

SUSTAINABILITY REPORT

PROGRESS REPORT TRACKING
2019-2024

COLORADO SCHOOL OF MINES PUBLISHED A FIVE-YEAR STRATEGIC SUSTAINABILITY PLAN IN LATE 2019 JUST PRIOR TO THE PANDEMIC IN 2020. THIS REPORT GIVES PROGRESS TOWARD THOSE GOALS OUTLINED IN THAT PLAN.



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TABLE KEY

-  Completed
-  In Progress
-  Delayed/On Hold

BUILT ENVIRONMENT

STATUS GOALS & OBJECTIVES













COMMENTS

	Power 5% of buildings with renewable energy	Installed more than 1.5 MW of solar in 2022
	Increase the efficiency of heating and cooling plants	Work completed through Energy Savings Performance Contract
	Use an Energy Performance Contract to achieve energy and water savings	EPC renewed in 2021 for 3 years
	Use USGBC LEED design for new buildings	14 LEED certified buildings on campus, including 2 LEED Platinum
	Develop Sustainable Community Plan for Mines Park	Design plan completed and discussions with developer underway
	Partner with Academia and Research to design and maintain Mines Park	Met with academia/researchers on project
	Explore using EPA Energy Star Portfolio Manager software and report data to CEO	Completed 2022
	Install a solar garden at Mines Park	Feasibility study and design completed as part of student design project
	Seek and apply for energy efficiency research grants	Applied for a DOE EE grant in 2021 and 2022
	Create an energy resiliency plan to evaluate campus growth, explore low carbon energy sources	Discussion began on net zero campus strategies and how to integrate into research
	Explore getting one campus building WELL BUILDING certified	Delayed due to pandemic
	Develop process for converting kitchen oil to biodiesel	Will propose as Capstone design project
	Explore the Second Nature Carbon Credit Offset program	Delayed due to pandemic

TRANSPORTATION

STATUS GOALS & OBJECTIVES

















COMMENTS

	Increase campus use of electric fleet vehicles	Two EVs added for parking services and electric bikes for some departments
	Create a sustainable commuter program for faculty and staff	ECO Passes now available for faculty and staff
	Increase the number of electric-vehicle charging stations on campus	Mines has 10 dual port EVCS
	Increase the number of parking spaces wired for electric vehicle charging stations on campus	New buildings at Mines will have 20% spaces wired to accommodate future EV stations
	Develop a parking space finder app to reduce emissions from cars searching for parking	Students developed an app and installed solar monitoring devices of parking lots; Exploring expanding to additional lots in 2023
	Develop a Travel Carbon Offset Program	Met with student government to discuss fees for offsets; Discussions on-going with academia and research departments
	Create a bike friendly campus and work with City of Golden on bike plan	Faculty, students, and staff provided feedback on City of Golden's new bike master plan
	Reduce greenhouse gas emissions for vehicles identified as special use	
	Track fuel consumption in fleet vehicles to identify additional conservation measures	
	Develop an enforceable idling policy for fleet vehicles	
	Purchase commuter carbon offsets	
	Implement a bike-share program	Program was discontinued by vendor due to special bikes needed for hilly terrain and small city population

CULTURE & ENGAGEMENT

STATUS GOALS & OBJECTIVES










COMMENTS

	Create campus sustainability culture and engage new students and staff on sustainability	On-going activities and programs, including People.Power.Planet campaign
	Create centralized sustainability communications plan and products	Created website, newsletter, and other communications materials including sustainability starter kit online
	Actively engage students on the Green Team	Meeting weekly with Green Team
	Add interpretive signs to the LEED certified buildings	Completed except for Platinum buildings (new)
	Create Green Labs and Green Office programs	Completed
	Host solar challenge competition and announce winners on Earth Day	We host annual solar challenges; winners are announced on Earth Day
	Host annual Earth Day Fairs	We host annual Earth Day Fairs
	Use Green Move-In/Move-Out campaigns to engage students	Created Green Move-In Guide distributed to students by Residence Life; Engage students through campaigns
	Expand co-curricular activities such as sustainability themed events and speakers	We host sustainability themed events; partnered with Residence Life on Environmental Justice Themed Community
	Provide financial and consulting support to student sustainability related events	Sustainability Office provides financial support to events and serves as faculty advisor to Green Team
	Develop Mines Park Sustainable Community	Design completed and contract awarded to developer; project on hold
	Make Princeton Review's Green Schools List	We were included in their 2022/2023 Green Schools List
	Use the sustainability committee to help implement the sustainability plan	Members of the Sustainability Committee help to implement projects
	Implement some PAC12 sustainability measures into athletics department	Some measures such as recycling in the stadium and composting at tailgate parties were implemented; in discussion about reusable cups with team(s) logo(s)
	Increase use of Green Seal certified cleaning products	Pandemic health concerns put this measure on hold
	Add solar powered trash receptacles to Kafadar commons to engage during events	Put on hold due to pandemic and cost

WATER CONSERVATION

STATUS GOALS & OBJECTIVES

COMMENTS

	Develop a campus-wide water education program	Water conservation program and campaigns on-going through powerED and our Green Office and Green Labs programs
	Include low-flow water fixtures in campus design specifications	This is a requirement of our LEED buildings
	Conduct water infrastructure assessments to identify and improve water management	The assessment was done as part of the powerED program
	Reduce the use of potable water in grounds irrigation (excluding athletic fields)	The City of Golden does not have the infrastructure to meet the campus irrigation needs for non-potable water
	Review the controller settings for irrigation to determine if they can be dialed back	McKinstry installed irrigation controller settings during the first EPC in 2012. Most controllers are weather based systems that adjust water times based on actual real-time local weather conditions; some have flow monitoring to catch leaks or excessive usage. We will spot check in spring of 2023 to ensure they are still working properly.
	Develop partnership with academia to explore innovative technologies for water conservation	Will propose as a Capstone project
	Work with academia to account for all sources and uses of water (e.g., municipal, rainwater, condensate, greywater)	Will propose as student project
	Develop a joint Mines/City of Golden water resiliency plan	Mines has an Intergovernmental Agreement with City of Golden for future construction. However, we need to develop a water resiliency plan.
	Develop water measurement and usage standards for the campus	









ACADEMIC & RESEARCH

STATUS	GOALS	COMMENTS
	Inventory sustainability courses and research	We did this as part of AASHE STARS reporting process
	Increase sustainability learning opportunities	Several new educational courses and programs created
	Ensure the Capstone program gets sustainability project proposals and create Capstone program	We submit sustainability proposals annually created Sustainable Environments Design Studio (Capstone program)
	Apply for sustainability related research grants	We applied for several grants
	Promote Mines' sustainability story to attract students and faculty	Have promoted Mines sustainability story through articles, websites, reports, newsletter, etc.
	Provide funding to send faculty to sustainability conference or summit	Sponsored some faculty for conferences and workshop related to sustainability
	Use infrastructure and operations as living lab for applied student learning	We have partnered with them on several projects over the last few years
	Incorporate powerED program energy and water use database into some engineering courses	We have presented the database to several classes and some professors are using the database in their classes
	Increase the number of undergraduate and graduate sustainability courses, minors, and degrees	Adding a sustainability focus area to existing BSE degree program was easier to implement than creating separate degree program or minor
	Host workshop on sustainability for faculty	
	Adopt one or more sustainability learning outcomes that applies to entire student body	We looked into 101 course addition but the sessions are full
	Explore developing sustainability courses within each department	Pandemic put this effort on hold
	Convene a Sustainability research committee	Pandemic put this effort on hold
	Create an academic sustainability committee	Pandemic put this effort on hold

CAMPUS GROUNDS

STATUS GOALS

COMMENTS

	Explore building a greenhouse that can be used by students and campus grounds	Students now have a greenhouse at Mines Park; campus grounds has their own greenhouse for landscaping
	Design and build outdoor spaces that enhance student experience and reduce stress	Spruce Hall has an outdoor space designed to enhance student experience and reduce stress; Campus commons areas are used by students to reduce stress through various activities, including reading in hammocks
	Pilot a green cleaning project	Pilot was delayed due to health and safety concerns during pandemic
	Integrate sustainability into grounds maintenance	We purchased an electric leaf blower for grounds maintenance
	Use sustainable landscaping on grounds, including xeriscaping near walkways	We do use some xeriscaping on walkways and sustainable landscaping on new LEED buildings
	Complete a campus Environmental Impact Statement and use this to enhance Master Plan	Sustainability principles were integrated into the Master Plan, including sustainable development of open spaces to protect wildlife
	Inventory and track priority chemicals of concern used in campus cleaning and reduce exposure	Delayed due to pandemic
	Develop a green cleaning standard for the campus	Delayed due to pandemic

WASTE REDUCTION

STATUS GOALS










COMMENTS

	Set a waste reduction goal for all campus events and create zero waste events guide	Set goal to make all campus events zero waste by 2030; Zero waste guide posted online
	Increase the campus waste diversion rate	Waste diversion rate increased from 42% to 53% in 2022
	Compost waste from landscape	Quote for composting landscape services sent to Ground Management; Looking at fall 2023 to implement
	Identify waste reduction resources for labs	Completed through our new Green Labs Program
	Measure and increase waste diversion from construction waste	Construction contractors are required to recycle construction waste through reputable vendors; captured in LEED certification
	Create an event compost student volunteer group	Group created and assisted with composting for Homecoming, Prom, E-Days, etc.
	Decrease amount of e-waste disposal in metric tons	We sell working electronics at state auction and allow for reuse for faculty/staff
	Pilot energy efficient hand dryers in bathrooms to reduce paper towel waste	We added energy efficient hand dryers to bathrooms in the Student Center and Student Rec Center
	Increase the number of water bottle refill stations on campus to reduce plastic bottle waste	We added additional water bottle refill stations to buildings without them
	Provide recycling/composting training for faculty, students, and staff	We held workshops, sent out educational material, and put instructions on our website
	Develop a composting system for dining services	Dining Services is composting in the Student Center kitchens; We continue to work on solutions for Mines Market
	Research and pilot composting for academic kitchens	Started discussions with compost vendors and faculty
	Conduct regular waste audits	We have conducted waste audits of several buildings and Mines Market
	Identify methods and goals to reduce campus food waste	Some measures already taken by Sodexo (e.g., trayless dining), some educational materials and tabling done at main dining area; need to continue work in this area
	Create furniture and equipment reuse list for students, faculty, and staff online	We created a Teams furniture reuse list that is accessible to everyone on campus
	Use reusable to go containers	Pandemic health regulations delayed this project; waiting on new dishwasher with larger capacity
	Use standardized recycling bins throughout campus	We do standardize many of our bins in campus buildings; architectural design considerations preventing campuswide
	Have students develop an app to streamline hauler pickups	Will propose as Capstone project
	Investigate computer buy-back program	We spoke with vendor about their buyback program; data destruction security is roadblock
	Track and publish electronics usage by department	Delayed due to pandemic

FOOD & DINING

STATUS GOALS

COMMENTS

	Implement a composting program in the Student Center	We compost in the Student Center kitchen and bathrooms
	Students design a composting system for Mines Park	Students designed several composting systems; garden type implemented in 2020 until destroyed by snow storm; commercial composting services started in 2022
	Recycle cooking oil from dining services	We are using local vendor to recycle cooking oil; Bin located behind Student Center
	Reduce waste at athletic events	Green Team partnered with MAC to reduce waste at athletic events; some classes participated in Recyclemania's Game Day reduction competition
	Develop food waste app for campus meetings and events	App was created that notifies staff, faculty, and students about left-over food from meetings and other events
	Review Sodexo's sustainable purchasing policy and make necessary changes	We received an inventory spreadsheet on their sustainable purchasing policy for Mines as part of STARS review
	Continue to provide local and organic food in dining services	Sodexo has policy to purchase from local farmers
	Make nutritious food available to all students regardless of economic background	Our Blaster Basket food bank added a cooler with lettuce and other plant-based foods
	Introduce composting to Mines Market and conduct food waste audit	Students conducted food waste audit in 2019 as part of class; GFL surveyed loading dock location for compost dumpster and determined not suitable; Green Team held several Compost Sustainability Days at Mines Market with education table; Exploring in-kitchen compost vessel and new dishwasher with larger capacity
	Develop a campus composting service	City of Golden composting services contract changed; working with vendors on new service
	Develop a campus wide composting education campaign	Working with Compost Colorado on educational video; recruiting Eco-Reps; online content and print materials created but delayed by pandemic. Purchased campus composting manual from PLAN.
	Introduce compostable to go containers for Student Center cafeteria vendors	In progress
	Donate left-over food to local food bank	The campus local food bank is Blaster Basket
	Renew annual membership in Food Recovery Network	Membership was paused to focus on campus food bank

PLANNING

STATUS GOALS

COMMENTS

	Create funding mechanism to expand sustainability infrastructure (e.g. student green fee)	Operations and Construction fund most new infrastructure projects; We created a Green Fund that funds some projects (e.g., EV Charging Stations); Mines is mid-sized school so student fees would have to be larger than green fees at larger schools
	Continue to offer professional development funds to faculty, staff, and student workers	Several faculty members and students were given professional development funds for conferences and publications
	Develop and pilot sustainability trainings and workshops for staff	Have done some trainings with staff
	Fund student/faculty projects with Green Fund	Several student projects were funded
	Create annual report to benchmark progress	Annual report and progress reports on-going
	Develop nature-based stress reduction initiative for students (e.g., hikes, greenhouse, etc.)	Greenhouse built in 2021 that students continue to work on and use as well as indoor hydroponic garden; sponsor nature hikes
	Reduce staff commute carbon emissions by creating more flexible work schedules (e.g., hybrid work, remote work, etc.)	Many departments switched to remote and hybrid remote work during the pandemic and kept the same schedules after the pandemic (e.g., Purchasing Dept. is 100% remote; Eco-Passes issued for staff and faculty
	Conduct an annual anonymous survey that allows employees to give feedback on management	Mines did a campus-wide anonymous survey of staff and faculty and provided results to campus
	Create policies that support underrepresented groups on campus including creation of diversity & inclusion committee	Mines has a dedicated Diversity & Inclusion Program that creates policies for underrepresented groups
	Host a Sustainability Summit for students, faculty, and staff with speakers	We partnered with NREL to host a Net Zero Labs Forum in late 2022 with speakers; Campus tours were provided to staff, faculty, and some students; Townhall scheduled for fall
	Establish more regional and national sustainability partnerships	Mines Sustainability was invited to participate in the NREL Net Zero Lab Forum and the Global Futures Initiative (national and regional members)
	Support planning of sustainable events across campus	Support planning of large events on campus and created Green Events guide for smaller events
	Achieve AASHE STARS Gold or Platinum rating and publicize ratings	Achieved STARS Silver in 2021; Gold rating gap analysis conducted for 2025 renewal
	Host or support a formal body through which external stakeholders can have a voice	Mines and City of Golden now have an Intergovernmental Agreement that allows stakeholders to provide feedback
	Incorporate sustainability into the University Strategic Plan and Master Plan	Sustainability principles are incorporated into the Strategic Plan and Master Plan
	Define standards for sustainable purchasing and integrate into vendor guidelines by 2025	Working with Purchasing Department on Sustainable Purchasing Policy
	Offer sustainable purchasing options in vendor contracts	Working with Purchasing Department on Sustainable Purchasing Policy
	Increase accessibility to the Sustainability Office by students, faculty, and staff by establishing a Sus Center in centralized location	Moved office closer to Student Center in middle of campus
	Create a student work study program to hire Eco-Reps to help with education and outreach	Pilot programs started and under development
	Make campus smoke free	Campus was converted to designated smoking areas only

PLANNING continue

STATUS GOALS

COMMENTS



Ensure campus has occupational health and safety plan

EHS provides occupational health and safety consulting services and training for staff and resources on their website



Environmental sustainability serves as guiding principle in decision making and planning

Environmental sustainability is one of many guiding principles for campus growth but not the only one



Expand sustainability training for managers

Some training provided but need to develop formal plan



Establish an alumni sustainability committee

Several former students and staff expressed interest in participating in the committee; Project underway



Increase the amount of sustainable investments and investment opportunities

Spoke to HR about adding the new S&P 500 Sustainability Index funds as an option for retirement investing; Investment panel having discussions



Integrate sustainability objectives into employee performance plans

Need to meet with HR about this one



Work with departments to develop department specific sustainability plans

Need to work on this now that we have campus-wide sustainability plan



Explore a living wage and affordable housing initiative for employees

Need to meet with HR about this one

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PROGRESS REPORT TRACKING
2019-2024

COLLABORATION • INCLUSION • EXCELLENCE • ENGAGEMENT • LEADERSHIP • INNOVATION

WE, THE COLORADO SCHOOL OF MINES COMMUNITY, ARE UNITED BY OUR COMMITMENT TO OUR TIMELESS MISSION OF EDUCATING AND INSPIRING STUDENTS FROM ALL BACKGROUNDS AND ADVANCING KNOWLEDGE AND INNOVATIONS, WITH THE ASPIRATION THAT OUR GRADUATES, IDEAS, ACTIONS AND INNOVATIONS WILL HAVE A TRANSFORMATIVE IMPACT ON INDIVIDUALS AND SOCIETY, LEADING TO SHARED PROSPERITY AND SUSTAINABLE USE OF THE EARTH'S RESOURCES.



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