurement Policy (ESRP). Increase qualifying purchases to 25%.	Stacey/Farrah	Ongoing	Increased utilization of ESRP as measured by qualified purchases
2.5	Expand lab waste recycling/diversion program.	Sheela/Chris G./ Stacey	FY21	Successful implementation of lab waste recycling program.
2.6	Work towards Zero Waste game days (and other events) in the on-campus stadium, inclusive of designated tailgating areas. Budget resources to pay students.	Sheela	Ongoing	Track % diverted and increase over time.
2.7	Increase number of water bottle filling stations	Stacey	Ongoing	Track number of new filling stations installed
2.8	Develop Green Event Guidelines (coordinate with Engagement).	Stacey/Sheela	FY20	Number of Green Events
2.9	Continue to improve logistics for annual waste audit to include additional waste streams on campus to better understand the unique waste streams from different building types (residential, academic, athletic, lab, etc.).	Sheela	Ongoing	Documentation of expanded waste audit results.
	<i>This goal aligns with Goal #10 (physical resources) of the University Strategic Goals</i>			

Goal #3. Greening Transportation and Fleet Operations

Air Travel & commuting are the 3rd and 4th highest sources of GHG emissions for the university after electricity and natural gas

	Strategy	Who is responsible?	When should this be accomplished?	What measure(s) will tell us if we are successful?
3.1	Support reduction in GHG emissions from Air Travel paid for by the university. Strategies include: <ul style="list-style-type: none"> • Reducing Trips • Using lower carbon intensive modes of travel • Offsets 	Air Travel Subcommittee	FY20	Reduction in emissions as measured by the annual GHG inventory
3.2	Support the expansion of the vehicle restriction policy to an “emissions free” zone. Communicate and implement a no idling guideline campus wide – applicable to CSU vehicles and campus vendors and visitors.	Facilities PTS	FY20	Resigning of smoke free zone and enforcement of vehicles encroaching or idling
3.3	Support a full utilization of CSU fleet vehicles. Support opportunities to increase efficiencies, introduce alternative fueled vehicles, right-size the fleet, and reduce GHG emissions. Pursue green fleet certification. Pursue strategies like distributed fleet to reduce reimbursements for use of personal vehicles for university business. Add'l EV chargers to support employees and distributed fleet.	Carol/Stacey/Aaron /Tiffany	FY20	Reduction in impact of fleet on GHG footprint through improved average mpg of campus fleet vehicles. Reduction of reimbursements for mileage.
3.4	Improve commuting mode split to reflect an increased adoption of alternative transportation options. Tie goals to CAP strategy.	Aaron	Annual and ongoing	PSC set targets. PTS to lead implementation.
3.5	Continue to improve alternative transportation initiatives for any/all events held at the on-campus stadium.	Aaron	Ongoing	Successful implementation of bike valet, Bike to the Game, and other sustainable transportation options at new stadium.
	<i>This goal aligns with Goal #10 (physical resources) of the University Strategic Goals</i>			

Completed Goals:

- Joined the Green Sports Alliance.
- Endorsed the City of Fort Collins Road to Zero Waste Plan and served as an active partner in implementation.
- Supported the successful University Facility Fee Advisory Board composting facility project.
- Drafted a memo from PSC to encourage the integration of more electric vehicles into the CSU fleet.
- Implemented a way-finding system on campus. Developed Construction Standard for roadways, sidewalks, and trails that includes ADA and wayfinding standards.
- \$1 million in energy projects implemented in FY18 from ERF funds, saving \$190k/year
- Chemical Distribution Center – underway
- Bike-in themed game in fall of 2018
- Pilot program underway to recycle nitrile gloves and pipette tip boxes in campus labs
- Over 100 water bottle filling stations on campus
- Received Bee Campus USA certification
- Student led Zero Waste Team has made significant inroads in achieving waste reduction on game days
- CSU has developed an Integrated Pest Management Program (IPM)

Research Appendix

Sustainability Research Goals for CSU

President's Sustainability Committee :: Research Subcommittee

In order to truly address the challenges of sustainability, the scientific community has called for universities and research institutions to make greater strides toward changing the research culture, particularly supporting more interdisciplinary teams, engagement, and communication with stakeholders to drive research and disseminate findings. Universities recognize that to be on the cutting edge of science they must support a wide range of research activities and promote interdisciplinary research that connects different disciplines to address complex problems, yet there are many well-documented barriers to conducting interdisciplinary research in the university setting.

Barriers to interdisciplinary sustainability research are not unique to CSU, but the University is also not exempt from these. Our committee has identified significant barriers in the following areas:

Collaboration

- Networks across disciplines are lacking
- Disincentives from departments when funds for work will be shared across the University
- Intellectual barriers, including differences in methodology, language, and metrics of success. Also the additional time it takes to overcome these differences when working together
- 'Proposal ready' period is lengthened for interdisciplinary groups that must first develop common language and ideas (*note: existing programs at CSU such as SoGES GCRTs and PRECIP awards begin to address this*)

Proposal preparation

- Distribution of proposal opportunities – some departments have dedicated staff, others do not; likewise, communication about funding opportunities for research vary greatly across departments and colleges
- The assistance available to help with preparation of proposals varies widely across departments and colleges

Early career faculty and researchers

- Real and perceived risks to undertaking interdisciplinary research (both real and perceived have the same outcome)
- Interdisciplinary research often does nothing or little to help with tenure and promotion: departmental and college tenure and promotion codes often do not include criteria or metrics for recognizing interdisciplinary research; departmental and disciplinary cultures also tend to discourage interdisciplinary work
- Early career and non-tenured faculty have less autonomy to pursue research agendas of interest to them
- Inter-departmental research can pull faculty time away from their departments

Departmental/fields of study/organizations

- Faculty from the social sciences and humanities are often not included until later stages of proposals and projects – they can make greater contributions if involved in early stages, such as defining the problem (happens due to undervaluing the potential contribution of social sciences and the humanities, lack of existing networks, misunderstanding of social sciences and the humanities, etc.). Success in confronting global sustainability grand challenges will require deep understanding of human cultures and their capacity for adapting to stressors and change; social scientists and humanists will be key players in providing evidence and insight on these matters
- Existing organizations on campus can be fragmented and lack communication, which can lead to overlap and/or gaps

Applicability of research and communicating science

Revised 6/25/19

- Research questions are not necessarily geared toward answering the most pressing real-world sustainability problems that typically demand interdisciplinary approaches (research priorities and stakeholder needs are not always well matched, lack of channels for stakeholders to communicate questions to researchers, general disconnect)
- Scholars confront disciplinary and organizational disincentives to engage in research and outreach that is geared toward direct application to real-world problems
- Scientists often do not communicate findings to stakeholder populations (lack of incentives, lack of training or interest, scholarly publications advance science but are not geared toward or accessible for stakeholders and policy makers, etc.)
- Extension has experienced significant budget cuts and staff available do not match the public need, which is inconsistent with the land grant mission of the University

Recommendation: Improving incentives, access, and programs at Colorado State University for interdisciplinary research across the entire University will significantly increase our scientific relevance and competitiveness. The Research Subcommittee of CSU's President's Sustainability Committee has compiled the following list of ideas and incentives that we feel would facilitate better and more interdisciplinary research at the University. Our goal is to recommend to the President's Office, the Provost, and the Vice President for Research a menu of ideas that we feel would be most effective at achieving these goals and accelerating CSU's progress toward addressing some of the most pressing and relevant scientific questions of our time.

Summary of Goals: Sustainability Research Goals for CSU

Goal #1: Expand and improve existing sustainability-related research				
	Strategy	Appropriate entity to implement?	When should this be accomplished?	What measure(s) will tell us if we are successful?
1.1	Sustain and grow the existing programs that are highly effective at encouraging interdisciplinary sustainability research (e.g. SoGES, Water Center, Energy Institute, Center for Collaborative Conservation)			
1.1 a	Increase research funding for these programs	Provost, OVPR	Ongoing; target next 5 years	Goal 10% increase annually over the next 5 years
1.1 b	Increase communication and coordination among groups to identify collaborative opportunities and minimize overlap	SoGES, Water Center, Energy Institute, CCC, VPR	Ongoing	Increased number of research and outreach events that are jointly sponsored
1.1 c	Expand seed grant opportunities that potentially feed into larger grant opportunities (CIP and PRECIP, SoGES GCRT, Water Center, CCC, etc.)	OVPR, SoGES, CCC, Water Center	Ongoing; target next 5 years	Goal of 50% more seed grant research projects funded across all organizations

1.2	Increase efforts in the University to identify existing strengths, opportunities for collaboration, and create an environment for researchers and faculty to create opportunities for interdisciplinary sustainability work			
1.2 <i>a</i>	Polling or queries to faculty on what are the most pressing research topics	SoGES, OVPR, colleges, other centers	Spring 2017 for fall topics	Number and breadth of responses; topic suggestions that are representative of CSU interest and expertise
1.2 <i>b</i>	Socials/mixers/meetings for faculty interested in specific topics to meet one another and discuss ideas	SoGES, OVPR, colleges, other centers	Long-term, should happen regularly over many years	Event surveys and follow-up correspondence to gauge utility and success of connecting faculty and new partnerships
1.2 <i>c</i>	Panels and symposia to discuss successful examples as well as unsuccessful attempts on campus and challenges to interdisciplinary work	Provost office	Long-term, should happen regularly over many years	Event surveys and follow-up correspondence to gauge utility and success of overcoming barriers and ideas for successful partnerships

Goal #2: Incentivize and incubate new interdisciplinary sustainability-related research				
	Strategy	Appropriate entity to implement?	When should this be accomplished?	What measure(s) will tell us if we are successful?
2.1	Create joint postdoctoral positions: ideally cohort of 3-4 accepted/year, 2-year positions, joint proposals between postdoc candidate and at least 2 faculty members from different departments/colleges, programming for cohort throughout year as well	SoGES with funds match from President's office/provost	2020	2 by 2018, 6 by 2020. Measured by impact- whether there is ongoing collaboration between those faculty, unique opportunities for postdocs/ their competitiveness after
2.2	Provide more support for proposal prep and administration			
2.2 <i>a</i>	Teaching release for proposal prep and for serving as PI for large/complex grants	SoGES, OVPR, Provost, colleges, departments	2020	Increase in large/complex grant proposals submitted and/or won

2.2 <i>b</i>	Increased messaging about opportunities from central university, someone to aggregate sustainability-related grant opportunities and send to all departments on campus	OVPR	FY 2017-18	Grant opportunities distributed to all research faculty across all departments
2.2 <i>c</i>	Expand support staff available to help coordinate large proposals	OVPR	FY 2017-18	Support staff available to help across all departments
2.3	Encourage teaming that goes beyond individual universities and traditional partnerships (Buyouts instead of sabbatical, internships, etc.)	OVPR	Ongoing	Completion of at least one teaming and one visioning workshop, similar to those facilitated by PRECIP

Goal #3: Recognition and dissemination of sustainability-related research				
	Strategy	Appropriate entity to implement?	When should this be accomplished?	What measure(s) will tell us if we are successful?
3.1	Create a big, University-level award for interdisciplinary sustainability research. Include an Early Career category	Jury of faculty to peer review; President give the award	Jury established Spring 2017, first awards FY 2017-18	Awards well recognized at University; one of the measures taken into account for career advancement decisions
3.2	Increase departmental and college-level incentives and support for interdisciplinary research	University-wide, but must start at leadership-level	Ongoing	All colleges and departments across campus encourage inter-departmental research collaborations,
3.3	Increase resources and staff available to help translate and disseminate science (science communicators); and available to gather feedback and stimulate future research objectives	President's office; CSU extension	FY 2018-19	Majority of sustainability-relevant research findings/publications discussed with communication office to assist with dissemination; where appropriate, communications staff relay queries and concerns of public to researchers for future work

Goal #4: Doing research sustainably at CSU				
	Strategy	Appropriate entity to implement?	When should this be accomplished?	What measure(s) will tell us if we are successful?
4.1	Green labs	CSU Facilities & EHS with help from Research Subcommittee		

4.1 a	Hire coordinator for green labs program	Facilities, EHS, and President's office	2017	Position created
4.1 b	Develop opt-in, incentive-based green labs program for CSU	Facilities, EHS	FY 2017-18	Researchers regularly self-selecting in to program based on clear advantages of joining; robust suite of services and incentives available to researchers and labs; long-term reduction in energy, water, and resources used
4.1 c	Jointly identify possible incentives and create mechanisms for sharing success and best practices	Research subcommittee, Facilities, EHS, colleges	FY 2017-18	
4.2	Develop guidelines for new labs	CSU Facilities, EHS	FY 2017-18	All new/incoming labs receive guidelines

Explanation of Goals: Sustainability Research Goals for CSU

Goal #1: Expand and improve existing sustainability-related research

- 1.1 **Sustain and grow existing programs that are highly effective at encouraging sustainability research.** The existing organizations including the School of Global Environmental Sustainability, the Water Center, the Energy Institute, and the Center for Collaborative Conservation allow for more flexibility in organizing this work and have been very effective at facilitating interdisciplinary sustainability research at the University. We recommend continuing, and where possible providing additional resources and support to these to continue their work. In an effort to reduce redundancy, we recommend increased communication between these organizations when selecting research awardees. We also recommend that where appropriate and beneficial, new and emerging initiatives and centers consider inclusion in the existing framework of these organizations rather than creating new centers on campus, as proliferation of new centers can lead to further fragmentation of interdisciplinary research.
- 1.2 **Increase efforts at the University to identify strengths, opportunity for collaboration, and create an environment for researchers and faculty to be thinking about opportunities for interdisciplinary work.** We recommend two types of programming for existing faculty. The first is topical meetings for faculty from across the University that would help identify areas of common interest and collaboration, University strengths in research areas, and also help establish interdisciplinary linkages so they are already networked and poised when calls for proposals are announced. The second is panels or symposia to exchange ideas and lessons learned from not only successful, but also unsuccessful interdisciplinary faculty groups on campus who can share challenges and keys to success when embarking on these projects. Before either of these take place, we first recommend polling faculty to better identify the research topics with greatest potential impact and help guide and structure events.

Goal #2: Incentivize and incubate new interdisciplinary sustainability-related research

- 2.1 **Create joint postdoctoral positions.** The goal for the postdoc program is to put out an annual competitive call for proposals where two or more faculty members from different departments and a postdoc candidate together would jointly apply for a fully funded two-year postdoc position. The postdoc position would be shared between those faculty members/departments. Ideally this program would accept between three and five new postdocs each year for between six and ten postdocs annually. Postdocs would form a cohort that also receives semi-regular training, meetings, networking opportunities, mentorship, and other support provided by the SoGES. SoGES has already begun fundraising for this program. We recommend additional funding support if available, as we feel this would be the most effective effort from this list. The program would encourage interdisciplinary and collegial relationships for faculty members and have an ongoing impact on

their ability and enthusiasm to work together long after the position has ended. Furthermore, this program will position postdocs to be more competitive and relevant in their fields, ready to make an impact on sustainability science and also better equipped to work on interdisciplinary projects.

- 2.2 Increase support for proposal preparation and administration.** We have four recommendations to help with the application for and administration of grants:
- More University-wide messaging about sustainability-related grant opportunities. Department and college-level communication about upcoming grant opportunities varies widely across the University – some faculty report regular messages; others never hear about grants.
 - Expansion of the support staff in the OVPR available to help coordinate large proposals.
 - More teaching release opportunities for proposal preparation for large grants.
 - Teaching release opportunities to serve as a PI on large grants that have been won.
- 2.3 Encourage teaming that goes beyond individual universities and traditional partnerships.** Opportunities exist for faculty to collaborate on research with researchers from other universities, government, and non-governmental institutions, but it can be difficult to find time and resources to work on these projects. In some cases, funding exists, but would require use of sabbatical leave in order for faculty to engage. Our recommendation is to provide more avenues to work on inter-organizational teams that do not require use of personal time, such as course buyouts, internships, and other departmental arrangements. If there were more streamlined mechanisms for faculty to collaborate across institutions and organizations, CSU would likely see an additional increase in meaningful, high-impact research by its faculty.

Goal #3: Recognition and dissemination of sustainability-related research

- 3.1 Create a big, University-level award for interdisciplinary sustainability research.** Two categories: one for all research, and one for early career to help incentivize and provide recognition for interdisciplinary work to young faculty. These awards would be peer-reviewed, and ideally made very high profile at the University to help give merit and acknowledgement for this work. Our goal is to acknowledge interdisciplinary and sustainability work, while also helping to elevate that work and mitigate some of the disincentives.
- 3.2 Ongoing efforts at the University to increase departmental and college-level incentives and support for interdisciplinary work.** *All of our committee's goals seek to address academic culture change around interdisciplinary research, but we wanted to be sure it is called out as a goal for CSU in and of itself as well.*
- 3.3 Increase resources and staff available to help translate and disseminate science.** To truly have an impact on global grand challenges, researchers need to ask research questions that are applicable and relevant to real-world issues and also disseminate findings to stakeholders and decision-makers. There are few incentives for researchers to do either, likewise researchers often lack the tools and skills to communicate their findings to external audiences. Our committee recommends an increase in science communication staff at CSU who are available to translate findings for non-academic audiences, help communicate results, and also gather stakeholder feedback to stimulate future research objectives. Our recommendation is to invest more University resources into science promotion teams, which would consist of science communication experts and social scientists working in community-based or participatory methods, able to work closely with faculty to understand their science and possess the technological knowledge to help disseminate information. This goal aligns with CSU's land grant mission, and calls for a re-envisioning of how the University approaches extension and media communication to address dissemination of science.

Goal #4: Doing research sustainably at the University

- 4.1 Green labs.** Science buildings and laboratory spaces are some of the greatest users of energy, water, chemicals, and resources on campus. A Green Labs program, run through CSU Facilities Management, will work toward an overall goal of achieving reduction in greenhouse gas emissions and minimizing the environmental footprint of the University. Our recommendation, in conjunction with representatives from Facilities Management and Environmental Health Services (EHS), is to develop a Green Labs program for CSU using an opt-in, incentive-based model. This approach will capitalize on opportunities and benefits to faculty for

participating in Green Labs, such as shared resources, training, expansion of departmental resources, enhancing safety, and other cost savings. Facilities Management and EHS have already developed a proposed Green Labs program structure (based on successful, existing programs at other institutions). Our committee recommends that the President's office hire a Green Labs program coordinator in Facilities Management to develop and implement this program – the position will likely be able to pay for itself over time. Additionally, the committee plans to work with Facilities Management and EHS to demonstrate and offer support from the research community, jointly identify incentives for the Green Labs program, create mechanisms for sharing success and best practices with researchers, and show support for the existing and potential work of research and Facilities Management staff. This combined effort would aid in the reduction of energy and water use, potential reduction in chemical use and hazardous waste production, use of more “earth friendly” chemicals, and identify additional efficiencies. Examples of potential resources available through a Green Labs program include: databases of existing equipment and resources, opportunities to share expensive or resource-intensive equipment between labs, rebates and financial assistance to purchase more energy efficient equipment, training and information on best practices, inclusion of Facilities Management staff when making purchasing decisions, etc.

- 4.2 **Develop campus-wide guidelines for new research labs.** To be developed in conjunction with CSU Facilities Management and Environmental Health Services staff and embedded into the CSU Facilities Management building standards, these best practice guidelines would serve as a template for all new research space on campus as well as assist in designing safe, efficient, and cost-competitive lab space that attracts and retains top research talent.

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