



SLCC

SUSTAINABILITY

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SUSTAINABILITY PLAN



INTRODUCTION

Salt Lake Community College is dedicated to environmental stewardship. This Sustainability Plan presents the efforts of the SLCC community in that commitment with additional recommended goals and strategies. In the development of this all-inclusive plan, SLCC recognizes the importance of sustainability and the environmental, economic, and social gains of such efforts.

In the Spring of 2020, the Student Senate and Student Association Executive Council passed a resolution urging SLCC to create this comprehensive Sustainability Plan. SLCC students' commitment to sustainability and the recognized principles involved are the driving factors to the implementation of this plan. By adopting this plan, SLCC, as a higher-ed institution, is committing the necessary resources to bring environmental sustainability to the forefront of their planning and vision for the future.

SUCCESSFUL LEADERSHIP AND VISION

Salt Lake Community College is considering adding environmental sustainability to the College's Strategic Plan. This goal is in line with SLCC's long-term environmental sustainability efforts. The president's message on the strategic plan currently states, "Our plan continues to answer fundamental questions. What are the primary needs of students today and in the future? How do we craft the best possible learning experiences to meet their needs? And how will SLCC contribute to and strengthen the economic and educational wellbeing of the state" ("Your Community College" 2016). Adding sustainability to the core values of the institution would be a dynamic step in engaging the SLCC community. This would be a significant accomplishment in the successful implementation of this Sustainability Plan.

Active leadership and engagement by the Executive Cabinet, faculty, and staff on sustainability is additionally important in the continuing efforts of this plan. Sustainability programs within Utah System of Higher Education (USHE) public colleges and universities along the Wasatch Front have become more prominent in recent years. Currently, SLCC does not have a sustainability officer. In the implementation of its current and future sustainability policies, SLCC should consider adding a sustainability position to its full-time staff. This position would create accountability for the program and would punctuate SLCC's importance within the community on environmental stewardship.



KEY ELEMENTS

- Active leadership by college administration
- Engagement and awareness within the SLCC community including by faculty, staff, and students
- Defined goals and objectives with comprehensive action plans
- Strategies and expectations for reinforcing sustainability within the institution
- Progress reporting and monitoring

ORGANIZATION OF THE PLAN

The Sustainability Plan is divided into eight core components. These components with current and recommended strategies will be used to assist SLCC in its future environmental sustainability program.

- Student Activities and Sustainability Culture
- Landscape Management and Water Usage
- Transportation
- Waste and Recycling
- Facilities Future Development
- Energy Usage
- Academics
- Sustainable Purchasing



STUDENT ACTIVITIES AND SUSTAINABILITY CULTURE

SLCC needs to be committed to the deployment of its sustainability plan and look to defined goals on education and outreach to engage students and the rest of SLCC community to reduce their carbon footprints.



Current Strategies

The SLCC sustainability committee was formed in 2007 ("Recycling Operations Timeline"). It is all inclusive to members of the SLCC community, including students, and has been beneficial to the development of SLCC initiatives throughout the years. It currently holds three co-chairs.

Earth Day events and the Environmental Club are large drivers of sustainability education with SLCC students. The Earth Day event can include outreach, speakers, tabling, and upcycle recycle art contests. The Community Gardens at three of our campuses also offer outdoor space for the SLCC community and promote environmental stewardship through gardening.

SLCC has an innovation project "The Justice, Equity, Diversity and Inclusion for Social Transformation" (JEDI4ST). Its goal is "ending oppression, inequity, exclusion, and injustice." ("Justice, Equity, Diversity and Inclusion for Social Transformation" 2022). This project is important in highlighting the continuing commitment by SLCC of environmental justice best practices.

Recommended Strategies

SLCC should highlight community partners that work within environmental frameworks. This strategy provides an excellent opportunity for both our SLCC community and community partners to highlight their environmental stewardship.

Many of SLCC's environmental initiatives have come through student led initiatives. SLCC needs to continue providing opportunities for student leaders both in the SLCCSA, the Student Association, and SLICE, Student Leaders in Civic Engagement to promote environmental programming.

Sustainability Community Engagement Awards need to continue to be given by the Thayne Center. These awards highlight the person or program that best represents SLCC's commitment to environmental sustainability.

LANDSCAPE MANAGEMENT AND WATER USAGE

SLCC is located within an arid, desert climate. Water conservation has become an important issue not just for the Salt Lake Valley, but for all of Utah. According to NOAA, 2020 was the driest year on record for the state of Utah (“US Selected Significant Climate Weather Anomalies and Events,” 2021). SLCC looks to become a community leader in limiting water usage with its implementation of various water conservation policies.

Current Strategies

Our grounds department is dedicated to water conservation. We currently use secondary water at our Redwood campus for irrigation. We also have a new WeatherTrac system that uses real time data for temperature, humidity, time of day, and precipitation to limit watering and create weather-based adjustments to the watering schedule. SLCC has also xeriscaped multiple locations, reducing the need for watering and our new soccer field at the Redwood campus will utilize artificial turf. SLCC buildings use low water use fixtures to reduce usage.

Recommended Strategies

SLCC needs to develop specific goals for reducing water usage that consider the variability of year-to-year weather patterns.

SLCC should continue new xeriscaping projects to reduce turf grass around our campuses.

SLCC ought to continue the implementation of more drip/spray strategies in our campuses to reduce water usage in our irrigation.

SLCC needs to continue to plant more native, drought resistant vegetation.

SLCC should continue to comply with state water regulations during drought conditions.



TRANSPORTATION

Bad air quality days in the Salt Lake Valley are on the rise and the use of single occupant vehicle travel is predominant throughout SLCC. It is important to develop sustainable travel strategies including the use of electric charging stations in its future planning. SLCC strives to limit air pollution by reducing greenhouse gas emissions and its carbon footprint through reduced commuting, the use of public transportation, electric charging stations, alternative fuel fleet vehicles, and remote work. SLCC does not currently have any ride sharing or bicycling incentive programs.

Current Strategies

SLCC offers free UTA bus passes to all its students, faculty, and staff. Plans are in development to put a UTA bus hub on the Redwood campus. This hub will bring in more bus lines from the UTA system and provide greater access for the SLCC community to use the buses.

SLCC has 19 EV Charging Stations with the ability to charge 38 Electric Vehicles. 10 of these EV charging stations were funded by taking advantage of a grant program provided by the State of Utah. All students, staff, and faculty are invited to use the charging stations.

The State and Alternative Fuel provider program requires SLCC to follow the Energy Policy Act (EPAAct) of 1992. SLCC was required to have 75% of its fleet be alternative fuel by 2015. Wherever possible SLCC purchases alternative fuel vehicles for its fleet. SLCC is currently at 55% as defined by the EPAAct. The fleet department is waiting on additional funding to replace all vehicles that are over 90,000 miles or 10 years old with alternate fuel vehicles whenever possible.

Recommended Strategies

SLCC needs to commission a transportation study. The study will provide data on alternate transportation methods that the SLCC community could utilize. The audit would create a template to limit greenhouse gas emissions from commuting for SLCC.

SLCC should continue to work with UTA to encourage more bus routes to the various campuses throughout the valley. The college ought to encourage ride share and bicycle incentive programs. Additional bicycle repair stands, and rental programs should be considered for the campuses.

The addition of more electric charging stations needs to be considered as their utilization rate increases in the upcoming years. Alternative fuel fleet vehicles including electric and clean natural gas (CNG) should be considered and budgeted for.

SLCC ought to implement a program to encourage working from home and teaching remotely on bad air quality days. The creation of this program would also help educate the SLCC community to prepare for and recognize the importance of limiting commuting on such days.



WASTE AND RECYCLING

SLCC is committed to recycling and reducing waste as much as possible in its operations. It does this through a comprehensive recycling program, its dedicated waste hauler, the surplus store, and the re-purposing of furniture and equipment. Waste diversion to the landfill has become an important goal for SLCC. During the fall of 2010 with the addition of one-time funding, SLCC started a large-scale, centralized recycling program.

Current Strategies

The current waste diversion rate for 2021 is 48%, meaning almost half of the discarded items at SLCC were recycled. SLCC recycles cardboard, paper products, food waste, newspapers, plastic, glass, used oil and antifreeze, batteries, toner cartridges, electronic waste, steel, green waste, and much more. Recycling containers are currently located throughout all SLCC campuses. SLCC Recycling makes efforts to educate the SLCC community on best recycling practices. The Miller Campus Culinary school composts its food waste as part of its program and uses it in its herb garden. The Bruin Pantry recycles its food waste and sends it to Wasatch Resource Recovery to be turned into natural gas.

SLCC has a surplus program that limits waste to the landfill. At our warehouse any appropriate items including furniture and equipment are repurposed or sold.

Recommended Strategies

SLCC, working with its vendors and Miller Catering, should create more robust food waste reuse and recycling programs. Edible food can either go to our Bruin Pantries or to other entities that help those with food insecurity.

SLCC produces a lot of green waste, most specifically from grass and tree clippings. SLCC needs to consider a broad in-house compost program for green waste.

Cardboard and plastic packaging need to be limited at SLCC. SLCC should consider a program to review our purchasing practices to help limit packaging.

SLCC has an excellent recycling program. It ought to have a more in-depth review of specific waste reduction strategies that could increase its waste diversion.





FACILITIES FUTURE DEVELOPMENT

SLCC is in a constant state of renovation and new development as the population of the state and its subsequent student population increases. It strives to limit its environmental impact within its building development as it increases its footprint. SLCC looks to create buildings with excellent spaces for work and education.

SLCC reduces its impact by optimizing design strategies addressed in the High Performance Building Standards ("High Performance Building Program," 2021, February 23) per the Division of Facilities Construction and Management (DFCM) for the State of Utah. These standards address many of the strategies highlighted in the Leadership in Energy and Environmental Design (LEED) rating system ("Design Requirements 2021, February 2).

Current Strategies

SLCC Facilities has adopted Master Plans for its campuses. New Master Plans created for our Juniper and Jordan campuses highlight best practices for sustainability.

Current State of Utah requirements for new development fall under the High Performance Building Standards. The High Performance Buildings Standards (HPBS) require the use of energy specialists during design and development and are meant to maximize energy savings throughout the life of the building. They address many topics including design development, transportation, energy performance, envelope design and testing, water efficiency, materials, indoor environmental quality, commissioning, and incentives and rebates.

SLCC holds LEED certification for four buildings.

Recommended Strategies

All new Facilities Master Plans need to incorporate sustainability practices. This will highlight SLCC's commitment to environmental stewardship in our vision and planning.

New development and renovations should always consider the optimization of energy performance, the reduction of water usage and stormwater capture, the reuse of materials where feasible, optimizing space utilization, and any number of common green building standards.

ENERGY USAGE

SLCC is committed to reducing greenhouse gas emissions. SLCC has a dedicated energy manager who is responsible for directing the efforts of the college concerning energy usage. The college looks to reduce electricity and gas usage wherever possible.

SLCC uses various strategies to reduce greenhouse gases including investment in renewable energy, lighting upgrades, the evaluation and implementation of energy efficiency projects, central plant upgrades, and continuous audits and energy monitoring programs.

Current Strategies

At SLCC we have saved energy for the past 5 years in a row. As a continued effort to save energy, we will be concentrating on specific energy measures to meet our goals. We have a goal of one million kWh savings every year and a goal of 5% reduction of gas usage every year. To meet these goals, we have several strategies for energy efficiency improvements. Our focus is lighting upgrades to LED lights, heating and A/C maintenance and equipment upgrades, and renewable energy investment.

Each SLCC campus gets reviewed every 3 to 5 years for energy efficiency in its buildings and HVAC equipment. The review process focuses on equipment upgrades, building automation energy controls, and potential energy savings. The review provides optimal conditions for the heating and A/C needs for each building dependent on the time of day, occupancy, and current weather conditions.

SLCC has 6 solar arrays spread across multiple campuses with a total of almost 1.0 MW of capacity. SLCC also installed a solar canopy at the Redwood Campus. Due to the success and popularity of the solar canopy, we are planning another Solar Canopy at the Jordan Campus that is in the planning phase.

SLCC works with its partners Rocky Mountain Power and Dominion Energy. These partnerships provide energy reduction incentives through their Wattsmart Business Program and ThermWise Business Program. Every year we receive thousands of incentive dollars for energy efficiency upgrade projects.

Recommended Strategies

A commitment to carbon neutrality is something that SLCC can use to highlight its commitment to long term sustainability. The college needs to join the American College and University Presidents' Climate Commitment in an effort to address its greenhouse gas emissions. This commitment requires carbon neutrality by 2050. This would require substantial investment and commitment by SLCC.

SLCC should develop a Climate Action Plan and a full greenhouse gas inventory ought to be considered.

SLCC needs to continue to explore with its partners and Rocky Mountain Power to buy renewable energy sources to reduce our carbon footprint.



ACADEMICS

SLCC recognizes the importance of sustainability education and the environmental, economic, and social gains of such efforts. Sustainable curriculum, degree programs, and academic courses are vital to providing students with an all-around sense of environmental responsibility within the community. It helps students to communicate effectively on sustainability topics and provides them with the skill set to work with a sustainability mind set in their future careers.

Current Strategies

SLCC has an energy institute program that provides clean energy education in energy management, line-worker training, and solar array installation. The AAS in Energy Management transfers to Bismarck State College's online Bachelor of Applied Science in Energy Management. The current and previous energy managers both completed the AAS program and went on to get the Bachelors in energy management. SLCC also has an Environmental Science and Sustainability Certificate, and the biology and physical science departments have many courses that include sustainability programming. SLCC also includes some sustainability programming in its culinary, humanities, economics, and construction trades classes.

Recommended Strategies

Essential Learning Outcomes are provided by the Utah System of Higher Education (USHE).

As stated in the R470 of the USHE standard (2020) the Essential Learning Outcomes are:

- **2.4.1.1. Acquire Intellectual and Practical Skills**
- **2.4.1.2. Gain Knowledge of Human Cultures and the Physical and Natural Worlds:** Courses requiring study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts, focused by engagement with "big" questions – both contemporary and enduring.
- **2.4.1.3. Develop Personal and Social Responsibility**
- **2.4.1.4. Demonstrate Integrative Learning**

These essential learning outcomes provide the context for SLCC to promote sustainability education in its future curriculum development and degree programs. Sustainability topics should be related to each learning outcome.

SLCC ought to offer more sustainability training and course development for faculty. This training would help facilitate more programs to include the topic of sustainability as it relates to their curriculum.

SLCC needs to offer more degrees, concentrations, or certificates that transfer directly into bachelor's degree or jobs program in sustainability.



SUSTAINABLE PURCHASING

SLCC is committed to Environmentally Preferred Purchasing (EPP) best practices. We strive to be sustainable in our purchasing of supplies, appliances, and materials.

Current Strategies

SLCC does not currently have a set sustainable purchasing policy. The college does purchase recycled paper and printer cartridges where possible and recycles or reuses materials as best as they can.

The requirements of the High Performance Building Standards (2021, February 23) used for new construction include the purchase of life cycle reviewed energy efficient materials including Energy Star rated products and others.

Recommended Strategies

SLCC should update their purchasing portal, SLCCBuy, to include a sustainable products page where departments can choose to buy from.

There are many sustainable certifications that SLCC needs to require for purchasing products. These include Energy Star, Electronic Product Environmental Assessment Tool (EPEAT) for electronics, and Green Seal for custodial products. Many additional certifications for review are available for a multitude of products.

SLCC ought to buy local products and encourage our vendors to do so as well to support our local businesses and community.

REFERENCES

- "Design Requirements." (2021, February 2). Utah Division of Facilities Construction and Management. Available from https://dfcm.utah.gov/wp-content/uploads/02.02.21-design_requirements.pdf#page=45
- "High performance building standard." Division of Facilities Construction and Management. (2021, February 23). Retrieved March 23, 2022, from <https://dfcm.utah.gov/energy-efficiency-program/high-performance-building-standard/>
- "Justice, Equity, Diversity and Inclusion for Social Transformation (JEDI4ST) (2022). Salt Lake Community College. Available from <https://www.slcc.edu/inclusivity/equity-diversity-and-inclusion-research-and-scholarship.aspx>.
- "R470, general education, common course numbering, lower-division pre-major requirements, transfer of credits, and credit by examination (2020). Utah System of Higher Education. Available from <https://ushe.edu/ushe-policies/r470-general-education-common-course-numbering-lower-division-pre-major-requirements-transfer-of-credits-and-credit-by-examination/#:~:text=R470%2D6.,of%20the%20institutions'%20unique%20missions.>
- "Recycling Operations Timeline." (2013). Salt Lake Community College Facilities Services Recycling. Retrieved from <https://i.slcc.edu/facilities/departments/recycling-history-at-slcc.pdf>
- "US Selected Significant Climate Anomalies and Events for 2020." (2021). National Climate Report. National Centers for Environmental Information. National Oceanic and Atmospheric Administration. Available from <https://www.ncei.noaa.gov/access/monitoring/monthly-report/national/202013>
- "Your Community College: SLCC Strategic Plan 2016-2023." (2016). Salt Lake Community College. Available from <http://www.slcc.edu/plan/>

