

COLBY COLLEGE SUSTAINABILITY ACTION PLAN

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LIST OF ACRONYMS

Term	Definition
AASHE	Association for the Advancement of Sustainability in Higher Education
ACUPCC	American College and University Presidents Climate Commitment
BAS	Building Automation System
BIPR	Bias Incident Prevention Response
CARE	Colby Alliance for Renewable Energy
COFGA	Colby Organic Farmers and Gardeners Association
CSA	Community Supported Agriculture
EAG	Environmental Advisory Group
ECM	Energy Conservation Measure
EnviroCo	Environmental Coalition
EPA	Environmental Protection Agency
EPEAT	Electronic Product Environmental Assessment Tool
EUI	Energy Use Intensity
EV	Electric Vehicle
FSC	Forest Stewardship Council
IBEAM	Indoor Air Quality Building Education and Assessment Model
IPM	Integrated Pest Management
LEED	Leadership in Energy and Environmental Design
LEED O+M	LEED for Operations and Maintenance
LEV	Low Emission Vehicle
PM	Preventive Maintenance
REC	Renewable Energy Credit
SAP	Sustainability Action Plan
SFI	Sustainable Forestry Initiative
SLC	Sustainability Leadership Council
STARS	Sustainability Tracking, Assessment, And Rating System

INTRODUCTION

A primary goal of a liberal arts education is to develop broadly enlightened individuals prepared to become leaders and innovators who will solve problems and endeavor to make the world a better place. At Colby we recognize that global climate change, pollution, environmental degradation, and loss of biological and ecosystem diversity are key challenges of our times. Colby seeks to lead by example to foster morally responsible environmental stewardship through education, conservation, and conscientious policies and procedures. Campus sustainability and resource conservation are among the core values of the College, which help shape Colby's vision for the future. Environmentally safe practices inform and guide campus strategic planning, decision-making, and daily operations.

In keeping with these values, Colby formed the Environmental Advisory Group (EAG), a working group comprised of students, faculty and staff, to advise the president and the College community on issues related to environmental stewardship including sustainability, conservation, and alternative energy. Since its founding in 2001, the EAG has proven successful at conceiving, evaluating, recommending, and helping implement an array of ambitious green initiatives. With the support of the EAG, Colby committed to reduce emissions of greenhouse gases by signing the State of Maine Governor's Carbon Challenge in 2005, and the American College and University Presidents Climate Commitment (ACUPCC) in 2008. In 2010 Colby developed a climate action plan and committed to an ambitious goal of becoming carbon neutral by 2015.

Colby pursued this goal aggressively, investing in energy efficiency projects, installing renewable energy technologies in several campus buildings, and converting the central heating plant to a biomass facility that uses locally sourced waste wood as the primary fuel. Together, these initiatives allowed Colby to achieve carbon neutrality in 2013, two years ahead of schedule. We now look to continue Colby's long-standing commitment to environmental stewardship by adopting a broad approach to sustainability that recognizes personal and institutional responsibilities for reducing our impact on the local and global environment.

Overview and Process

The Sustainability Action Plan (SAP) was developed by the Office of Sustainability and the EAG. Ad-hoc subcommittees of the EAG focused on specific subject areas and aimed to increase participation of faculty and staff representing academic, administrative, and operational divisions across campus.

The SAP structure is based on the Association for Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking and Reporting System (STARS) requirements. STARS is the most widely recognized framework for colleges and universities to measure, track, and report their sustainability performance. It takes a comprehensive approach to sustainability in higher education, with participants reporting their accomplishments in the four core areas of academics, engagement, operations, and planning and administration.

The STARS rating defines measurable objectives and allows us to benchmark progress internally and against peer institutions. Structuring the SAP around STARS affords us a common language for sustainability objectives and ensures that Colby's efforts are aligned with the broader trends and goals in higher education. At the same time, this framework provides the flexibility for Colby to continue to serve as a leader in sustainability and undertake bold initiatives.

The Sustainability Action Plan is intended to guide the College's sustainability-related initiatives over the next ten years. The plan is organized into the three areas of Academics, Administration and Planning, and Operations. Within each of these are related topics and corresponding goals. Some initiatives in these areas overlap or are shared due to the level of coordination and integration needed for their successful development, funding, and implementation. To allow for flexibility, goals have been classified as either short-term or long-term. The timeline for short-term goals is one to five years, and 10 years for long-term goals. As opportunities arise, the timing of specific initiatives may change. To account for this, and ensure that the plan stays current with campus goals and achievements, the Sustainability Action Plan will be reviewed annually and revised every three years.

ACADEMICS

Sustainability in Academic Course Work

Sustainability is a strategic priority of the College and is fundamental to a liberal arts education. Colby has extensive sustainability-related course offerings and utilizes the campus as a living laboratory for learning about renewable energy, building design, ecology, biology, and more. The interdisciplinary Environmental Studies program offers majors in Environmental Science, Policy, or Computation, as well as an Environmental Studies minor. Further, Colby has relationships with many state and regional organizations that allow students to apply classroom teachings to real-life laboratories at the Bigelow Laboratory for Ocean Science, the Maine Lakes Resource Center, Jackson Laboratories, Allen Island, and the Herring Gut Learning Center.

- Short-term goals:
 - Expand curricular offerings in environment/sustainability across campus disciplines.

Community Engagement and Student Research

Colby provides internship opportunities and funding for student research through several sources including the Environmental Studies department, the Goldfarb Center for Public Affairs and Civic Engagement, and DavisConnects. Outside of the classroom, students engage with sustainability through the EcoReps program. EcoReps serve as peer educators, engaging their peers and promoting sustainability in student life.

- Short-term goals:
 - Create more experiential opportunities in the local environment through existing campus partners such as the Buck Environment and Climate Change Lab and Bigelow Labs. Explore opportunities to develop additional partnerships that would provide experiential learning.
 - Increase opportunities for global involvement in environmental studies and practice by promoting off-campus study and research opportunities through DavisConnects.
 - Increase sustainability-related civic engagement activities and identify additional partners and opportunities for civic engagement.

- Create more opportunities to use the campus as a living laboratory through increased collaboration between Facilities Services and faculty. Faculty and staff can work together to identify course projects that benefit campus operations and the academic mission.

Sustainability Literacy Measurement and Performance

Colby administers a Sustainability Literacy Assessment to all first-year students upon entry and seniors upon exit to measure what students have learned in their years at Colby.

- Short-term goals:
 - Continue to disseminate and analyze the Sustainability Literacy Assessment to graduating seniors and incoming students.
 - Improve scores; compare respondents' reported behavior to their sustainability literacy as measured by the survey.
 - Administer survey to faculty and staff every two years.
 - Review and revise the survey every two years to ensure it remains relevant and captures useful information.

ADMINISTRATION AND PLANNING

Student Sustainability Involvement

Colby has a number of student groups related to sustainability, including Environmental Coalition (EnviroCo), Colby Alliance for Renewable Energy (CARE), Colby Organic Farmers and Gardeners Association (COFGA), Colby Beekeepers, and Environmental Educators. The EcoReps are a group of student employees who promote sustainability in everyday student life. Colby has offered a Green Building JanPlan course and two LEED Green Associate trainings per year.

- Short-term goals:
 - Formalize student involvement in sustainability planning by establishing a student Sustainability Leadership Council (SLC) that brings together all the environmentally focused student clubs to identify ways to work together.

- Evaluate options for ongoing education about sustainable built environments including buildings, landscaping, and land use. Consider partnerships with local design professionals.
- Long-term goals:
 - Encourage behavioral change by installing dashboards in campus buildings and/or online that will allow residents to see real-time energy use. Install meters as needed to support this initiative.

Staff and Faculty Engagement

According to an audit of faculty research pages conducted during the summer of 2017, there are currently 73 faculty and staff formally involved in sustainability research. In the fall of 2013, the Office of Sustainability started a Green Office Certification program that aims to engage faculty and staff with sustainability in their office. Participants learn about and are recognized for implementing practices that can be adopted in an office environment to save energy and reduce waste.

- Short-term goals:
 - Provide sustainability-focused training to Colby faculty and staff; integrate a presentation summarizing Colby's sustainability commitments during new staff orientation.
 - Engage additional offices in the Green Office Certification program and increase certification level of the existing four certified offices.
- Long-term goals:
 - Integrate sustainability, a core value of the institution, into every new job description.
 - Develop and implement a Green Labs program that addresses energy conservation, water conservation, chemical use and disposal, materials management, and training for lab users on sustainable practices.

Diversity and Affordability

Higher education provides opportunities that can create a more just and equitable society. By ensuring these opportunities are available to all, Colby helps provide the foundation

needed for diverse communities to work together to address sustainability challenges, including social and environmental injustices.

Many of the initiatives in the Sustainability Action Plan support Colby's inclusivity and diversity goals. Providing alternative means of transportation helps eliminate the divide between those who can afford to have a car at college and those who cannot. A full range of transportation options ensures that all students can access the resources in our local community and participate equally in off-campus activities. Waste and food waste reduction efforts foster a culture that recognizes the scarcity of resources and does not take for granted relative wealth and abundance we are afforded here in the United States and at Colby. Similarly, energy management and procurement strategies recognize and respect our finite energy resources while reducing the negative environmental and social impacts of fossil fuel production

There are over 20 culture-themed clubs and organizations based in the Pugh Center for Student Diversity, Equity, and Inclusion. Additionally, there is a Student Government with elected representatives. The College has a Director of Equal Opportunity Employment to ensure the staff and faculty are also supported. The Office of Diversity, Equity, and Inclusion promotes these values as integral to all aspects of the campus community. There is also a Campus Climate Committee, chaired by the Dean of the College, to assess the experiences of the campus community and analyze how Colby can effectively create a meaningful inclusive and equitable community.. The Bias Incident Prevention Response (BIPR) Team is a resource for students, staff, and faculty to report bias incidents with the goal of mediation between the two groups, and not punishment. Additionally, Colby meets 100 percent of need-based financial aid and provides internship stipends to Ralph J. Bunche Scholars. Colby strives to support a diverse student body.

Socially Responsible Investing

Colby is committed to investing in our local community to create a sustainable economy in Waterville. In 2015, Colby forged partnerships to invigorate our downtown into a vibrant, pedestrian-friendly district. Projects are underway to house new businesses, a downtown arts center, retail, residences for students and faculty, and a boutique hotel. In 2015,

President Greene announced a partnership with CGI, an information technology company that plans to bring 200 high-tech jobs to downtown Waterville. This collaborative development is serving as a catalyst for further investments to revitalize downtown Waterville.

Land Development and Campus Planning

Colby has recently completed a framework plan for long-term development of the campus and is currently implementing it through major new construction and renovation projects. These include the expansion of Grossman Hall, which opened in the fall of 2017, a new Athletics Center and fields, which is in construction, and an Arts and Innovation Center currently in design. Additionally, Colby completed a mixed-use building, is in the planning stages of a hotel, and has purchased other property in downtown Waterville. The downtown projects are primarily redevelopment and infill and will contribute to community economic revitalization.

- Short-term goals:
 - Identify opportunities in the campus framework plan to implement best practices across all categories to ensure an effective, sustainable, and efficient land development strategy.
- Long-term goals:
 - Create long-term development goals that include a compact and environmentally sensitive development footprint.

OPERATIONS

Energy, Buildings, and Infrastructure

Energy Management

In 2015 Colby committed to an energy management goal of remaining energy neutral through fiscal 2021-22 using fiscal 2013-14 as a baseline. To date, Colby has achieved a seven percent reduction in weather-normalized energy use intensity (EUI) and reduced total weather-normalized energy consumption by two percent. This has been achieved during a period of campus growth that included additional building square footage, the renovation of older buildings, and a larger campus population. Each year, Facilities Services Operations

staff and the Office of Sustainability identify and implement energy conservation measures (ECMs) in existing campus buildings, landscape, and infrastructure. Completed projects include steam pipe insulation, conversion to LED lighting, irrigation sensors, installation of dual-flush toilets, and low-flow showerheads faucet aerators. Colby has successfully partnered with Efficiency Maine to earn incentives for projects that save electrical or thermal energy, helping to offset the cost and reduce the payback. Colby has several renewable energy systems on campus that help conserve energy and reduce our carbon footprint. These include the biomass-fueled heating plant, a rooftop solar array, and two geothermal systems.

- Short-term goals:
 - Using fiscal 2013-14 as the baseline, remain neutral in terms of energy use through fiscal 2021-22. Review progress on an annual basis.
 - Develop a comprehensive campus energy master plan that will quantify long-term energy savings potential and provide a framework for meeting future energy needs while remaining carbon neutral.
- Long-term goals:
 - Develop and implement a program that will recommission existing buildings to ensure they operate optimally and continue to meet changing programmatic needs.
 - Achieve the savings identified in the energy master plan.

Energy Procurement

The biomass plant produces 90 percent of the campus heating load and cogenerates approximately 1,000,000 kWh of electricity per year. The biomass fuel is low-grade waste wood, sourced within a 50-mile radius of campus. The wood must be harvested from a Maine Certified Tree Farm, through a Master Logger with a certified harvest plan, or under the guideline of the Sustainable Forestry Initiative (SFI) or Forest Stewardship Council (FSC). Natural gas is used to meet peak demand and as a backup fuel source for biomass. Renewable Energy Credits (RECs) account for 100 percent of purchased electricity. In the fall of 2017 a 1.8-megawatt solar array came online, which will provide 16 percent of Colby's current electricity needs through a power purchase agreement.

- Short-term goals:

- Evaluate electricity demand reduction strategies including load management and energy storage.
- Evaluate opportunities for additional solar energy, either through on-site solar or an additional power purchase agreement.

Carbon Offsets

Colby became carbon neutral in 2013 by implementing energy efficiency measures, switching to low-carbon fuels, employing renewable energy technologies, and by purchasing carbon offsets to balance the remaining emissions. Carbon offsets are purchased from projects around the world, and have included landfill gas capture, improved cook stoves, and forest conservation. The selected projects provide a range of environmental and community benefits that are aligned with the United Nations Sustainable Development Goals. Since Colby already purchases RECs for our electricity, heating fuels and College-related travel are our two largest sources of carbon emissions.

- Short-term goals:
 - Evaluate the carbon sequestration of the Perkins Arboretum and other woodland areas on campus.
 - Identify the most appropriate way to incorporate forest carbon sequestration in our carbon accounting.
- Long-term goals:
 - Reduce the total amount of offsets purchased.

Green Building and Landscape Standards

Colby currently has 15 LEED certified buildings, which account for 24 percent of the total building area. Additionally, LEED certification is underway for Grossman Hall, home of DavisConnects, and the new Athletics Center. Colby's green building standards currently require new construction and major renovation projects to achieve a minimum of LEED Silver certification. These projects must also meet all of the prerequisites of the SITES rating system, which is the certification program for sustainable landscape design.

- Short-term goals:
 - Continue to adhere to the Green Building standards.
 - Review and revise the standards every two years to remain current.

- Consider incorporating:
 - Minimum of LEED Gold.
 - Incentives for achieving stretch goals such as LEED Platinum certification.
 - SITES certification for new construction and major renovation projects as relevant.
 - Passive House, Living Building Challenge, and Net-Zero Energy Standards where appropriate and applicable.
 - Occupant education and engagement strategies.
 - Furniture, Fittings, and Equipment purchasing and disposal guidelines.

Preventive Maintenance

All of Colby's building systems and utilities are regularly maintained to prevent failures and ensure equipment longevity. The following goals will ensure that Facilities Services operations are aligned with best practice.

- Short-term goals:
 - Align preventive maintenance (PM) with LEED for Existing Buildings: Operations + Maintenance (LEED O+M) standards.
- Long-term goals:
 - Use the Environmental Protection Agency's (EPA) Indoor Air Quality Building Education and Assessment Model (IBEAM) to improve indoor air quality program and practices.

Water

Consumption, Conservation, and Runoff

From baseline year fiscal 2013-14, Colby is projected to save 10 percent of potable water due to the implementation of rain sensors, low-flow appliances, and Energy Star purchases. New projects typically achieve a 35 percent reduction in potable water use compared to plumbing code compliant water use. Colby has eight stormwater runoff locations that are maintained according to Maine Department of Environmental Protection standards.

- Short-term goals:
 - Use EPA WaterSense labeled fixtures in new construction and renovations.

- Long-term goals:
 - Meter and track potable water use at the building level to inform water conservation strategies.
 - Renew campus landscape to act as green infrastructure across campus to retain, filter and reuse rain and stormwater.
 - Calculate a natural water balance for the campus to assess the sustainability of our water withdrawals. Compare water use to a water budget based on precipitation, potential evapotranspiration, and campus/watershed area.

Landscape and Grounds

Landscaping and Biodiversity

Colby has worked to incorporate native and naturalized plants into landscaping practices to minimize water use and maintenance. The plant species support pollinators, and are selected to thrive in the local soil, moisture, and sunlight conditions. Additionally, pilot projects are underway to test the viability of natural turf management for the lawn areas on campus. Colby's green building standards currently require all new construction and major renovation projects to meet the prerequisites of the SITES rating system.

- Short-term goals:
 - Inventory endangered plant species and environmentally sensitive areas on campus.
 - Select native plant species that thrive in the local environment and support biodiversity.
 - Earn Tree Campus USA certification. This program requires Colby to do the following: establish a tree committee; develop and implement a campus tree care and management plan; dedicate annual expenditures for the tree care program; have an Arbor Day observance; and complete one tree-related service learning project annually.
 - Create a campus tree inventory using the USDA Forest Service's i-Tree or similar software that quantifies the benefits of campus trees including carbon sequestration, stormwater management, and building energy use reduction.
 - Identify areas to pilot porous and non-asphalt hardscape.
- Long-term goals:

- Map the impact that plants have on the environment (stormwater capture, CO2 absorption, etc.) and develop educational programming about the value of ecosystem services.
- Develop a comprehensive organic management plan for lawns and plantings.

Integrated Pest Management (IPM)

Colby developed a new IPM plan in 2017 focused on minimizing toxicity and use of pesticides. Colby Grounds also manages the Perkins Arboretum, which is protected land.

- Short-term goals:
 - Implement the new IPM plan, which does the following:
 - Defines campus landscape management zones.
 - Increases transparency around use and implementation of IPM plan on campus.
 - Prohibits use of 30 most common and toxic pesticides, herbicides and fungicides, including neonicotinoids.
 - Prohibits the use of pesticides and landscaping materials that use pesticides that harm pollinators.

Ice and Snow Removal

Colby is located within the Kennebec River watershed and in close proximity to Messalonskee Stream. Salt and other deicing agents can change aquatic environments, affect the local soil pH, and significantly stress trees. Colby has made an effort to reduce the impact of snow and ice removal on the watershed and local environment by selecting a non-toxic and biodegradable melting agent. The melting agent is also used only as a last resort.

- Short-term goals:
 - Develop a snow and ice removal policy that is compliant with LEED O+M standards.
 - Switch to an environmentally preferred deicing product.
 - Reduce area treated to by discounting the use of deicer in low-traffic areas.

- Create bioswales as appropriate that help with stormwater management and will hold snow. This helps manage the spring melt and reduces the height of snowbanks during the winter.
- Develop guidelines for snow disposal. Evaluate opportunities to use snow as thermal storage.

Custodial Services Cleaning Program

Colby Custodial Services purchases Green Seal Certified products whenever possible and has implemented a green cleaning program, which includes training and implementation, performance level standards, and housekeeping policies. Custodial Services currently purchases 74 percent Green Seal certified products. In addition to being environmentally preferable, the use of green cleaning products helps protect the health of building occupants and custodial staff.

- Short-term goals:
 - Continue campus-wide LEED compliant Green Cleaning Program. Review the policy annually to ensure the program continues to meet standards.
 - Source Green Seal items for all products except for disinfectant; identify and evaluate green-certified floor finish products.
- Long-term goals:
 - Achieve a minimum 90 percent purchase rate of green cleaning products.

Food and Dining

Food Purchasing and Sourcing

Colby's Dining Services are managed by Bon Appetit, a food service management company that offers organic, vegan, vegetarian, and locally sourced options. Local food is defined as coming from farms and businesses that are owned and operated in Maine, have less than \$5 million per year in gross profit, and are located within 150 miles of campus.

Seafood is harvested within 500 miles of Colby and is listed as either a Best Choice or Good Alternative under Monterey Bay Aquarium's Seafood Watch program. Milk and yogurt are from cows not treated with rBGH and eggs are certified cage-free by the Humane Farm Animal Care, Food Alliance or Animal Welfare Approved. Poultry is produced without the use

of antibiotics as a feed additive. Beef products are from cattle raised on vegetarian feed, never given antibiotics or hormones, and from ranches whose animal welfare practices are third-party verified. Other meats are raised without antibiotics as a first preference. Pork is raised without gestation crates, antibiotics, or growth promoters. In fiscal 2013-14, 33 percent of purchases were conventional animal products.

To combat climate change, Bon Appetit prioritizes plant-based proteins, works to avoid and reduce food waste, trim transportation needs, and decrease deforestation. Bon Appetit also supports farmworkers' rights as the first food service company to partner with the Coalition of Immokalee Workers, protecting tomato pickers in Florida. They work to educate consumers about conditions for farmworkers, empower farmworkers and set standards as an early member of the Equitable Food Initiative.

- Short-term goals:
 - Develop well-defined, measurable goals for sustainable food sourcing.
 - Work with Bon Appetit to develop strategies to increase the percentage of locally sourced food.
 - Work with Bon Appetit to develop strategies to reduce the purchase of conventional animal products.
 - Develop policies and procedures for tracking food expenditures that align with the STARS reporting requirements.
- Long-term goals:
 - 20 percent of food and beverage expenditures should be locally sourced or certified under a third-party verification program.

Campus Food Programs

To support sustainable food consumption on campus, Dining Services hosts Meatless Mondays every week in Foss Dining Hall and serves produce from the Colby Organic Garden. The Food Recovery Network recovers extra pre-consumer food and donates it to the Evening Sandwich Program.

- Short-term goals:
 - Promote Community Supported Agriculture (CSA) and provide educational programming to help students, faculty, and staff use all of the produce.

- Evaluate options for professional management of the Colby Organic Garden to improve yields, provide more food from the garden to the dining halls, better plan the garden, rotate crops appropriately, and expand educational outcomes.

Food Waste Management

Since 2013 Colby Dining Services has collected and composted all pre- and post-consumer food waste in the dining halls. More recently, composting infrastructure was installed in the Spa and in all campus meeting rooms that regularly host catered events. In fiscal 2016, 217 tons of waste were composted. The Colby chapter of Food Recovery Network further reduces the food waste by collecting and donating 40-100 pounds of food per week to a local program. All Colby dining halls are trayless, which helps students take only what they will eat. Bon Appetit reduces waste in the kitchen by preparing precise, small quantities of food and reducing waste in the supply chain through their Imperfectly Delicious Produce program, which promotes the use of produce that has traditionally been left in the fields because it does not meet cosmetic standards.

- Short-term goals:
 - Offer composting at all catered and campus events.
 - Implement a food waste tracking system in the dining hall and catering kitchens. These systems help kitchen staff optimize the amount of food produced and reduce pre-consumer food waste. Use this information to establish food waste reduction goals.
 - Develop education programs for students, staff, and faculty to ensure the community understands what can be composted.

Nitrogen Reduction

Colby is part of a small cohort of 16 other higher education institutions who are tracking their nitrogen footprint. The greatest source of nitrogen is from food production and consumption. In 2013, Colby produced approximately 44,240 kg N/year. The greatest contributor is food production and consumption, and within food the largest contributors are milk and bovine.

- Short-term goals:

- Implement the food waste tracking system as discussed in Food Waste Management to allow more accurate calculation of our nitrogen footprint.
- Ensure that an array of non-animal proteins are available at all meals to allow consumers to choose nutritious, meatless options.

Transportation

Alternative Transportation

Alternative modes of transportation will be a significant element of sustainability planning and emissions reduction, particularly given the College's location in a rural area. Parking is free at Colby, yielding a parking footprint larger than the building footprint. Currently, Colby has an iBike bike share program that is available for all members of the campus community, with some students trained as mechanics who maintain this fleet. There is a repair station for students who own their own bikes on campus. Other methods of transportation available to Colby students and employees include three ZipCars, a daily shuttle between campus and downtown Waterville, a Jitney service that brings students anywhere they need to go in Waterville, a RideBoard list for carpooling, a shuttle service to the airport for breaks, and a Concord Coach stop at the Athletic Center. A recent student project used GIS to identify areas of campus that are barriers for cyclists and made recommendations for future improvements. Showers for those who commute by bicycle are located in four buildings, indoor storage is provided in some residence halls, and covered bike racks are located at the Athletic Center and the Alumni Center. Short-term goals:

- Reassign parking areas to better align supply and demand for users, and reduce on-campus driving.
- Consider charging for parking to reduce demand and to incentivize use of alternative modes, which would align our policies with those at peer institutions.
- Expand car share and distribute across campus for easier access.
- Promote more biking on campus by creating complete streets and ensuring all future construction projects incorporate bike infrastructure during the initial design.

- Using GIS, maintain a map of bike friendly routes on campus and connecting trail networks both on and off campus. Overlay campus paths with ADA data and perform an analysis to improve accessibility.
- Simplify and streamline the current bike share program and replace all bike racks in poor condition. Locate bike racks to be visible and functional.
- Provide shower facilities in all new construction and major renovations to promote commuting to campus via bike or walking.
- Develop an incentive program to encourage students, staff, and faculty to use alternative modes of transportation to get to campus.
- Continue to promote alternative methods of transportation through orientation programming, yearly events, and educational activities.
- All electric vehicle (EV) charging stations should be networked via an app such as ChargePoint that allows users to know when they are available and identifies their locations.
- Evaluate (EV) charging needs and install charging stations to meet demand.
- Based on the results of the student and employee commuter survey, identify transportation methods in need of improvement in terms of accessibility and the expansion to downtown Waterville. Evaluate expanding the current shuttle program and opportunities for partnerships with KVCAP or the Kennebec Explorer.
- Encourage staff and faculty to live close to campus through location-based incentives that assist home ownership.
- Join the GO MAINE commuter program offered by the Maine DOT and Maine Turnpike Authority. This will help employees carpool and guarantees a ride home in the event of unexpected illness, family emergency, etc. This is available at no cost to Colby.
- Long-term goals:
 - Expand the complete streets approach to areas in the surrounding neighborhoods, paying special attention to the routes connecting campus and downtown. Work with the local government to provide safe bike paths along Mayflower Hill Drive.

- Eliminate student parking in the core of campus except as needed for ADA and service access.
- Net zero growth in parking spaces. Reduce parking footprint through possible structured options.
- For all new construction and major renovations, provide the LEED-recommended number of reserved spots for carpools, low-emissions vehicles, and electric vehicle charging.

Campus Fleet

Colby's fleet accounts for three percent of total campus emissions, which has increased despite a goal to reduce fleet emissions 10 percent by 2015. The fleet consists of one plug-in hybrid out of 34 total vehicles.

- Short-term goals:
 - Replace vehicles that have reached the end of their useful life with more efficient models.
 - Replace gas utility vehicles that have reached the end of their useful life with electric models.
 - Identify users that can accomplish their work using smaller hybrid or electric vehicles.
 - Promote bike use among staff and faculty to reduce emissions from cars and trucks.
 - Establish realistic, measurable goals for reduction in fleet emissions.
 - Ensure employees are aware of and abide by the "No Idling" policy. Consider signage within vehicles and increase enforcement if necessary.
- Long-term goals:
 - Increase the number of hybrids in the fleet and switch to electric where possible.

Purchasing

Colby purchases nearly 100 percent Electronic Product Environmental Assessment Tool (EPEAT) certified electronics (silver and gold) and 100 percent FSC certified and 100

percent post-consumer content paper. Five percent of purchases are from local businesses, 40 percent from within Maine, and 41 percent of total purchases have some sustainable attribute. The top ten on-going consumable categories by cost are paper, coffee-related products, ink, notebooks, folders, board products, toner, labels, chairs, and files. These ten categories comprise 87 percent of annual purchasing and 47 percent have sustainable attributes. The Purchasing Office guidelines recommend products with recycled content and Energy Star certified products.

- Short-term goals:
 - Evaluate the opportunity to align on-going consumables, furniture, and computer purchases with LEED O+M standards.
 - Create furniture purchasing guidance for the campus community.
 - Continue best practices in IT for computer sourcing.

Waste

Waste Management

In January 2017, Colby switched to single stream recycling, which includes plastics, bottles and cans, and paper products. Both the recycling and trash are managed by Waste Management. Compostable materials are collected in all three dining halls, as well as in the student center, and the Alford Apartments. The compostables are collected by AgriCycle and brought to Exeter Agri-Energy, an anaerobic digester facility. Excluding construction debris, Colby had a 36 percent diversion rate in fiscal 2015-16. The trash per campus user was 0.52 tons. There was a total of 709 tons of landfill waste, 179 tons of recycling, and 225 tons of compost. The ash produced by the biomass plant is diverted from the landfill and used by a local organic farm as a soil amendment. Colby's waste reduction programs include the following: RESCUE Sale, Freecycle, discounts at the Spa for using reusable cups, option for students to have recycling and composting bins for their rooms, and Weigh the Waste events to raise awareness about food waste.

- Short-term goals:
 - In accordance with the change to a single stream recycling system, ensure all signage is updated, identify new locations for recycling dumpsters, and compile better data for trash.

- Achieve a 50 percent diversion rate and a maximum 0.50 tons of trash per campus user.
- Implement composting at all catered events on campus, identify other areas that could support composting bins, and expand the student compost bin sign-out program.
- Create a waste reduction competition in the dorms similar to the 5-Minute Shower Challenge and Dorm Electricity Competition.
- Long-term goals:
 - Become a zero-waste campus (90 percent+ diversion rate).

Campus Events

Colby composts at all large campus events, including Commencement and First-Year Student Orientation. These events are effectively zero-waste, with a 90 percent diversion rate.

- Short-term goals:
 - Create a green event checklist and certification program for campus events, including those hosted by clubs and registered parties, which includes composting, compostable utensils, recycling bins, informational signage, and any remaining usable food donated.
- Long-term goals:
 - Conduct a life cycle cost analysis to evaluate the use of dishware in place of compostable products.

CONCLUSION

The Sustainability Action Plan is a living document and will be reviewed annually and updated every three years. The plan lays out an ambitious list of goals, which are rooted in current practices at the College that will continually evolve to engage more deeply and broadly in sustainability.