

Introduction

Universities are uniquely poised to develop a sustainable world through their operations and through their ability to create and transfer knowledge to our students and our community.

Sustainability is a pluralistic approach to ensuring human and ecological health, social justice, secure livelihoods, and a better world for all generations. At a university, this requires that every aspect of campus operation contribute to improving the institution's environmental, social, and economic performance. In fulfillment of its charge to coordinate and sustainability activities across campus, the Campus Sustainability Advisory Council and the MSU Sustainability Office have collaborated with stakeholders from across Montana State University and the local community to develop this plan.

Mission

Montana State University, the State's land-grant institution, educates students, creates knowledge and art, and serves communities, by integrating learning, discovery, and engagement.

Goals

As steward of a land-grant institution, MSU will responsibly manage its human, physical, economic and environmental resources in an open and sustainable manner.

This Sustainability Plan benchmarks where Montana State University is with respect to several distinct yet overlapping sustainability categories, set goals for the future and kick-start implementation of progress toward these goals in each category.

Areas of Intentional Focus and Goals

The Areas of Intentional Focus are the most important places for CSAC to focus in the next three to seven years to fulfill our mission and vision. They are not the only things we will do, but they are the areas that we need to prioritize at this time if we are to move in our strategic direction. Goals lend further specificity by describing the specific outcomes we hope to achieve in each Intentional Focus.

Metrics and Actions

Metrics help us measure progress toward the goal, though they do not necessarily capture all of the aspirational or qualitative dimensions of a goal. Actions define the concrete steps that must be taken at the institutional level, at a minimum, to be successful in each goal.

INTENTIONAL FOCUS 1: Prepare students to understand and address sustainability challenges through academic experiences

Montana State University
DRAFT Sustainability Plan

One of the primary functions of colleges and universities is to educate and empower students. By training and educating future leaders, scholars, workers and professionals, MSU will prepare students to understand and address sustainability challenges. By researching sustainability issues and refining theories and concepts, MSU will continue to help to contribute to the understanding of sustainability challenges and development of new technologies, strategies, and approaches to address those challenges.

GOAL 1.1: Increase the number of course offerings with a focus on sustainability

METRICS and ACTIONS

1. The number of course offerings with a focus on sustainability will increase from 13% to 25% in 5 years.
2. Improve data collection and reporting methods to better track these courses.
3. Provide faculty incentives for the development of sustainability courses.
4. See above goal to create a professional development course.
5. Ensure all freshmen seminar courses incorporate sustainability curriculum content.

GOAL 1.2: Increase the number of degree programs with sustainability related learning outcomes.

METRICS and ACTIONS

1. The number of degree programs with sustainability related learning outcomes will increase from 80% to 100% in 5 years.
2. Develop and implement a Sustainability Literacy Assessment for campus.
3. Increase the number of graduates from programs with sustainability learning outcomes.
4. Include specific language regarding sustainability in the MUS Core Curriculum and departmental learning outcomes.
5. Increase the opportunity for immersive learning experiences for sustainability.
6. Capture and record existing programs.

GOAL 1.3: Place a greater emphasis on research related to sustainability issues and encourage student involvement in those efforts.

METRICS and ACTIONS

1. Increase the percentage of MSU departments engaged in sustainability related research from 59% to 100% in 5 years.

Montana State University
DRAFT Sustainability Plan

2. Improve data collection and reporting methods to better track sustainability related research.
3. Continue to increase support (financial and other) for interdisciplinary sustainability related research in alignment with MSU Strategic plan Goal 1.2.2
4. Increase awareness of sustainability related research.
5. Support the dissemination of student research on sustainability.
6. Support an increase in interdisciplinary graduate programs.
7. Increase library support for sustainability research and learning.
8. Develop research guides, materials selection policies and practices, curriculum development efforts, sustainability literacy promotion, and/or e-learning objects focused on sustainability.

INTENTIONAL FOCUS 2: Improve engagement opportunities on campus and with the public related to sustainability

Engaging in sustainability issues through co-curricular activities allows students to deepen and apply their understandings of sustainability principles. We will increase MSU-sponsored cocurricular sustainability offerings and will help integrate sustainability into the campus culture and inspire action.

GOAL 2.1: Expand peer educator programs available to all students, faculty and staff.

METRICS and ACTIONS

1. Develop new peer educator programs both inside and outside of Residence Life.
2. Support consistent professional development courses for faculty and staff.
3. Develop sustainability centered networking opportunities for faculty.
4. Develop a mechanism for assessing sustainability culture on campus.
5. Catalyze campus engagement through student and employee orientation programs and materials focused on sustainability and sustainable living.
6. Increase communication with the campus community and awareness of sustainability efforts.
7. Maintain regular coverage in The Exponent and other news sources.
8. Increase signage highlighting green building and sustainable grounds features.
9. Create a sustainability newsletter via listserv.

Montana State University
DRAFT Sustainability Plan

10. Regularly publish/maintain an online sustainability report.
11. Develop a sustainability dashboard for campus.
12. Embed recognition for sustainability efforts in existing award systems (e.g. Employee Recognition Awards) for students and employees.
13. Develop a calendar of sustainability themed months and potential competitions.

GOAL 2.2: MSU will contribute toward community sustainability through increased intercampus collaboration, engagement with external networks and organizations, and public policy advocacy.

METRICS and ACTIONS

1. Improve tracking of and opportunities for sustainability centered community service.
2. Develop sustainability certificate/badging program(s) through continuing education.
3. Develop a regular lecture/seminar series dedicated to sustainability.

INTENTIONAL FOCUS 3: MSU will make a concerted effort to address sustainability needs throughout all of its operational functions.

GOAL 3.1: MSU will reduce its air pollutant and greenhouse gas emissions in order to positively impact the health of the campus community, as well as the health of our local communities and region.

METRICS and ACTIONS

1. Regularly assess and report Scope 1, Scope 2, and Scope 3 GHG emissions for MSU facilities and activities.
2. Update MSU's Climate Action Plan and set new objectives by August 2021.
3. Become a signatory of the Paris Climate Agreement "We Are Still In" declaration.
4. MSU Engineering & Utilities department will develop a carbon neutrality plan for Scope 1 and Scope 2 electricity and natural gas by December 2020, with input from a CSAC-approved liaison. This plan will take into consideration the current utility consumption as well as efficiency, renewable energy, and fuel switching opportunities. A preliminary review indicates the following goals and respective costs.
 - a. Interim goal of carbon neutrality for electric load by 2035. This will require an investment of between ten to fifteen

Montana State University
DRAFT Sustainability Plan

million dollars to implement efficiency and renewable energy projects. The monetary savings in utility procurement and operational costs are between one and one half million dollars each year.

- b. Interim goal of carbon neutrality for natural gas by 2050. This will require an additional investment of approximately 50 million dollars to implement efficiency projects, complete a major renovation of the heating plant, and eliminate other natural gas use at buildings. This results in an annual utility procurement cost increase of approximately one million dollars due to fuel switching.

GOAL 3.2: MSU will design, build, and maintain buildings that pursue innovative strategies to balance the imperatives of cost-effectiveness, health and safety, and minimizing the building's environmental footprint.

METRICS and ACTIONS

1. Design all new building construction and comprehensive renovation projects to LEED Gold or equivalent high-performance building standards.
2. Apply integrated design processes.
3. Explore innovative design standards for campus (e.g. Living Building).
4. Maintain and operate the campus to highest practical sustainability standard that considers social, ecological, and environmental impacts.

GOAL 3.3: MSU will implement efficiency and conservation measures and increase its use of renewable sources of energy to reduce economic expenditures over time.

METRICS and ACTIONS

1. Increase the supply of energy from on-campus and off-campus renewable sources with a target of MSU obtaining 100% of energy from such sources. This will include:
 - a. Review opportunities for large scale photovoltaic projects
 - b. Explore increased "greening" of utility purchases
 - c. Fuel switching from natural gas to electricity
2. Reduce energy consumption across campus. This will include:
 - a. Implement utility management and accounting software
 - b. Implement interior lighting retrofits for all buildings
 - c. Design and build new buildings to highest possible standard and for the lowest possible resource use
 - d. Pursue deep energy and mechanical system upgrades during major building renovations

Montana State University
DRAFT Sustainability Plan

- e. Encourage departments to implement human-centric measures
- f. Expand campus energy districts
- g. Continue water conservation projects
- h. Encourage labs and research to reduce energy and resource use

GOAL 3.4: MSU will use its food purchases to support local economies; encourage safe, environmentally friendly and humane farming methods. MSU Culinary Services will also support sustainable food systems by reducing food waste and diverting materials from the waste stream, by making low impact dining options available and by educating its customers about more sustainable options and practices.

METRICS and ACTIONS

1. Increase local food purchases from 24% to 30% by 2026.
2. Improve tracking of all food waste from Culinary Service operations in order to better understand specific sources and quantities (eg, kitchen prep waste, non-recoverable pre-consumer waste, post-consumer waste).
3. Use food waste tracking data (including waste audits) to educate the MSU community on food waste reduction behaviors.
4. Reduce pre and post-consumer food waste by 3% per year for five years.
5. Continue to improve tracking and reporting of food purchases to reflect STARS requirements.

GOAL 3.5: Beautiful and welcoming campus grounds will be planned, planted, and maintained while minimizing the use of chemicals, protecting and restoring wildlife habitat, and conserving resources.

METRICS and ACTIONS

1. Maintain Bee Campus and Tree Campus certifications.
2. Develop and improve awareness of sustainability efforts on campus grounds, using explicit signage when it can be implemented without interfering with landscape maintenance.
3. Implement grounds management practices that maximizes the use of ecological preferable materials rather than the use of inorganic fertilizers and chemical pesticides, fungicides and herbicides in favor of ecologically preferable materials.
4. Close the loop for management for organic materials generated on campus.
5. Assess campus landscapes and properties for resilient and sustainable ecosystem management.

Montana State University
DRAFT Sustainability Plan

6. Conduct an assessment or assessments to identify environmentally sensitive areas on institution-owned or – managed land.

GOAL 3.6: As permitted by state law and other guidance, MSU will choose environmentally friendly and socially just products and services and support companies with strong commitments to sustainability.

METRICS and ACTIONS

1. Improve reporting and tracking methodology to capture sustainable purchasing records for electronics, cleaning and janitorial products, and office paper across campus.
2. Develop a campus wide sustainable purchasing policy applicable to all departments and all purchases.
3. A stated preference for post-consumer recycled or bio-based content or to otherwise minimize the negative environmental impacts of products and services.
4. A stated intent to support disadvantaged businesses, social enterprises and/or local small and medium-sized enterprises (SMEs) or otherwise support positive social and economic impacts and minimize negative impacts.
5. A 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).
6. Require all applicable electronics to be EPEAT certified.
7. Require all janitorial and cleaning supplies to be third-party certified, pursue universal adoption of recycled trash bags by 2025.
8. Require all paper purchases to contain post-consumer recycled content and/or FSC certified content.
9. Choose vehicles meeting the Corporate Fuel Economy (CAFÉ) Standards as defined in 2-17-415, MCA, whenever possible during the State's Fall Vehicle bid.

GOAL 3.7: MSU will develop and support sustainable transportation systems by increasing the availability and functionality of multimodal transportation options, reducing the greenhouse gas emission from transportation related burning of fossil-fuels and promoting sustainable transportation on campus and in the community.

METRICS and ACTIONS

1. Develop a target and an implementation strategy for reducing Scope 1 GHG emissions from campus

Montana State University
DRAFT Sustainability Plan

transportation systems by December 2020, working in consultation with the Campus Transportation Advisory Committee and other campus and community stakeholders. Among other elements, the plan will include attention to the need to:

- a. Transition to a 100% alternative fuel and electric MSU vehicle fleet including the installation of infrastructure necessary to support both public and private usage of those vehicle types.
 - b. Reduce the number of single-occupancy vehicle trips with the advancement of active and sustainable transportation options through creative/innovative solutions, community partnerships, and representation on boards and committees.
 - c. Ensure necessary staff and financial resources to support collaborative transportation planning and management
2. No net increase in parking spaces on University owned property throughout all current and future development plans and projects.
 3. Update/Revise a flexible work policy (e.g. telecommuting, condensed work week, peak spreading, RideAmigos).
 4. Achieve Gold Bicycle Friendly University certification.
 5. Create a process for the collection, assemblance, and reporting of data relating to active and sustainable transportation to help develop data-driven solutions through programs and policies.
 6. Conduct an annual pop-up project (E.g. traffic calming, pedestrian wayfinding...) on campus to promote human-centered transportation design opportunities.
 7. Establish an on-campus bike center as part of the new wellness facility at MSU to serve students, faculty, and staff to include bicycle programs, lockers, showers, and repair station/shop.

GOAL 3.8: MSU will move toward zero-waste by reducing, reusing, recycling, and composting.

METRICS and ACTIONS

1. Increase waste diversion rates on campus by from 22% to 95% by 2040.

Montana State University
DRAFT Sustainability Plan

- a. Increase the extent of campus recycling and develop a campus recycling policy.
 - b. Increase the extent of campus composting and develop a campus composting policy.
 - c. Incorporate composting into facilities operations.
 - d. Develop a Waste Diversion Coordinator position with Facilities Services.
 - e. Develop a Terracycle® program for difficult to recycle items.
 - f. Develop a policy that all single use items must be recyclable or compostable.
2. Reduce total waste produced on campus
 - a. Reduce the number of single use items on campus.
 - b. Encourage departments and buildings to perform regular waste audits.
 3. Increase construction demolition waste diversion to 100%.

GOAL 3.9: MSU will continue conserving water, protecting water quality, and treating water as a resource.

Note: MSU works with the City of Bozeman to track all water reductions. Together, MSU and the City of Bozeman have instituted a water impact fee credit system based on MSU's proven track record of reducing water use in existing and new buildings.

METRICS and ACTIONS

1. Reduce water consumption by approximately 15% overall from the 2020 use or approximately 20 million gallons per year by 2035.
 - a. Continue with building retrofits that increase water efficiency including faucet aerators, flush valve replacement and toilet and urinal replacements.
 - b. Reduce outdoor water consumption by addressing the potable water sources used for irrigation at the Quads.
 - c. Convert all hand watered areas in Family Grad Housing to automatic, evapotranspiration-based irrigation.
 - d. Select plants and turf types to minimize dependency on supplemental water.
 - e. Continue collaboration with the City of Bozeman developing comprehensive rainwater management policies, stormwater management and plans or guidelines that incorporate green infrastructure, and encourage the use of LID practices for all new construction, major renovation, and development projects.

Montana State University
DRAFT Sustainability Plan

- f. Implement water management benchmarking tools.

INTENTIONAL FOCUS 4: Sustainability considerations will be made in all planning and administrative decisions.

GOAL 4.1: MSU will continue institutionalizing sustainability by dedicating resources to sustainability coordination, developing plans to move toward sustainability, and engaging students, staff, faculty, and community stakeholders in governance.

METRICS and ACTIONS

1. Report annually on the MSU Sustainability Plan in accordance with the MSU Strategic Plan Goal 3.3 Metric 6.
2. Review and update the MSU Climate Action Plan to align with the MSU Sustainability Plan goals and objectives and reflect new opportunities to reduce greenhouse gas emissions.
3. Create policies and procedures to identify and engage external stakeholders (i.e. local residents) in land use planning, capital investment projects, and other institutional decisions that affect the community.
4. Identify policy barriers (State, OCHE-Montana, MUS, and MSU) to achieving sustainability plan goals.

GOAL 4.2: MSU will continue advancing diversity and affordability on campus by opening doors to opportunities that can help create a more equitable world and are open through affordable programs accessible to all regardless of race, gender, religion, socio-economic status and other differences.

METRICS and ACTIONS

1. Support the goals and objectives in the MSU Diversity and Inclusion Framework.
2. Increase education and outreach on issues of social sustainability and the importance of social equity in sustainability.

GOAL 4.3: MSU will bolster the strength of its community by offering benefits, wages, and other assistance that serve to respectfully and ethically compensate workers and by acting to protect and positively affect the health, safety and wellbeing of the campus community.

METRICS and ACTIONS

1. 100% of employees receive at or above a living wage (including benefits).
 - a. As an institution, make a formal commitment to living wages, including student employees and/or graduate teaching/research assistants.

Montana State University
DRAFT Sustainability Plan

2. Regularly conducted a survey or other evaluation that allows for anonymous feedback to measure employee satisfaction and engagement.

GOAL 4.4: MSU will make investment decisions that promote sustainability.

METRICS and ACTIONS

1. Create a Committee on Investor Responsibility comprised of multi-stakeholder representation including MSU faculty, staff, and students, and members of the MSU Alumni Foundation Board of Governors with the mission of making recommendations to fund decision-makers on socially and environmentally responsible investment opportunities across asset classes