

# **South Dakota State University Sustainability Plan**

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## Introduction

Sustainability is in the heart of South Dakota State University. Environmental, economic, and social sustainability are stated as part of the university's core values and are key principles of its land-grant heritage. Being a University, SDSU has the unique opportunity to educate on and advance sustainable efforts. Not only will these efforts enhance campus sustainability, but they will also assist in other university-wide efforts. The following pages will emphasize the importance of sustainability and its relationship to SDSU, as well as provide directives on how we can advance our sustainability efforts.

### Vision

South Dakota State University will inspire faculty, staff, students, and visitors to live more sustainably through campus-dedicated efforts to achieve environmental, economic, & social sustainability.

### Mission

SDSU promotes and encourages sustainable lifestyles through the integration of sustainability concepts in academics, engagement, operations, and administration.

## Sustainability Definition

Sustainability is the formation of a better society through the interdependent actions of improving environmental quality, increasing economic prosperity, and instilling social justice for present and future generations.

## Definition of each pillar of sustainability

- Environmental sustainability – the act of preserving, restoring, and utilizing the earth's natural resources in a way that does not inhibit ecological services, remove resources faster than they can be replenished, or harm the surrounding environment.
- Economic sustainability – the act of distributing money and resources equally so that all may obtain basic human needs. Being economically sustainable should allow the economy to function, prosper, and thrive.
- Social sustainability – the act of ensuring all people are treated with equity and have access to basic human rights, including but not limited to: clean water, nutrition, education, healthcare, sanitation, shelter, security, a meaningful livelihood, and the opportunity to pursue their aspirations.



## Why is Sustainability Important?

Sustainability is a broad and encompassing topic with themes that are key to a better society. It is through an interconnected effort that we reach sustainability and a better society. Introducing sustainability into campus practices and education will expose students, faculty, and staff to the concept and significance of sustainability, as well as its long-term importance when making decisions. Education on sustainability will open eyes and lead campus to help solve one of the world's greatest issues.

Sustainability is important for many different reasons. First of all, many of the resources we use come from a finite supply. Practicing sustainability can help ensure that these resources last longer and do not disappear. Furthermore, the earth provides several services to the surrounding environment that positively affect our lives. Without these services, which are at risk due to unsustainable practices, we may face greater challenges such as increased flooding and water pollution. Taking a look at how we use our monetary resources can also contribute to sustainability by ensuring that the economy continues to prosper. Last but not least, sustainability provides important visions to how we can obtain social justice.

## South Dakota State University and Sustainability's Relationship

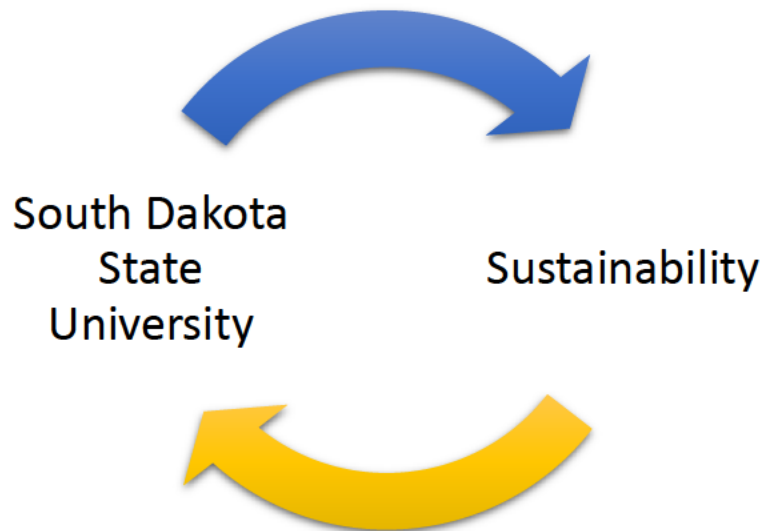
When planning for sustainability, we need to consider two things: how sustainability will benefit SDSU, and how SDSU will benefit sustainability.

Sustainability is a vital and growing concept of today. By including sustainability on campus, SDSU will join with many of the world's efforts to provide a better future.

SDSU can impact thousands of lives by providing formal and informal education on sustainability. In turn, sustainability provides a global and encompassing view which allows students to evaluate an issue from all aspects, assess the impact of individual components, and find a solution that works for all counterparts. Since sustainability is deeply interconnected with all walks of life, knowledge of sustainability can further increase our graduates' positive impact beyond campus. SDSU's students today will become better leaders for tomorrow.

Many sustainability efforts make for a healthier environment and lifestyle. These include having a cleaner indoor environment, reduced air pollution and use of pesticides outdoors, and more active forms of transportation (i.e. bicycling) to campus. Through campus' operations and administration SDSU can show campus members just how sustainability is important and how it can be practiced.

Finally, SDSU has the opportunity to reach beyond our current boundaries and student population. We can help provide education opportunities to all populations regardless of background and socioeconomic status by increasing our enrollment numbers while providing basic human needs to all. The hands-on work we accomplish and the solutions we discover through research can help us reach beyond our physical grounds to impact not only our local community, but our global community as well.



## Past Accomplishments:

SDSU is proud of their sustainability efforts. Over the past many years, campus has seen sustainability appear in multiple aspects of campus.



42 faculty engaged in sustainability-related research



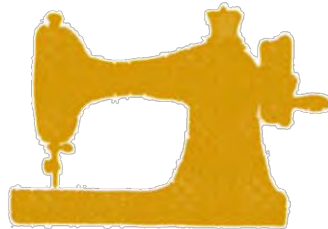
Sustainability immersive experiences are available



Open access to faculty research



Regular sustainability features in campus newspaper



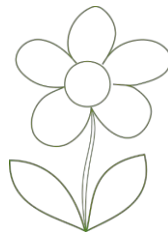
SDSU clothing is made under fair working conditions



Sustainability is included in new student and faculty orientations



13 LEED silver & gold certified buildings



Landscaping includes native & pollinator plants



16% recycling rate in FY2016



Full-time Sustainability Specialist



65% of low-income students' financial needs are met



Diversity programs

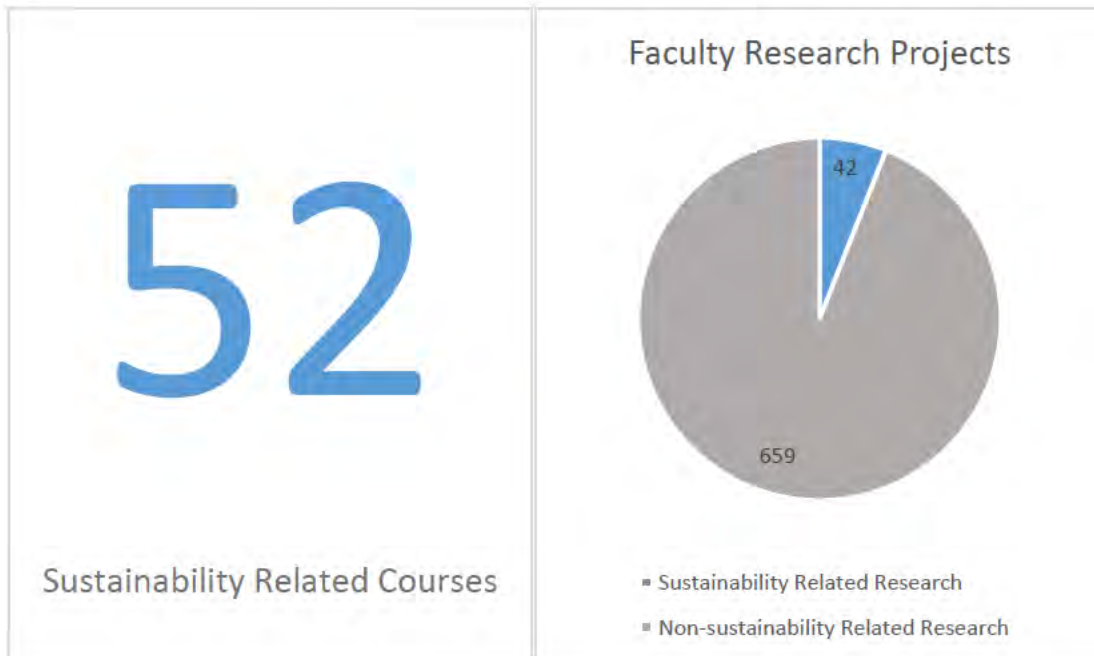


## Academics

SDSU is the largest university in the state with an enrollment of over 12,000 students, including over 700 international students. Through integrating sustainability in academics and research, students will gain an understanding of sustainability and learn how their field connects to solving the sustainability puzzle. This education and increase in general knowledge of the importance of sustainability will incur a change in global sustainability.

Goals	Objectives
Integrate sustainability concepts into academic programs.	<p>Integrate modules, projects, papers, etc. into courses across all departments.</p> <p>Formulate and utilize sustainability learning outcomes for colleges or the university in general.</p> <p>Offer incentives to encourage faculty to integrate sustainability into their courses.</p> <p>Develop a sustainability minor/certificate.</p>
Understand campus' knowledge and interest in sustainability.	Assess student, faculty, and staff's knowledge of sustainability.
Encourage sustainability research.	<p>Develop financial support, mentorship, workshops or other incentives for students and faculty to conduct sustainability research.</p> <p>Publish a sustainability research guide.</p> <p>Increase the number of faculty conducting sustainability research.</p>

### Current Status:





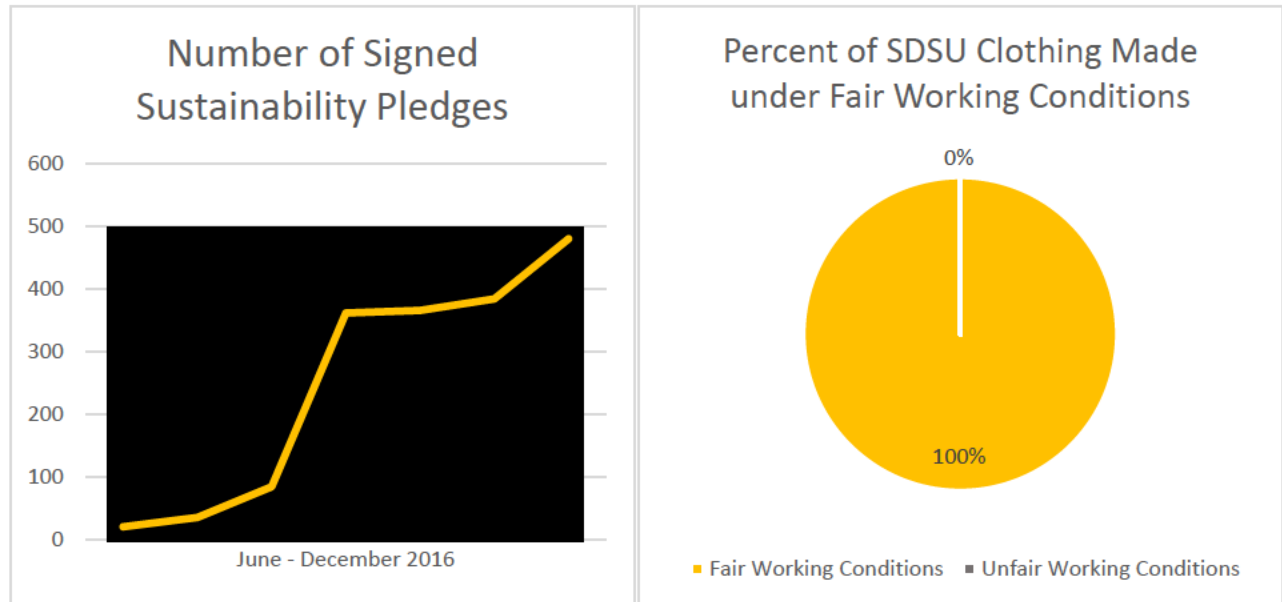


# Engagement

Extracurricular activities play an important role in engaging and shaping a student's perspectives. It provides faculty, staff, and students a way to learn and try sustainability practices in a fun and hands-on way. By offering additional sustainability programs and resources, SDSU will increase campus' engagement in sustainability and encourage campus members to practice sustainability in their own lives.

Goals	Objectives
Utilize peer influence to encourage and involve campus members in sustainability.	Implement a student and faculty peer-to-peer education program.
Encourage sustainable lifestyle by providing opportunities, resources, and information.	<p>Increase opportunities for extracurricular learning through actions such as a selecting a sustainability themed common read, offering workshops and speakers, promoting the sustainability pledge, and implementing a student sustainable investment fund.</p> <p>Provide multiple avenues to communicate information about campus efforts and sustainability best practices to campus. Outreach efforts could include items such as a sustainability map, commuter guide for using alternative means of transportation, guide for sustainable living in the residence halls, and signage regarding sustainable food sources.</p>
Utilize and share campus sustainability resources to spread sustainability practices beyond SDSU's campus.	<p>Collaborate with the Brookings Sustainability Council to enhance the community's sustainability.</p> <p>Engage with other universities through AASHE, presenting at conferences, serving on an inter-campus committee on sustainability, and providing resources to higher education sustainability data bases.</p>

## Current Status:



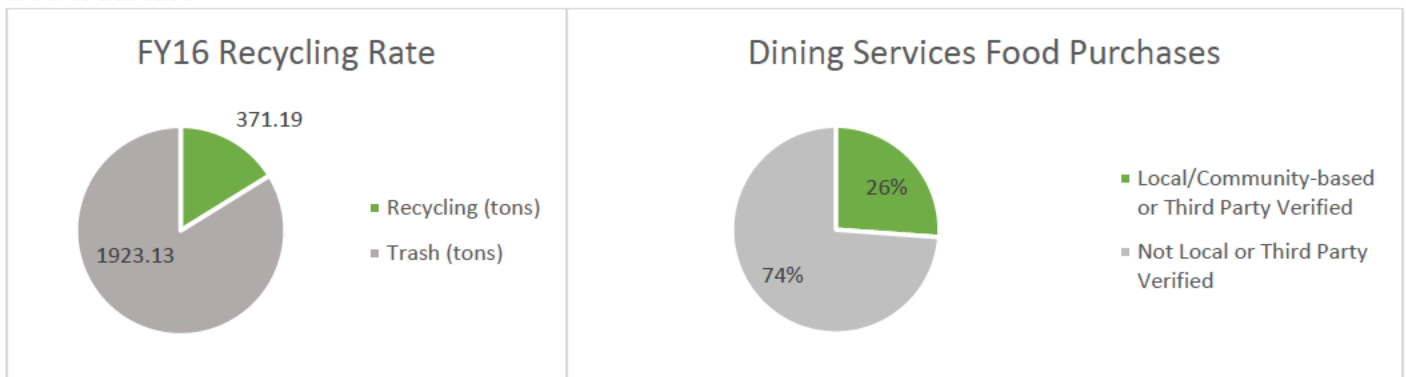


# Operations

In order to effectively encourage others to create a sustainable lifestyle, campus must do the same. While SDSU already integrates sustainability in their energy conservation and building design, SDSU will live by example increasing campus operation's sustainability even further and encouraging students, faculty, staff, & visitors to do the same in their lifestyles.

Goals	Objectives
Design and manage our university landscaping in a way that protects environmentally sensitive areas and endangered and vulnerable species.	Conduct an assessment to identify endangered and vulnerable species and/or environmentally sensitive areas, AND develop and begin utilizing a plan to protect the identified species and areas.
Utilize SDSU's purchasing power to support and promote sustainable products.	Develop and approve policies such as using life cycle cost analysis when purchasing water and energy products and setting expectations for social and environmental responsibilities for contractors.
Practice energy conservation and good air and water quality management.	Develop policies to encourage energy conservation and good air and water quality management.
Promote and encourage alternative means of transportation both to and on the SDSU campus.	<p>Increase the number of students, faculty, and staff commuting to campus by alternative means of transportation (i.e. biking, walking, carpooling, etc.).</p> <p>Install infrastructure features such as long-term bike parking and shower facilities.</p> <p>Offer incentives to encourage campus members to use alternative means of transportations, such as offering a guaranteed return trip, discounted parking passes for carpooling, and encouraging employees to live close to campus.</p>
Minimize the University's waste impact and reduce the amount of trash sent to the landfill.	<p>Increase campus recycling and diversion rates.</p> <p>Implement additional recycling options, such as book and e-waste recycling.</p>
Promote sustainable food sources and minimize the environmental impact of campus dining.	<p>Increase the amount of food sourced from third-party or local-community based businesses.</p> <p>Offer culturally diverse and vegan options.</p> <p>Integrate sustainability into dining operations by providing discounts for using reusable mugs/containers, hosting sustainability-themed meals, and diverting leftover food from the landfill.</p>

## Current Status:



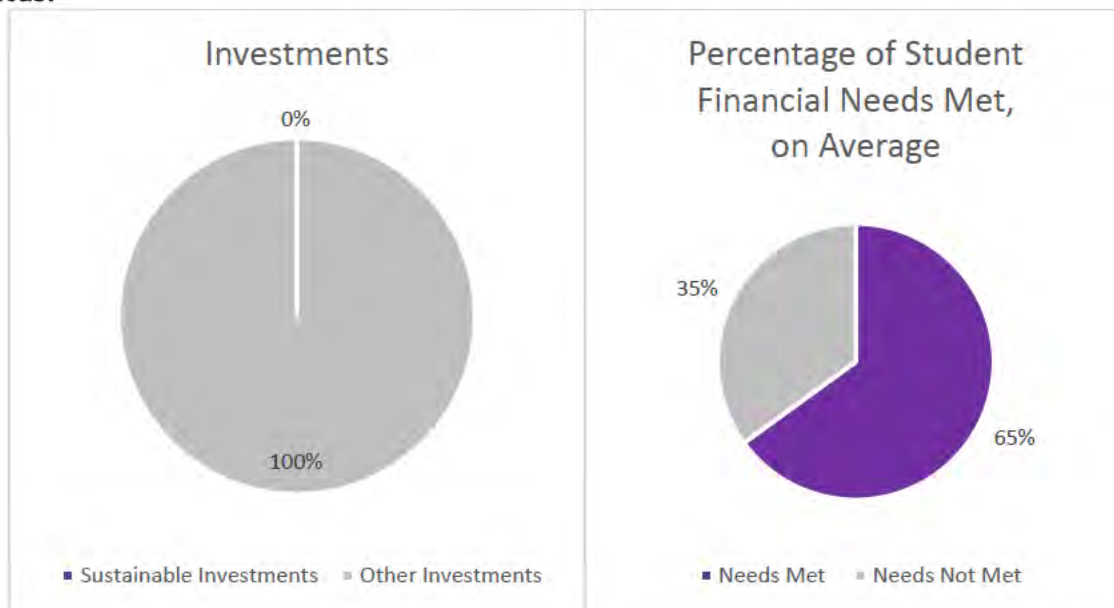


## Planning & Administration

Ensuring faculty, staff, and students are treated fairly and have an opportunity to provide campus input is vital to running a university. Not only is good care and clear communication the right thing to do, but it also supports a sustainable community. By including sustainability in our campus administration structure and providing resources for students and employees in need, SDSU will strengthen their message of sustainability.

Goals	Objectives
Provide guidance on areas for sustainable improvement.	Create and follow a campus sustainability plan.
Utilize SDSU's investment power to support and promote sustainable practices and companies.	<p>Create a committee on investor responsibility that has social and environmental responsibility as part of their focus.</p> <p>Devote a portion of SDSU's investments to sustainable investments.</p> <p>Ensure a portion of the SDSU's total invest is publicly available.</p>

### Current Status:





## Appendix A: Detailed Sustainability Plan

Academics			
Goals	Strategies	Outcomes	Goal points for next STARS Report
Integrate sustainability concepts into academic programs in order to educate the next generation in sustainability issues and engage them in creating a solution.	Work with faculty in developing and providing guidelines for how to integrate sustainability into their courses.	Integrate sustainability into an additional 200 courses OR include a sustainability course in each department.	6.85
		Graduate 600 students annually from programs that have a sustainability learning outcome OR write a sustainability learning outcome for the University.	2.03-8
	Gain the University's support to integrate sustainability into curricula.	Offer incentives to faculty who integrate sustainability into their academic courses.	2
Offer an interdisciplinary program for students who are interested in learning more about sustainability and would like to integrate it into their career.	Consider the courses currently offered and collaborate with departments to develop and approve a program.	Offer an undergraduate sustainability minor or certificate program.	1.5
Evaluate campus knowledge and interest in sustainability to help address where improvements can be made and where campus' interest lie.	Develop a survey that assesses student knowledge and interest in sustainability.	Administer a pre- and post- assessment to either a representative sample of campus or a specific group (i.e. freshman then seniors).	3.0-4.0
	Develop and distribute a survey to understand faculty and staff knowledge of and interest in sustainability, as well as, inventory courses they have integrated sustainability concepts.	Administer an assessment to faculty and staff.	-----
Encourage sustainability research in order to increase SDSU's contribution to a solving local, national, and global sustainability issues.	Gain the University's support to research sustainability.	Develop financial support, mentorship, and/or other incentives for students to partake in sustainability research opportunities.	3
		Develop financial support, workshop opportunities, and/or other incentives for faculty to conduct sustainability research.	
	Publish a sustainability research guide.		
	Encourage faculty to pursue sustainability research.	Increase the number of faculty conducting sustainability research to 67 OR increase the number of departments that conduct sustainability research to 37.	8.21



**Engagement**

Goals	Strategies	Outcomes	Goal points for next STARS Report
Maximize peer influence to encourage and involve campus members in sustainability efforts.	Collaborate with campus entities to coordinate opportunities or programs for peer-to-peer education.	Implement a student peer-to-peer education program geared towards students.	1.42
		Implement a formalized employee peer-to-peer educators program that reaches at least 475 employees.	0.68
Encourage sustainable lifestyles by providing opportunities, resources, and information.	Increase opportunities for extracurricular learning to show sustainability is an important topic of today, engage and interest campus in the topic, and offer them an opportunity to learn outside of the classroom setting. (must accomplish 8 of the outcomes to earn full points)	Maintain an active student sustainability club.	2
		Maintain local garden or farm for students to learn about sustainable farming practices.	
		Maintain sustainability related student employment opportunities offered by SDSU.	
		Maintain sustainability pledge.	
		Maintain I, Too, Am SD State campaign.	
		Improve sustainability speaker series, conference, or symposium offerings.	
		Select a common read book that focuses on sustainability.	
		Implement a student run enterprise.	
	Provide multiple ways to reach campus members regarding sustainability efforts and best practices. (must accomplish 8 of the outcomes to earn full points)	Implement a student sustainable investment fund, green revolving fund, or sustainable microfinance initiative.	2
		Organize a cultural arts event, installation, or performance centered around sustainability.	
		Integrate Leave No Trace Behind into Outdoor Programs.	
		Organize and offer programs that offer students sustainable life skills (i.e. workshop).	
		Maintain a sustainability website.	
		Maintain sustainability social media pages.	
		Maintain building sustainability signage.	
Provide an opportunity to target one specific sustainability area and improve it.	Implement a way for students to publish and share student sustainability research.	4	
Collaborate with Brookings organizations and/or the City of Brookings to work towards a more sustainable community.	Coordinate and share a quarterly sustainability newsletter.	1.0-3.0	
	Set up signage regarding sustainable grounds keeping.		
	Create a sustainability map and/or tour.		
	Create a commuter guide on how to use alternative modes of transportation.		
	Provide navigation and education tools for bikes and pedestrians.		
	Provide a green living guide for the residence halls.		
	Include a regular sustainability column in the Collegian.		
	Launch a campaign that targets students, faculty, and staff and creates a measurable positive result.		
Utilize campus sustainability resources and knowledge to spread sustainability practices outside of SDSU's geographic boundary.	Help advance Brookings' sustainability.	2	
	Member of AASHE.		
	Member of regional sustainability network.		
	Present at sustainability conference.		
	Submit a case study to AASHE Hub that is inclusive of multiple campuses.		
	Serve on a board or committee of a sustainability network or conference.		
	Mentorship with another university.		
Instill a sustainability culture in new students, staff, and faculty to help grow the sustainability culture on campus.	Integrate sustainability concepts and activities into orientation sessions.	Peer review other university's sustainability plans.	1.6
		Collaborate with other universities on projects, planning, or resources, etc.	
		Reach 80% of incoming students regarding sustainability.	1.6
		Reach 63% of incoming faculty and staff regarding sustainability.	0.63

Operations			
Goals	Strategies	Outcomes	Goal points for next STARS Report
Design & manage our university landscaping in a way that protects environmentally sensitive areas and endangered or vulnerable species.	Coordinate with the Natural Resource Management and Plant Science Departments to learn about their current efforts and aid in the development and assessment of campus.	Conduct an assessment to identify endangered or vulnerable species and/or environmentally sensitive areas AND develop and begin utilizing a plan to protect or positively affect species and areas identified.	1
Provide a healthy indoor and outdoor environment.	Minimize greenhouse gas and air pollutant emissions.	Research if a carbon offset program would be feasible on campus and implement a program if so.	2.24
		Conduct an inventory of significant air emissions from stationary sources.	0.5
		Continue to track IAQ sensors in buildings and support the implementation of these sensors in new construction and major renovations.	0.51
Protect the surrounding ecosystem during construction projects.	Reduce the water pollution from construction.	Develop a policy to encourage the use of low impact development landscaping during all new and major construction projects.	2
Utilize SDSU's purchasing power to support and promote sustainable products.	Encourage and promote sustainable purchasing and tracking.	Develop and approve a policy for Life Cycle Cost Analysis.	0.5-1
		Develop and approve vendor code of conduct or equivalent policy that sets expectations about the social and environmental responsibility of the institution's business partners (i.e. product and service providers).	0.25
Promote and encourage alternative means of transportation both on and to the SDSU campus.	Increase the number of campus members who use alternative modes of transportation.	Increase the total percent of students who use alternative modes of transportation to 50%.	1.5
		Increase the total percent of employees who use alternative modes of transportation to 22.5%.	0.45
	Provide resources, offer incentives, build infrastructure, and organize events centered around alternative modes of transportation and their benefits. (must do 7+ of the outcomes)	Develop a campus bicycle master plan.	1.4
		Provide secure bike storage, shower facilities, and lockers for bike commuters.	
		Install long-term bike parking.	
		Offer a Guaranteed Return Trip (GRT) program.	
		Offer incentives for carpooling.	
		Offer reduced transit fees for campus commuters.	
		Implement car-sharing program.	
		Offer electric vehicle recharging stations.	
Offer telecommuting.			
Offer condensed work weeks.			
Provide incentives for employees to live close to campus.			
Minimize the university's waste impact and reduce the amount sent to the landfill.	Design and implement a program to reduce total campus waste reduction.	Decrease waste generated per campus user to 0.18 tons/year.	2.04
	Provide outreach and infrastructure to increase recycling rates.	Increase campus recycling rate to 25% and increase campus diversion rate to 33%.	1
	Work with appropriate departments to develop and implement recycling, re-using, donating, & re-selling programs for specific waste items.	Implement book recycling for faculty, staff, & students.	Indirect
		Maintain hazardous waste protocols AND implement e-waste recycling for students.	1
Require all construction projects to divert and track waste regardless of LEED status		Maintain a 95% diversion rate during construction.	0.95

Operations			
Goals	Strategies	Outcomes	Goal points for next STARS Report
Promote sustainable food sources and minimize the environmental impact of campus dining.	Work with Aramark to track and increase the amount of food bought from sustainable sources.	Have 38% of dining products come from third-party certified or local/community based businesses AND have 73% of our dining services products come from non-conventional producers.	2.2
	Work with Aramark to promote sustainable and culturally diverse food options as well as reduce the amount of waste generated in the dining facilities. (must do 8 outcomes to earn 1 point)	<p>Have a published sustainable dining policy.</p> <p>Source food from a campus garden or farm.</p> <p>Host a farmers market, community supported agriculture (CSA) or community supported fishery program, and/or urban agriculture project, or support such a program in the local community.</p> <p>Have a vegan dining program that makes, diverse, complete-protein vegan options available to every member of the campus community at every meal.</p> <p>Host low impact dining events (e.g. meatless Mondays).</p> <p>Host sustainability-themed food outlets on-site, either independently or in partnership with a contractor or retailer.</p> <p>Inform customers about low impact food choices and sustainability practices through labeling and signage.</p> <p>Engage in outreach efforts to support learning and research about sustainable food systems.</p> <p>Participate in a competition and/or use a food waste prevention system to track and improve its food management practices.</p> <p>Implement trayless dining and/or modified menus/portions to reduce post-consumer food waste.</p> <p>Donate food that would otherwise go to waste to feed people.</p> <p>Divert food materials from the landfill, incinerator, or sewer for animal feed or industrial uses.</p> <p>Have a pre-consumer composting program.</p> <p>Have a post-consumer composting program.</p> <p>Utilize reusable service ware for "dine-in" meals.</p> <p>Provide reusable and/or third party certified compostable containers and serve ware for "to-go" meals (in conjunction with an on-site composting program).</p> <p>Offer discounts or other incentives to customers who use reusable containers instead of disposable or compostable containers in "to-go" food service areas.</p> <p>Other materials management initiatives to minimize waste, improve wellness, and/or offer diverse cultural options.</p>	1

Planning & Administration			
Goals	Strategies	Outcomes	Goal points for next STARS
Provide guidance on areas for improvement in order to move the university towards their sustainability goal.	Formulate and design measurable, time-bound goals to help SDSU increase their sustainability.	Create and follow a campus sustainability plan that includes at least 9 of the following categories: *Curriculum *Research *Campus Engagement *Public Engagement *Air & Climate *Buildings *Dining Services *Energy *Grounds *Purchasing *Transportation *Waste *Water *Diversity & Affordability *Health, Wellbeing, & Work *Investments *Other.	2.95
Utilize SDSU's investment power to support and promote sustainable practices and companies.	Integrate new practices and policies to encourage transparency and sustainability.	Create a committee on investor responsibility for SDSU investments with social and environmentally responsible investments as part of their focus.	0.5-2
		Devote \$3 million of SDSU's investments to sustainable investments.	0.18
		Make 12% of the total investment of SDSU's investment holding publicly available.	0.12