The Third-Century Sustainability Plan

A Plan for Climate Action and Campus Sustainability

2022

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In 2019, Colgate's Bicentennial celebration provided an important moment to reflect on and critically embrace the university's history. Colgate's Bicentennial was also an opportunity to look ahead, refocus, and develop a long-term plan to enhance its standing as one of the truly great academic institutions in the nation and around the world. The outcome was a long-term, forward looking strategic plan. *The Third-Century Plan* was the result of many conversations and broad collaboration between numerous institutional governance committees, senior leadership, and the Board of Trustees.

The Third-Century Plan challenged trustees, administrators, and Colgate's faculty to focus, over a significant period of time, on the following fundamentals for academic and organizational excellence:

- Attracting and supporting truly outstanding students, faculty, and staff.
- Strengthening Colgate's academic enterprise.
- Enriching the student experience across residential life, campus programs, and athletics.
- Sustaining and improving an already beautiful campus and village.

Additionally, *The Third-Century Plan* specifically challenges the university to enhance its physical campus and decrease the burdens it places on its environment.

Prior to approving *The Third-Century Plan*, Colgate's faculty ratified the *13 Goals of a Colgate Education*. Among them, they specified that a Colgate education should enable students to "*recognize their individual and collective responsibilities for the stewardship of the earth's resources and the natural environment*" and graduate as "*engaged citizens who strive for a just society.*"

A robust campus sustainability program will help Colgate meet the important goals and aspirations of *The Third-Century Plan* and the *13 Goals of a Colgate Education*. How? Students want to attend, and faculty and staff want to work at, an institution that models sustainable practices. The concept and pedagogy of sustainability is inherently interdisciplinary and enhances learning and strengthens the ideals of a liberal arts education. Moreover, student engagement in sustainable values and principles fosters community and enriches the Colgate experience through the nexus of curricular and co-curricular activities. Finally, the way we tend to our buildings and grounds, landscape, and natural heritage can profoundly reduce our impact on the local environment and ensure that our beautiful campus remains welcoming, healthy, clean, and vibrant in perpetuity. These are among a few of the benefits of modeling and teaching sustainability at Colgate that directly relate to our core institutional priorities. Others include reducing operating costs and boosting efficiencies, improving public relations, creating additional pathways for alumni engagement, and strengthening community and interpersonal relationships, on

and off campus. Simply put, advancing campus sustainability is necessary if the university is to achieve its highest ambitions.

Of course, Colgate University exists within the broader context of civil society and cannot ignore today's most profound social and environmental challenges. Modern society's consumptive patterns and the design of our linear material economy consumes natural resources, energy, and minerals at ever-increasing rates. Our current cultural, economic, and political systems encourage intensive and extensive use of natural resources their extraction and consumption which accelerate the loss of ecosystems and biodiversity and create increasing levels of plastic waste and industrial pollution. The design of our manufacturing, industrial, food, energy, and transportation systems also contribute climate change and will intensify climate impacts if we continue our current practices. While no one alive today is free from these risks, the impacts are felt most profoundly in disadvantaged and marginalized communities here in the United States and abroad. These are a few of the repercussions of our current way of living. Overcoming the challenges of sustainability and climate change will take a focused and prolonged effort that is intergenerational in nature. Colgate's *Third-Century Plan* implores us to take the long view:

> "*As Colgate enters its third century, it is incumbent on those who steward the institution and those who enjoy its current benefits to determine which initiatives will best strengthen the University and then to vigorously pursue those initiatives over many years. The legacy of the founders of the University demands that we be ambitious. The mission of the University requires that we enter a period of sustained boldness.*"

Is Colgate adept enough to meet our short-term challenges and forward-thinking and bold enough to embrace the challenges of sustainability and climate change? How Colgate addresses these challenges, in practice and in its pedagogy, will help define the university in the years ahead. As we continue our pursuit of a more sustainable campus, the journey itself has important institutional value. Sustainability teaches important principles that prepare our students for success in civil society and in the workplace while achieving the best expression of Colgate's ambitious university-wide goals.

This *Third-Century Sustainability Plan* (the "Sustainability Plan") highlights several key areas to advance campus sustainability and climate action over the next few years. However, it is important to emphasize that this sustainability plan is a living document as new research, policies, incentives, partnerships, organizational structures, and technologies will create opportunities not available today. For this reason, we must remain vigilant and open to reevaluating and revising our strategies when better ones emerge. Our progress will be updated annually and shared with the broader Colgate community and Board of Trustees.

The *Third-Century Sustainability Plan* was spearheaded by the Sustainability Council and dozens of faculty, staff, and students contributed their time and effort to the strategies outlined in this plan. In the summer of 2020, campus sustainability was elevated as a core institutional priority and identified as a key initiative to help meet the goals set out in Colgate's *Third-Century Plan*. This plan would not have been possible without the guidance, support, and strong leadership of President Brian Casey and the President's Cabinet.

Finally, hundreds of Colgate students contributed tremendous effort and enthusiasm to this plan through research in their courses, internship in the Office of Sustainability, volunteerism in the Sustainability Representatives (S-Reps) program, or service on one or more of the many sustainability-oriented student groups on the Colgate campus.

This Sustainability Plan is truly the result of a campus-wide effort lead by Colgate's Sustainability Council.

Background

In 2008, Colgate University publicly committed to the teaching and practice of sustainability when it became a signatory of the Second Nature Carbon Commitment[1]. With the final approval of our 2011-2015 Sustainability and Climate Action Plan, Colgate pledged to achieve carbon neutrality in our bicentennial, 2019, and to make carbon neutrality and sustainability a part of the curriculum and other educational experiences for all students. Colgate shifted its focus to integrating sustainability throughout campus culture and operations in its *Bicentennial Plan for a Sustainable and Carbon Neutral Campus* in 2017 and became the first institution of higher Education in New York to achieve carbon neutrality in 2019. While we celebrate our recent achievements, Colgate sees carbon neutrality as an important milestone– not an end goal. Colgate chooses to take responsibility for its impact on our changing climate and the associated environmental justice implications by continuously working to reduce our campus emissions and committing to offset our remaining footprint each year. April 22nd, 2019, our campus carbon neutrality date, was the start of this bold commitment. *The Third-Century Sustainability Plan* serves as an update to the *Bicentennial Plan for a Sustainable and Carbon Neutral Campus. The Third-Century Sustainability Plan* includes bold measures that will equip Colgate to continue its proud tradition of sustainability leadership well into its third century.

Sustainability and Carbon Neutrality at Colgate 2005-2020

Colgate's initial commitment to sustainability began in 2005 when the Environmental Council was charged by Colgate's senior leadership to advise the president's cabinet on issues of campus sustainability. After signing the Carbon Commitment in 2008, the Environmental Council was renamed the Sustainability Council and broadened its charge to include developing a coordinated environmental vision for short- and long-term planning to ensure a safe, healthy, and sustainable environment. As Colgate's commitment to campus sustainability deepened, the Council worked diligently to hire a sustainability director and measure our annual campus carbon footprint beginning in 2009. This initial 2009 Greenhouse Gas (GHG) Inventory determined our campus baseline of 17,812 MTCO2e (Figure 1 demonstrates gross and net campus emissions since 2009).

Colgate's path to carbon neutrality has not been a straight line – every year brings certain challenges and opportunities that impact our campus carbon footprint. For example, in fiscal year (FY) 2019, the university used an above average amount of natural gas because our wood boiler went offline to perform a necessary efficiency upgrade to our carbon neutral wood boiler. Although this upgrade improved the efficiency of our wood boiler and was an intentional decision to improve campus sustainability, the upgrade itself caused an

[1] *The Second Nature Carbon Commitment was formerly known as the American College and University Presidents' Climate Commitment (ACUPCC).*

increase in gross emissions compared to 2018. This example demonstrates how long-term sustainable decisions can appear to have the opposite effect in the short term. In FY 2020 we also faced unique circumstances that drastically decreased our campus carbon footprint. Many students and employees transitioned to remote work in March of 2020 in response to the global COVID-19 pandemic which nearly eliminated university sponsored air-travel and commuting emissions for a quarter of the fiscal year. Especially cold or above average warm winters can have similar impacts on energy use and corresponding carbon emissions further fluctuating our annual carbon footprint. Nevertheless, the goal of our campus sustainability and climate action work is to reduce emissions over time and look for downward pointing trends.

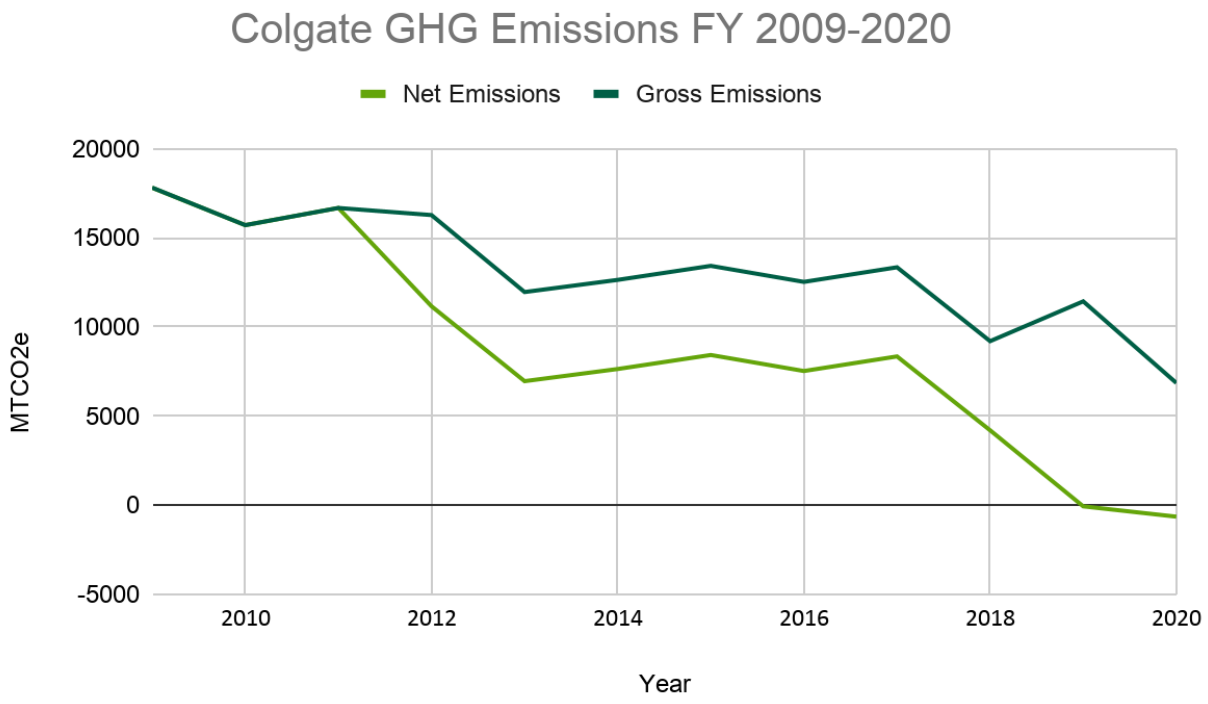

Figure 1: Colgate gross and net campus greenhouse gas emissions 2009-2020

Since 2009, Colgate has reduced gross campus carbon emissions by 49%[2]. Colgate's gross emissions combine emissions from campus heating, campus sponsored travel, fertilizer use, employee commuting, paper consumption, forest management, and electricity among other sources. Colgate's net emissions subtract carbon offsets and renewable energy credits from our gross emissions (see the section on Offsets). While measuring and managing our campus carbon emissions is a critical component of Colgate's overall sustainability program, we also work diligently to reduce our impact on environmental degradation and associated social injustice through additional means.

[2] *This figure represents a present reduction comparing the 2009 baseline to a three year average from FY 2018-2020 for reasons mentioned above.*

Waste, for example, is not a large part of our campus carbon footprint, but Colgate recognizes the devastating up- and down-stream impacts of overconsumption and single-use plastics on human health and wildlife. Over the last decade, we have improved waste management practices; however, we recognize the operational benefits and ethical obligation to move our campus closer to zero waste. In this plan, we outline ways in which our community can reduce waste and act as better stewards of our resources.

Our institution also recognizes water as a valuable resource that should be conserved. Through the implementation of our 2011 Sustainability and Climate Action Plan, we were able to make great strides towards reducing our water usage. With the implementation of our *Third-Century Sustainability Plan*, we will be able to continue these reductions saving our institution not only water, but also energy and money.

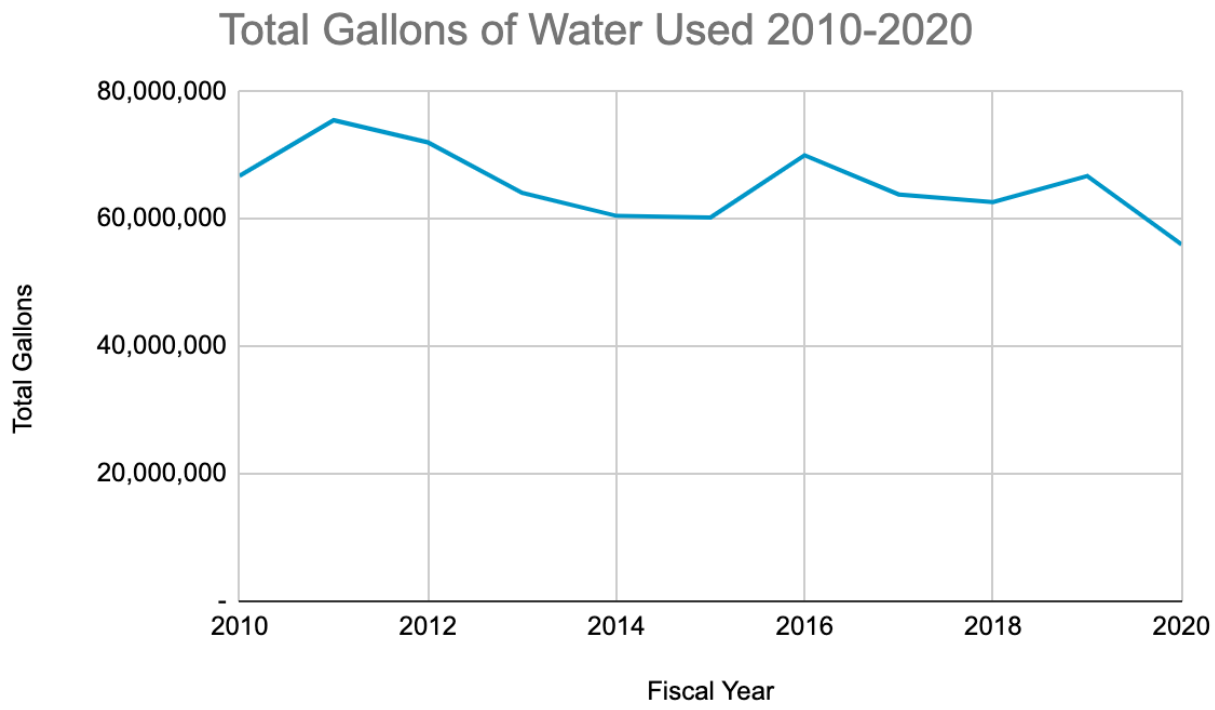

Figure 2: Colgate Water Usage (gallons) 2010-2020

The presence of sustainability in our curriculum has also grown over the last decade. Faculty who are dedicated to sustainability have raised awareness and initiated faculty development sessions on integrating sustainability in the curriculum. Today, over 12% of Colgate classes focus on or include sustainability as a major component, a 2% increase from 2016. These courses span across 50% of Colgate's academic departments and programs, a 5 percent increase from 2016.

Colgate's sustainability program has profoundly impacted the lives of hundreds of Colgate students and dozens of students have studied and researched issues of sustainability through our formal curriculum. Their contributions through research and class projects have directly advanced our campus sustainability program. Additionally, over 130 students have worked in the Office of Sustainability as student interns since 2009 and many more as volunteers. A growing and impressive group of students have gone on to continue studies or pursue careers in the field of sustainability.

This *Third-Century Sustainability Plan* highlights actions and initiatives to address each of the issues mentioned above. This Sustainability Plan also provides a focused framework for continuing to advance sustainability in food and dining services, purchasing decisions, campus culture and individual engagement, university-supported transportation, and others. In Colgate's third century, we will challenge ourselves to continue this proud tradition of sustainability leadership. In its current state, this living plan lays out goals from 2021-2025 that will continue to guide us in pursuit of a campus sustainability program that adds academic value to our students and faculty, strengthens our sense of community, reduces our social and environmental impacts, and reduces operating costs over time.

Strategic Considerations

While creating the *Third-Century Sustainability Plan*, the Sustainability Council has kept the following mission, vision, and guiding principles at the forefront of our decision-making process.

Mission

To promote educational opportunities, foster partnerships, provide leadership, and contribute practical solutions to advance environmental stewardship, social justice, and fiscal responsibility at Colgate University.

Vision

Colgate's sustainability program strives to:

1. Enhance Colgate's liberal arts education by working with faculty and staff to integrate the concept and practice of sustainability into our curriculum.
2. Promote a learning and working environment that is environmentally and socially conscious.
3. Integrate sustainability into our operations, day-to-day practices, and into our built environment.
4. Advance sustainability in the Central New York region through collaboration with local institutions, agencies, and individuals.

Guiding Principles

Colgate's guiding principles for sustainability were adopted in the 2011 Sustainability and Climate Action Plan and are updated in this plan. Today, they continue to serve as an important guide for day-to-day decision-making. The integration of Colgate's guiding principles into our campus culture and mindset will allow us to collectively advance sustainability on campus.

Colgate's Guiding Principles to Advance Sustainability on Campus:

1. Foster opportunities that link the curriculum with operations in a way that supports Colgate's liberal arts education and gives students the opportunity to put sustainability theory into practice.
2. Cultivate learning opportunities that engage students with the long-term social, environmental, and economic sustainability of Central New York.
3. Promote a campus community that values cultural and ecological diversity.
4. Provide a safe, healthy, and engaging work and living environment that fosters interaction, recreation, and education.
5. Consider long-term impacts, lifecycle analyses, and integrated systems thinking in all our sustainability initiatives so that they consider holistically the interdependent issues of economic vitality, environmental quality, and social equity.
6. Support new policies and programs that prioritize the efficient use of, and reduced demand for, energy and natural resource extraction.
7. Consider end-of-life disposal and recycling options when making purchasing decisions. Take necessary precautions to prevent environmental pollution and unnecessary landfill waste.
8. Consider life-cycle cost analysis, including social and environmental impacts, for our contracts, investments, and purchasing decisions.
9. Promote fair and equal access to all sustainability programs throughout the university.
10. Embrace and recognize the need to create open, safe, and welcoming spaces and programs that are inviting for all Colgate community members.
11. Favor policy, purchasing, and operational decisions that exert a positive influence in our bioregion. This includes decisions that minimize environmental impacts, support healthy communities, maximize long- term value, and contribute to local and regional economic health.

Colgate's Sustainability Council embraces the three foundational pillars of sustainability: social, economic, and environmental. Sustainability at its core is a decision-making framework that considers how our programs and initiatives impact the diversity of people in our community, Colgate's finances, and our natural environment. For this reason, diversity, equity, and inclusion are fundamental to our campus sustainability approach and core guiding principles throughout this plan.

As we continue our journey towards a sustainable future, it is important to remain flexible and open to emerging technologies and new opportunities. As these opportunities present themselves, they should be evaluated using the following criteria:

- Time horizon: how important is early success or is success over the long-term worth striving for?
- Achievability: how likely is it that this goal can be attained?
- Financial cost: what financial resources would be required to support the proposed initiative and where would potential sources of funding come from?
- Community readiness: will various stakeholders support the proposed initiative, or will it be unpopular or overly burdensome?
- Impact: if achieved, will the goal have a significant influence or a marginal influence on Colgate's overall sustainability profile?
- Ease of implementation: will the work require a considerable investment of institutional time and energy? How technically difficult would the initiative be to implement?

Campus Culture

While our recent progress and achievements are exciting, Colgate's high-level sustainability goals and aspirations need to achieve broader commitment and support at every level of decision-making at the university. Opportunities to foster a sustainable mindset exist throughout Colgate's culture, governance structures, and overall decision-making processes.

Student Engagement

As a leading liberal arts institution, it is critical that Colgate engage and inspire students to practice a sustainable and socially conscious lifestyle from the moment they arrive on campus until they graduate. The Office of Sustainability provides internships to interested students who, in turn, engage and educate their peers on issues of sustainability. These interns also manage the Sustainability Representatives (S-Rep) Program that provides students interested in sustainability with valuable leadership skills so that they can be change-makers during their four years on campus. Through peer-to-peer programming, sustainability-minded students have engaged fellow classmates, friends, and teammates to influence student culture on campus. While these achievements are important for the university, we must further integrate sustainability throughout the student experience at Colgate.

Commitment: Continue to integrate sustainability within new-student orientation to emphasize its importance from a student's first day on campus by:

- **Eliminating single-use plastics at all orientation events by 2023.**
- **Educating all new students on waste minimization and recycling by working within the residential commons by 2023.**
- **Further incorporating sustainability into Link-staff training by 2023.**
- **Providing orientation materials through electronic means by 2023.**

Lead responsibility: Dean of the College Division, Assistant Director of Sustainability, and Facilities.

Orientation is a critical time for new students to acclimate to campus culture and an opportunity to build new lifestyle habits. New-student orientation has increased focus on peer-to-peer sustainability education since 2017. The Assistant Director annually trains Community Leaders (CL), Link Staff, and Outdoor Education leaders and provides them with tools to empower new students (and all students) they lead. The Office of Sustainability also hosts a "meet-up" each year for new students learn more about sustainability at Colgate and get to know each other. In 2020, there was a sustainability

module on the new-student orientation Moodle site that provided information about waste, recycling and other sustainable living practices. Our community also provided additional recycling receptacles and waste minimization information to reduce waste during move-in and orientation. Colgate should be proud of the work so many across campus have done to integrate sustainability into orientation; however, there is still room for growth. Eliminating waste and educating the student body during this foundational experience will further sustainable behavior on campus and bolster the success of this plan.

Commitment: Institute optional graduation pledge for class of 2022 by December 31, 2021.

Lead responsibility: Assistant Director of Sustainability

Implementing an optional graduation pledge for Colgate seniors provides students an opportunity to make a symbolic commitment before representing themselves and Colgate University in their communities, workplace, and/or any post-graduation affiliations. The Graduation Pledge Alliance has already created language for Colgate to consider: "I pledge to explore and take into account the social and environmental consequences of any job I consider and will try to improve these aspects of any organizations for which I work." A graduation pledge like this, adapted to express Colgate's values, would support our campus DEI and sustainability goals, and remind students to live out sentiments in the 13 Goals of a Colgate Education throughout their careers.

Commitment: Continue to link sustainability to on-campus living, learning, social, and athletic communities by:

- **Reviewing and revising the Sustainability Representatives (S-Rep) program to better align with the Residential Commons' values and goals by July 2022.**
- **Formalizing a student sustainability committee with student stakeholders across campus by July 2022.**

Lead responsibility: Assistant Director of Sustainability, Dean of the College Division, Student Government Association

The student experience is enhanced when concepts taught in the classroom are combined with campus involvement and governance opportunities. Over the last few years, Colgate has prioritized student involvement in capital projects, the Sustainability Council, the carbon offset decision-making process, and various other campus initiatives such as Colgate's annual greenhouse gas inventory. These unique opportunities enrich the student experience and improve campus and the environment and are valuable experiences for the students involved. Updating the S-Rep program and formalizing a student sustainability

committee will create more opportunities for students across campus to develop important leadership skills and act as engaged scholars on Colgate's campus. Already there are student-led sustainability groups in Athletics and Greek Life Organizations and bringing these groups together to share best practices and collaborate will lead to greater engagement and programming among the student body.

Commitment: Promote a culture of alternative transportation by expanding the Green Bike fleet by four bikes each year for the next five years.

Lead Responsibility: Assistant Director of Sustainability

The Green Bikes program provides zero-emission transportation to Colgate community members for an affordable monthly rate. However, this cannot be sustained long-term without external financial support. For $15 a month, renters receive a working bike, a bike helmet, and a bike lock. Since demand for the program has been higher than we can meet with our current fleet (25), particularly in the Fall and Summer rental cycles when the weather is conducive to biking, we would like to increase our fleet size gradually over the course of the next five years.

Employee Engagement

The introduction of the sustainability behavioral competency in staff job descriptions in 2015 has supported employee engagement with sustainability. The language for the behavioral competency in sustainability reads as follows:

> *"Understand the impact of decision-making and personal behavior in achieving the university's commitment to a sustainable and carbon neutral campus; supports and advances the university's sustainability initiatives; influences others to use sustainable practices."*

To strengthen staff competency in this area, the Office of Sustainability developed the Sustainability Passport Program to facilitate staff learning and engagement, reaching more than 275 Colgate employees to date. To further bolster competence in sustainability, and reach a broader employee audience, Colgate is committed to the following.

Commitment: Expand the employee sustainability passport program to include asynchronous learning options by August 2021.

Lead responsibility: Director of Sustainability

The Sustainability Office has created, supported, and organized a suite of educational programs that have advanced the employee's knowledge of sustainability at Colgate while promoting pro-environmental behaviors on campus. Through the Sustainability Passport Program, employees register for sessions of their choice, earning "credits" for each program they participate in. Once enough credits are earned, employees receive recognition for their competency in sustainability at Colgate and beyond. This professional development program has created better environmental stewards and advocates for sustainability on campus. To expand this program, the office of sustainability will introduce a suite of videos and learning modules that will allow employees to learn more about the concept and practice of sustainability virtually.

Commitment: Further integrate sustainability education into employee orientation, governance, and development opportunities, ongoing.

Lead responsibility: Office of Sustainability, Human Resources, Employee Resource Groups

Similar to new student orientation, an employee's first few weeks at Colgate are a valuable time to orient them to campus culture, values, and traditions. By integrating sustainability into employee orientation, we will set employees up for success in fulfilling their sustainability behavioral competency while introducing them to additional resources and services offered by the Office of Sustainability.

Throughout an employee's time at Colgate, it is important that they have the ability to grow in their understanding of sustainability and DEI principles. Outside of the Sustainability Passport Program, employee resource groups like Colgate Hello, have been wonderful champions of sustainability, engaging a wide range of employee conversations around environmental stewardship and social justice. Supporting employee resource groups and integrating sustainability into the new Staff Advisory Council can ensure that employees have access to and support for important Sustainability and DEI development opportunities.

Commitment: Complete a commuter transportation report exploring a suite of strategies and options to reduce commuting emissions by August 2023 and pilot an employee commuting program by August 2024.

Lead Responsibility: Office of Sustainability

Employee commuting emissions account for, on average, 10% of campus carbon emissions. To address this, we will conduct an employee commuting behavior assessment to determine the key factors that influence employee commuting habits. We will then use this

assessment to create programs and incentives that will help to reduce emissions associated with employee commuting habits.

Alumni Engagement

Commitment: Strengthen connections with alumni by organizing an annual sustainability alumni event by December 31, 2022.

Lead responsibility: Office of Sustainability & Office of Alumni Relations

Colgate's Alumni have been incredibly supportive of our sustainability initiatives. To give back to our alumni community, and engage them in Colgate's sustainability progress, we will plan at least one event each year to connect with alumni on the topic of sustainability.

Curriculum & Learning

Colgate's curriculum and co-curriculum include many offerings that relate to sustainability including academic courses, co-curricular programming, internships, and diverse aspects of student life. Interestingly, sustainability continues to be the domain of Environmental Studies, rather than being a shared curricular responsibility across departments and divisions. We work to challenge this misconception. Our faculty and student populations consist of a substantial minority who are knowledgeable proponents of sustainability, alongside a much larger majority who are less aware of and invested in the importance of sustainability as a central component of our educational mission. We serve the needs of the first category quite well both within the curriculum and co-curriculum; therefore, our central challenges involve the second group.

The recent Carbon Neutrality of the University as well as the inclusion of sustainability in the third century plan as one of the foci of the University along with DEI, Athletics, Financial Aid, and the Middle Campus will elevate the issue among students, staff, and faculty; however, its inclusion in the CORE Revision as a Liberal Arts Practice: Inequity and Climate Change will integrate sustainability throughout the curriculum and will transform the curriculum.

Sustainability in the Curriculum

Commitment: Identify and encourage courses on sustainability and climate change in the curriculum, ongoing.

Lead responsibility: Sustainability Council Curriculum Subcommittee.

Every few years as part of AASHE STARS, we assess the number of classes in the curriculum that are Sustainability Focused and Sustainability Intensive. Most of the courses with a primary focus on sustainability are housed in Environmental Geography, Environmental Biology, Environmental Geology, Environmental Economics, Environmental Studies (ENST), Geography, Geology, and Biology.

The importance of sustainability to our curriculum was recognized in the adoption of "The 13 Goals of a Colgate Education" approved by Colgate's Academic Affairs Board, Faculty and Trustees in 2010. Goal 11 of the 13 Goals call for Colgate students to "Respect nature and the diversity of life on earth: recognize their individual and collective responsibilities for the stewardship of the Earth's resources and the natural environment." In addition, goals 6 and 10 relate to sustainability through the perspectives of scientific inquiry and social justice. Goal 6 calls upon students to "Examine natural phenomena using the methods of science, and understand the role of science in contemporary society." Goal 10

calls upon students to “Be engaged citizens and strive for a just society: embrace their responsibilities to local, national, and global communities; use their influence for the benefit of others.” While it is clear that our curriculum is successful in engaging those already committed to sustainability, the Goals are consistent with the need to engage the more general population of faculty and students in issues related to sustainability and climate literacy.

The curriculum subcommittee of the Sustainability Council works continuously to integrate sustainability into the curriculum through both formal and informal means as well as to inform faculty and students about sustainability and climate change issues locally, Colgate and Hamilton, and beyond.

Table 1: Colgate Sustainability Courses AY 2019-2020

Category	**Total with labs**	**Total without labs**
Sustainability Focused	42 (4.2%)	41 (4.4%)
Sustainability Inclusive	81 (8.2%)	75 (8%)
Not Applicable	871 (87.6%)	824 (87.7%)
Total courses	994 (100%)	940 (100%)

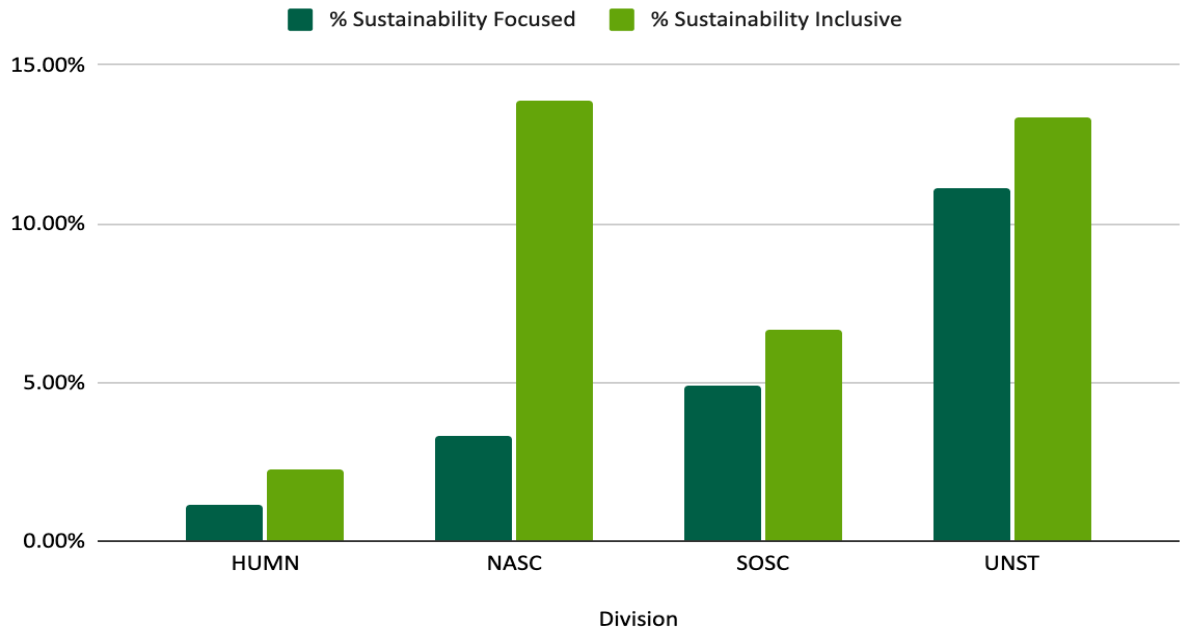

Figure 3: Percent courses across division that are sustainability focused and sustainability inclusive out of 853 courses in total

Commitment: Continue working towards inclusion of sustainability in the CORE Revision by September 2021.

Lead responsibility: Sustainability Council Curriculum Subcommittee.

The Core Curriculum is a required component for all Colgate students and one of the primary vehicles for achieving *The 13 Goals of a Colgate Education*. Faculty members on the Sustainability Council and beyond have worked tirelessly to include sustainability and conservation into the CORE Revision. The most recent draft of the Core Curriculum was exciting because of the addition of a Liberal Arts Practice titled: Current Crises: Inequity and Climate Change. In one move, students would be required to take a course that meaningfully addressed inequity or climate change, both pillars of sustainability and urgent and important issues today. As stated in the revision: "Climate change threatens both human and nonhuman life on Earth. Social inequity—on the basis of categories such as race, ethnicity, class, gender, sex, sexual orientation, national origin, first language, age, religion, or physical, emotional, and developmental (dis)ability—is similarly urgent, impacting lives from the individual to the global level. Courses fulfilling this Practice will have as a main point of emphasis at least one of these two topics. Such courses already appear in departments and programs across the curriculum. As a Practice, this curricular addition specifically reflects Goal 10 of *The 13 Goals of a Colgate Education*, for students to be engaged citizens, strive for a just society, and embrace their responsibilities to local, national, and global communities." Although the recent CORE Revision was rejected, by a very small margin, the Sustainability Council's Curriculum Committee is committed to continuing its efforts to include Climate Change and Social Inequity as an element of the CORE revision.

Commitment: Increase faculty awareness of teaching to sustainability, ongoing.

Lead responsibility: Sustainability Council Curriculum Subcommittee.

Should the CORE revision be adopted, accounting for classes that teach to sustainability will be easily quantified and tracked. In addition, we expect that interest in teaching related courses to increase. In the meantime, various opportunities exist for encouraging awareness of teaching sustainability across the curriculum, which can be leveraged more effectively. Annually we use Teaching Tables in the Center for Learning Teaching and Research, Sessions at White Eagle in the spring, and new faculty dinners each semester to build community around shared interest, expertise, and values. At these events we discuss how to incorporate sustainability into teaching. We have also had seminar series such as the Climate Change series developed by Professor Ana Jimenez which was incorporated into each of the Residential Commons over the 2019-2020 school year. This series included participation from faculty across campus, and addressed topics like "Why is the Amazon

burning," "What can YOU do to stop climate change?" "How is climate change affecting the Arctic?" and lastly, a presentation hosted in the Hancock commons "What exactly is climate change?" All of these were "standing room only" indicating incredible student, faculty and staff interest.

Formal Co-Curricular Programming:

The long-standing Environmental Studies Brown Bag Program brings visitors to campus and remote seminars during the pandemic to address a broad range of sustainability-oriented topics on Fridays throughout the fall and spring semesters. The program is funded sufficiently to provide appropriate honoraria for our guests, as well as "brown bag" lunches for those attending. Attendees include students, faculty, staff and occasionally local residents. Recent topics include: arctic change, local food issues, urban development, and deer overpopulation. The Sustainability Council will work with ENST to broaden the outreach of these Brown Bags as a way of attracting greater participation by faculty and students for whom sustainability has been a peripheral, rather than a central, concern.

Commitment: Enhance co-curricular education/experiential learning that foregrounds sustainability, ongoing.

Lead responsibility: Sustainability Council.

Experiential Learning:

The ENST junior seminar -- Environmental Studies 390: Community-based Environmental Issues -- explicitly focuses upon experiential learning. All ENST and ENST-cognate majors are required to take ENST 390. As stated in the catalog: "This project-based, interdisciplinary course examines current environmental issues in the context of community-based learning. Topics for investigation are selected by faculty, usually in conjunction with the campus sustainability coordinator, the Upstate Institute, or directly with local and regional agencies or organizations. Students get practical experience working in interdisciplinary teams to examine environmental issues with a goal of developing relevant recommendations." The Sustainability Council will continue to explore the ways in which student projects can benefit the university's overall sustainability efforts, as well as enhance our cooperation with the local community on sustainability-related matters.

Sustainability Interns:

Each year, Colgate's Office of Sustainability hires a dozen or more paid interns. These interns contribute to on and off campus sustainability efforts in many ways. Colgate's

Assistant Director of Sustainability hires and supervises the successful applicants after a highly competitive process. It is a year-long internship. The interns are trained by staff in the Office of Sustainability and a variety of campus partners.

Outdoor Education:

The mission of Colgate Outdoor Education is to provide Colgate students with leadership, wellness, personal growth, sense of place, and community-building opportunities through outdoor and experiential programs. In addition, the Outdoor Education community values sustainability, diversity and inclusion, safety, and improvement and supports Colgate's mission to help students: “prepare for lives of leadership and productive citizenship,” “develop the skills to participate in a lifetime of healthy activity”, and “develop personal potential and experience the cohesion of shared purpose.”

Started in 1988, Wilderness Adventure (WA) is Colgate’s largest pre-orientation program. Currently, over 25% of incoming students participate in Wilderness Adventure. One of the five goals of WA is to help students “...develop a sense of place within Colgate, CNY, and the ADKs.” In addition, “sense of place” is one of the five learning outcomes of OE’s Physical Education classes and one of the six core topics of the Staff Training curriculum. Outdoor Education uses a slightly modified version of the NOLS Environmental Education Curriculum Matrix (O’Donnell, 2014) to break down sense of place into six topics: Science/Natural History; Cultural History; Place Attachment; Ethics; Policy, Management, and Sustainability; and Transference.

Leaders practice teaching lessons on these topics throughout the Staff Training program. They also learn and teach the seven principles of Leave No Trace. In order to prepare leaders to discuss sustainability during WA, staff from the Office of Sustainability present a session during the prep days ahead of the trips during which they talk with all leaders about Colgate’s sustainability efforts. There is also a strong connection between the OE student-staff and the Office of Sustainability and the Community Garden with at least 8 members of the OE staff having served as either Sustainability interns or Garden interns since 2017. In addition, OE and the Office of Sustainability partner to offer a sustainability themed WA trip called “ADK Conservation Adventure.”

The Sustainability Council will facilitate Outdoor Education program partnering with ENST and Biology faculty and students to increase the emphasis upon sustainability in the context of Wilderness Adventure and staff training. Currently, principles such as “Leave No Trace” are well-incorporated, but there is additional room to foreground sustainability in this area of the co-curriculum. One possible approach would be to designate certain Sustainability Interns to serve as links to Outdoor Education to work toward these ends.

Campus Operations

Background

The Operations subcommittee of the Sustainability Council helps to track and monitor the impacts that operational practices have on the overarching sustainability goals and objectives established at Colgate University. How the university manages energy, construction projects and renovations, landfill waste and recycling, water, transportation fuels, purchasing and contracts, and fleet management are a few key operational areas that profound impacts on campus sustainability. The subcommittee works to implement on-campus projects and practices that increase efficiencies, eliminate waste, and reduce Colgate's overall carbon footprint.

The Facilities and Purchasing departments oversee and manage many aspects of campus operations and are directly responsible for much of the progress made in our campus sustainability program since the publication of Colgate's 2017 *Bicentennial Plan for a Sustainable and Carbon Neutral Campus*. More specifically, the Facilities Department completed Colgate's first comprehensive Energy Master Plan, fully integrated Green Building Standards into Colgate's Building Design and Construction Standards, replaced fuel oil along Broad Street housing, and completed a number of building and lighting retrofits that significantly reduced Colgate's energy consumption per square-foot. Likewise, the Purchasing Department has made progress in establishing a comprehensive Environmentally Preferable Purchasing Policy (see Purchasing section of the plan) and continues to work with our suppliers and contractors to ensure that sustainability options are readily available to the campus community. Over the past few years, the Operations subcommittee of the Sustainability Council has been comprised of various staff and students.

The Facilities and Purchasing Departments remain paramount to Colgate's progress to advance sustainability on campus. Both departments, and the university in general, should remain open and responsive to best practices as new data and technology becomes available. Based on the current status of the campus, the Operations subcommittee recommends the following commitments to advance sustainability in campus operations.

Energy and Buildings

Commitment: Revise and improve the existing energy master plan by July 1, 2025.

Lead Responsibility: Director of Facilities, Director of Facilities Operations, Director of Sustainability

Now that the Energy Master Plan has been developed, the subcommittee would like to periodically review and update the plan. During review, the subcommittee will assess the feasibility and implementation of recommendations made within the plan.

Commitment: Implement projects that help reduce energy usage and create efficiencies in five buildings on campus by July 1, 2025.

Lead Responsibility: Director of Facilities, Director of Facilities Operations, Director of Sustainability

Some projects that might be considered and implemented include:

- Developing a Building Recommissioning Plan.
    - During the recommissioning process operational systems and equipment within buildings are reviewed and reset to ensure that the building is operating as designed. This process will help Facilities identify where there are opportunities for energy savings.
- Conducting Building Envelope Studies.
    - Assessment of building envelope systems can help identify areas where there are opportunities for improvements that create energy savings.
- Developing a Temperature Standard Policy.
- Reducing the heating plant MMBTU by creating a utility setback model for campus that would be implemented during times when campus occupancy is low.
- Reducing Fuel Oil #2 emissions by conversion of additional campus buildings to natural gas or electric boilers.
- Increasing efficiency of electricity by:
    - Installing LED lights in Alumni Hall.
    - Installing occupancy sensors on lighting systems in campus offices.
    - Upgrading the lighting in Case-Geyer Library with LED lights, installing occupancy sensors on lighting systems and daylight harvesting sensors.
- Collaborating with Dining Services to reduce waste energy and water consumption in their processes.

Commitment: Continue with improved lighting controls and upgrades on an ongoing basis.

Lead Responsibility: Director of Facilities, Director of Facilities Operations, Director of Sustainability

Colgate has been replacing incandescent and fluorescent lighting throughout campus with LEDs. This process should continue whenever a renovation is planned or when a complete lighting upgrade makes sense as a standalone project.

Water Conservation

Commitment: Reduce water consumption in five buildings on campus by July 1, 2025.

Lead Responsibility: Director of Facilities, Director of Facilities Operations, Director of Sustainability

Over the years, we have made progress in water conservation through the installation of low-flow shower heads in a portion of campus, installation of a water metering system, and installation of a new watering system on Tyler's Field. Expanding these efforts or implementing new projects that help us to further reduce water consumption will be assessed and considered.

Waste Management and Procurement

Colgate University has an ambitious goal to be a zero-waste and plastic-free campus by 2030. Additionally, the university will reduce its total volume of landfill waste from over 800 tons per year to 650 tons per year by 2025. These targets will require a university-wide commitment and buy-in from everyone on campus. These targets can be reached through increased composting of organic waste, less overall consumption and spending on material items, replacement of one-time use disposable items with reusable ones, improved overall recycling rates, and more consistent signage and communication regarding our recycling program.

Unfortunately, over the past few years, Colgate's total volume of landfill waste has steadily increased to an all-time high of 855 tons in 2019.[3] In the spring of 2020, Colgate students in Professor Frank Frey's Environmental Studies 390 course conducted a semester-long

[3] *Colgate's total volume of landfill waste in 2020 was 697 tons, but we suspended normal campus operations for the last four months of the fiscal year.*

research project exploring Colgate's waste generation and disposal practices. Some of their high-level conclusions were:

- Contamination in recycling bins remains a big challenge. When recycling is contaminated with non-recyclables or trash, then the entire load is landfilled.
- Approximately 30% of food purchased by Colgate is wasted.
- Non-meat and non-dairy food waste on campus contribute ~130 tons of landfill waste per year.
- Special events and Athletic events are large sources of waste production on campus. Better sourcing and recycling bins will reduce landfill waste.
- The customized Colgate Landmark recycling stations improved recycling rates and are preferred by custodians and students. Expanding these stations around campus would improve recycling rates.

Commitment: Develop campus-wide standardized signage for recycling and waste stations by July 1, 2022.

Lead Responsibility: Assistant Director of Sustainability, Director of Facilities Operations, Custodial Supervisors

Implementing successful recycling signage for university buildings, including residential, academic, and recreational buildings, is an important step toward minimizing waste and improving recycling quality. This initiative will provide clear and consistent signage for each recycling and trash bin across campus. Through a collaborative effort between the Communications Office, Facilities, and the Sustainability Office, Colgate-branded recycling labels will be designed and hung or posted in all areas with recycling and trash disposal infrastructure.

Commitment: Expand carry-in, carry-out classroom recycling program to six new buildings by July 1, 2025.

Lead Responsibility: Director of Sustainability, Director of Facilities Operations, Custodial Supervisors

Removing trash and recycling bins from inside the classrooms saves the university money in trash and recycling bins, plastic bags, and labor. Most importantly, the single blue recycling bin in many classrooms does not align with Colgate's two-stream recycling program where we have to separate bottles and cans from paper waste. This confuses students and other community members and results in contaminated recycling bins that end up going to the landfill (even if there are recyclables in the bins).

Over the past few years, Alumni, Lawrence, Lathrop, and McGregory Halls have successfully piloted a new carry-in carry-out waste management program. As part of this program, all trash and recycling bins were removed from inside the classrooms and seminar rooms. Signage was added to each room asking people to bring their trash and recycling to centralized and conveniently located stations in hallways and stairwells. In order to make this program work, Colgate needs to invest in new customized Colgate recycling stations that have been introduced as our campus standard. The buildings that have taken the lead in being the pilot for the "carry in-carry out" model were a success. During COVID-19, we backtracked from this program as we encouraged faculty and students to wipe and sanitize their desks and thus had to throw the wipe in a conveniently-located garbage can. The Sustainability Council and the Facilities Department aim to return to the carry-in, carry-out model and expand it to new buildings post-COVID-19. Specifically, Wynn Hall, Persson Hall, Ho Science Center, Hascalll Hall, The Center for Women's Studies and Olin Hall are likely candidates for expansion of the carry-in, carry-out program.

Commitment: Reduce landfill waste by the creation and implementation of a viable composting program on campus by July 1, 2022.

Lead Responsibility: Director of Sustainability, Director of Facilities Operations, Grounds Forepersons, Director of Dining Services

The recent NYS Food Donation and Food Scraps Recycling Law (April 2019) will require large generators of food scraps, such as Colgate, to demonstrate they are making efforts to donate edible excess food and compost whatever food waste is not edible. Donating pre-consumer waste is not a viable option for Colgate at the moment given the relatively small quantity and lack of an organized source to receive such a donation.

Composting is a clear option for Colgate, given the relatively large amount of non-edible food waste we produce. However, Madison County places prohibitive fees on institutions that take waste outside of the county, and there are currently no off-site composting facilities in Madison County. There is hope that with the new 2019 law, there will be incentives and opportunities for establishing composting facilities in the county in the future.

In the meantime, on-campus, in-vessel digesters, are designed to handle all food scraps including meat and fish, using wood chips as the bulking agent. Appropriately sized in-vessel composters could potentially handle the estimated 50 gallons of food waste per day from Frank Dining Hall. Several higher education institutions have already implemented in-vessel composting with success and could serve as a good model for how Colgate could

operate this program. According to the 2020 Spring ENST 390 student survey, 97 percent of students in Frank Dining Hall consider food waste a problem at Colgate and would support composting at the university.

Commitment: Continued development and implementation of the green cleaning program.

Lead Responsibility: Director of Facilities Operations, Custodial Supervisors, Director of Sustainability

In 2017 a Green Cleaning Program was developed and implemented in Benton Hall to be part of the LEED certification for that building. The main goals and objectives of the program were to reduce exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological and particulate contaminants which can adversely impact air quality, health, building finish, building systems and the environment. As part of this commitment the Operations subcommittee plans to review the practices set forth in that program and extend them to other buildings on campus. This would include:

- Periodic review of cleaning products with a goal of utilizing as many sustainable products as possible.
- Review and implementation of sustainable entranceway systems where possible.
- Procuring sustainable cleaning equipment.
- Developing and implementing standard operating procedures (SOPs) for effective cleaning.
- Reviewing and updating practices related to handling cleaning chemicals.
- Developing training for staff on green cleaning practices.

Transportation

University Vehicles

Commitment: Take action to reduce Colgate's vehicle fleet emissions by 15 percent from FY 2020 levels by July 1, 2025.

Lead Responsibility: Director of Facilities Operations, Director of Sustainability

Colgate continues its business partnership with Enterprise. As part of this arrangement, Colgate and Enterprise continuously monitor the usage and type of vehicles to determine opportunities to increase efficiency. The fleet is continuously evaluated to ensure it is "right-sized" to meet the needs of the Facilities Department and upgraded to more fuel-

efficient options. Additionally, Colgate must continue to research and monitor the availability of electric, hybrid, and compressed natural gas-powered vehicles that will be able to meet our transportation needs while reducing fuel consumption and carbon emissions. Likewise, Campus Safety will assess the feasibility of adding bicycle patrols.

Campus Cruiser

Commitment: Reduce greenhouse gas emissions from the Cruiser, on-demand service, and charter service by 15 percent from FY 2020 levels by July 1, 2025.

Lead Responsibility: Director of Purchasing, Director of Sustainability

The subcommittee would like to extend this commitment from the 2017 Bicentennial Plan. The Colgate Cruiser was responsible for approximately 260 tons emissions in Fiscal Year 2020 or 3.8 percent of Colgate's total emissions. While the Cruisers' overall emissions are minimal, its cost to the university is substantial. For this reason, the university needs to ensure that the Cruiser is operating in the most efficient way possible. Therefore, it is important for Colgate's Purchasing and Contracts Department to continue collaborating with First Transit Inc (Cruiser and On-Demand Service) and Wade Tours and Hale Transportation (Charter Service) to emphasize low-carbon operations that reduce Colgate's environmental and carbon impacts. Opportunities to improve sustainability while reducing carbon emissions include:

- Change fuel from gasoline and diesel to biodiesel, propane, electric, or compressed natural gas (CNG).
- Implement and enforce a no idling policy.
- Create efficient routes that maximize occupancy.
- Create maintenance schedules that prioritize fuel efficiency through routine tune-ups, optimal tire pressure, and well-cared-for equipment overall.
- Track fuel use, miles, emissions (especially greenhouse gas emissions) accurately and formalize how and when First Transit Inc. shares those data with Colgate.

Golf Carts

Commitment: Reduce Greenhouse Gas Emissions from the Seven Oaks golf cart fleet by replacing current gasoline fleet with all-electric golf carts by July 1, 2025.

Lead Responsibility: Director of Facilities Operations, Director of Purchasing, Director of Sustainability

Colgate currently uses over 60 gasoline golf carts at Seven Oaks. Over the next few years, the university will explore the feasibility and cost of installing charging stations and replacing our existing fleet with all-electric cart fleet.

Student Engagement

Commitment: Expand opportunities to further link student work study, academic experiences and on-campus operational practices.

Lead Responsibility: Director of Facilities Operations

Colgate University, and especially the Facilities Department, should continue to build on recent success and expand the hiring and involvement of student work study positions. Likewise, Facilities staff should continue to work closely with students on academic research projects which focus on specific areas of campus operations including energy tracking and management, waste management and recycling, and projects important for greenhouse gas reductions. The student educational experience can be enhanced when concepts of sustainability taught in the classroom are combined with opportunities for students to get involved with campus decision-making processes. Specifically, Facilities and Purchasing have created opportunities for students to become engaged in Colgate operations such as building design and construction projects, purchasing decisions and contracts, investment opportunities, introducing new technologies and innovations on campus among others.

Purchasing

Background

The goods and services that Colgate purchases have lifecycle environmental and social impacts far beyond campus. Colgate University budget managers and buyers are entrusted with the fiduciary responsibility to be good stewards of university funds while also supporting Colgate's longstanding commitment to environmental sustainability and carbon neutrality. Environmentally preferable purchasing guidelines help to ensure that the goods and services that we purchase balance cost and quality while exerting a positive influence on our environment, human health and well-being. Each purchasing decision presents an opportunity for Colgate community members to choose environmentally preferable products and services from vendors that support and are committed to environmental sustainability. The purchasing decisions the university makes can help support a more just and sustainable world and working environment.

Environmentally Preferrable Purchasing Policy

Commitment: Complete and fully communicate Colgate's environmentally preferable purchasing guidelines by July 1, 2022.

Lead Responsibility: Director of Purchasing, Director of Sustainability

Colgate's Purchasing Department in collaboration with managers and university buyers throughout campus, can work with vendors and suppliers to use our purchasing power to support a sustainable economy. Each purchasing decision presents an opportunity for Colgate community members to choose environmentally preferable products and services from companies that support sustainability.

Environmentally Preferable Purchasing Guidelines Include:

- Colgate University buyers should purchase Environmentally Preferable Products (including services) whenever they are of similar quality, cost, and perform at a satisfactory level always taking into account Life Cycle Cost.
- Colgate buyers should purchase products and services that are third-party certified or exceed environmental standards and specifications. Ecolabels, for example, help Colgate buyers identify and procure environmentally sustainable products and services that meet or exceed the university's sustainability goals and values. Sectors that offer sustainable third-party certified (ecolabels) products and standards include food service take-out containers and dinnerware, building and construction materials, custodial cleaners and disinfectants, computers and

electronic equipment, landscaping fertilizers/pesticides and deicing treatments, office supplies and furniture, just to name a few examples.
- Colgate University's Purchasing Department and Office of Sustainability will promote the use of Environmentally Preferable Products and services by working with office suppliers, food and dining service providers, transportation providers, contractors, and all other vendors to ensure that they offer high quality sustainable products and practices and communicate those options to all Colgate buyers in order to facilitate Environmentally Preferable Purchasing.
- Colgate's Purchasing Department prefers to secure contracts with suppliers and vendors that are environmental leaders in their respective markets.

A few examples of opportunities to purchase environmentally preferable products and services at Colgate include:

- Event Supplies: it is the university's preference to purchase containers and dinnerware that are reusable and made with recyclable, compostable, and/or bio-benign (plant-based) materials. If disposable items must be used, then the material should also be recyclable, compostable, and/or made with bio-benign (plant-based) materials.
- Drinking-Water: the university recommends the use of filtered water fountains or stations rather than purchasing bottled water.
- Computers and Electronic Equipment: the university standard is to purchase Energy Star and/or EPEAT registered computers and other electronics.
- Printer and Copier Paper: whenever documents or information cannot be shared online or in digital format, the university recommends the purchase and use of post-consumer content recycled paper and/or Forest Stewardship Council (FSC) certified paper. Printing should be avoided whenever possible and non-recycled (virgin) paper is discouraged.

Colgate University shall advance environmentally sustainable purchasing by following these guidelines and ensuring that Colgate's supply of products and acquisition of services (including construction) are:

- Energy-efficient (ENERGY STAR® or Federal Energy Management Program (FEMP)-designated);
- Water-efficient;
- Bio-based or plant-based;
- Environmentally preferable (e.g., EPEAT®-registered, or non-toxic or less toxic alternatives);
- Non-ozone depleting; or
- Made with post-consumer recycled materials.

Once Colgate's Environmentally Preferable Purchasing Guidelines are finalized, they need to be properly communicated to the campus community and all current and potential

suppliers. As a part of this, the Purchasing website needs to be updated with the latest guidelines and then find additional ways to educate buyers across campus with these expectations.

Vendor Code of Conduct

Commitment: Complete and fully communicate Colgate's vendor code of conduct by July 1, 2022.

Lead Responsibility: Purchasing Department

Colgate sets expectations that our vendors are to meet minimum standards of environmental and social responsibility. The goal is to influence and improve the sustainability of our supply chain. Besides our major office supply companies, shipping companies, and other retailers, this includes contractors and construction service companies who perform work on campus.

Paper Consumption and Purchasing

Commitment: Reduce paper consumption by 15 percent from FY 2020 volumes by July 1, 2025.

Lead Responsibility: ITS, Director of Purchasing, Office of Sustainability

Paper is an important component of Colgate University's educational mission. However, simple operational adjustments and educational resources supporting digital learning for the Colgate community can effectively reduce paper waste. A few examples include:

- Use paper wisely. Print only when necessary. It is estimated that nearly 45 percent of all printouts are disposed of before the end of the day.
- Encourage individuals to increase paper margins from the standard 1.0 inch setting to 0.5 inch margins.
- Print double-sided. Contact ITS (x7111) if you need assistance with getting your printer setup for duplex printing.
- Promote digital reading and notetaking. Encourage professors to move readings online and allow students to submit assignments online whenever possible.
- Clear print queues at print stations every 15 minutes.
- Support technologies and communicate best practices to faculty, staff and students to continue to use documents digitally instead of printing them for meetings and classes.
- Evaluate the opportunity to implement a small fee per printout after a quota is exceeded which may raise awareness and deter excess printing.

Commitment: All printer and copier paper purchased on campus will contain post-consumer recycled content or be from sustainably managed sources by July 1, 2022.

Lead Responsibility: Director of Purchasing, Director of Sustainability, Administrative Assistants

Printer and copier paper can have varying environmental and social impacts depending on how and where the paper is produced and manufactured. For this reason, purchasing office paper with post-consumer recycled content and/or paper that is sourced from well-managed forests or agricultural residue, is the most environmentally preferred paper.

Post-consumer recycled content paper is made from old products that previously had a useful purpose. Examples include the recycling of cardboard, cereal boxes, paper bags, and magazines that were used, recycled at the end of their life, and made into office paper. Paper with post-consumer recycled content is considered to have greater environmental benefits than products manufactured from pre-consumer recycled content. When given a choice, Colgate buyers should purchase paper and other items with at least 30 percent post-consumer recycled content is a viable alternative, although 100 percent post-consumer recycled paper is preferred.

In addition to post-consumer recycled content paper, office paper should be third-party certified for sustainably managed sources. For example, the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (FSC) are two widely recognized labels that can help ensure that the paper consumers purchase are from well-managed forests and supply chains.

Food and Dining

Background

The Colgate University community recognizes the significant environmental, health, labor, animal welfare, and climate change implications of food production and consumption. As a result, our university is committed to sourcing our food in a sustainable manner.

In recent years, Colgate has made considerable strides to advance sustainability in dining services, and the effort is ongoing. During the summer of 2010, a student-led effort resulted in the establishment of a 0.5-acre organic community garden on campus and trayless dining. At the same time, there was increased demand from students and faculty for more transparency and information regarding our food procurement practices and increased accessibility to local, healthy, and sustainable food options. As the “real food” movement continued to grow on college campuses across the country and especially at Colgate, the University’s President charged a Sustainable Food Systems Working Group in August 2013 to coordinate this effort.

After extensive interviews and research, the group made a set of recommendations to the senior administration in February 2014. Specific recommendations included:

1. Forming an ongoing Advisory Group to monitor long-term progress and provide cross-departmental support in advancing sustainability in dining services.
2. Hiring a full-time manager of sustainability in dining services to evaluate, monitor, and advance sustainability in dining services.
3. Providing a complete assessment of Colgate’s local, community-based, and third-party certified food purchases and propose an institutional goal for purchasing sustainable foods.
4. Making sustainability an emphasis of dining services contract renegotiations in 2015, especially as it relates to direct, local procurement from farmers and producers.

The Working Group's proposal was well received and soon after we form the Advisory Group, hired a manager of sustainability in dining services, contracted a new dining services provider (Chartwells) to help us fulfill our sustainability goals, and began benchmarking and tracking our food procurement practices begun.

Over the last five years, the Advisory Group has evolved into various committees working on: food procurement tracking, waste related to catered events, and fostering partnerships with local farmers.

Food Procurement

Supporting sustainable food systems, Colgate and Chartwells can play a large role in combating global climate change and supporting more equitable and just working conditions around the world. To this end since 2016, Colgate and Chartwells have worked towards tracking sustainable food procurement practices.

Commitment: Begin a full, formal assessment of our sustainable food and beverage[4] by August 1, 2021 and establish a goal to increase the purchase of sustainable food and beverage by 15% from our 2021 baseline by 2025.

Lead responsibility: Sustainability Liaison in Dining Services, Dining Services Advisory Groups, and Office of Sustainability.

Presently, Chartwells and the Office of Sustainability are realigning procurement goals to reflect AASHE STARS 2.2 guidelines, recommending the increased purchasing of:

- Sustainably or ethically produced food and beverage (Appendix A)
- Plant-based food (Appendix B)

Colgate's key metric for tracking sustainable food is U.S. dollars spent on aforementioned categories as a percentage of our overall food purchases. This metric is consistent with AASHE STARS 2.2 and many other institutions that are advancing local and sustainable food procurement on campus.

Waste

As outlined in the Waste Management and Procurement section, Colgate is working to become a zero-waste and plastic-free campus by 2030. To do this, Colgate and Chartwells are working together to reduce food waste and waste related to dining operations.

Commitment: Determine a food waste tracking system by August 2021 and implement programs to reduce food waste by 15% by 2025.

Lead responsibility: Sustainability Liaison in Dining Services, Dining Services Advisory Groups, Facilities, the COVE

[4] We define sustainable foods as sustainably or ethically produced and/or plant-based foods as outlined by AASHE STARS.

While the introduction of composting (as outlined in the Waste Management and Procurement section) will help to reduce food waste sent to the landfill, we find it equally important to reduce food waste from its source. We plan to explore food recovery programs and examine campus dining operations to reduce the amount of safe and edible food that is composted or landfilled.

Commitment: Eliminate one-time use disposable plastics (including biodegradable plastics) in Dining Services and all catered events by August 2025 to align with plastic-free and zero waste goals.

Lead responsibility: Sustainability Liaison in Dining Services, Chartwells Catering Director, and Chartwells Purchasing Manager

In addition to reducing food waste, it is important to consider other forms of waste that result from campus dining operations. Single use plastic utensils, cups, and containers cannot be recycled and generate landfill waste and contribute to plastic pollution. Eliminating single-use disposable plastics from our dining operations will move our campus one step closer to our plastic-free and zero-waste goal.

Utilities and Operations

Dining operations are water and energy intensive. To do our part to mitigate this impact, Colgate and Chartwells will work together to assess utility usage at campus dining locations and increase energy and water efficiency wherever possible.

Commitment: Complete a sustainability audit of dining-related water and energy consumption by September 1, 2022 and work to reduce water and energy usage by 5% by 2025.

Lead responsibility: Sustainability Liaison in Dining Services and Office of Sustainability

When exploring energy and water reduction strategies, as well as other dining sustainability measures, Chartwells and Colgate will explore existing frameworks and standards such as the Green Restaurant Association, to guide decision-making.

Colgate Community Garden

The 2020 growing season marked six years since the garden was relocated to the Broad Street location from its original location at the Newell Apartments on College Street. Upon relocation, the land was owned by Colgate but has since been sold to the Good Nature

Farm Brewery. To best serve its mission and educate the Colgate Community, it is essential to relocate the garden once again to a permanent home on Colgate property.

Commitment: Relocate Colgate's Community Garden to a new on-campus location by April 1, 2022.

Lead responsibility: Director of Sustainability, Colgate Community Garden Manager, and Facilities.

In order to fully meet the garden's mission, the following features and goals should help guide and plan the garden's relocation and new design:

- Expand composting at the garden that is further connected to students and Colgate community members potentially using food scraps from dining halls. Finished compost can be used to augment the garden soil or applied to campus landscaping.
- Foster a stronger and more formal connection with Colgate's curricular and co-curricular activities. An outdoor classroom, pavilion, or the house on property can be used as a "garden classroom" where faculty can utilize indoor or outdoor space. An experimental or research section of the garden can be allocated for faculty and classroom use.
- Showcase the garden as a living lab for environmental sustainability. The garden project should incorporate rainwater collection systems, a soil health monitoring program, green roofs and renewable energy when and where possible. The garden could be an experimental space for students, faculty, staff, and community members to come to learn about what options there are for small-scale gardening and sustainable ventures.

Ecosystems and Land Stewardship

Background

Colgate owns more than 2,000 acres of land of which 553 acres include the campus proper, 1,059 acres are managed forests, and 389 acres are leased to local farmers. The campus proper includes Colgate's buildings on upper, middle, and lower campus, Taylor Lake, the Seven Oaks Golf Course, and nearly 3,000 inventoried trees. The Chenango Valley provides a scenic backdrop for Colgate's beautiful campus and historic stone buildings. According to the 2010, 2014, and 2015 editions of the
Princeton Review, Colgate was ranked #1 for having the most beautiful campus in the country.

Colgate University recognizes the importance of well-managed forests (both locally and globally) in providing critical wildlife habitat, essential ecosystem services, and in addressing global climate change. As such, we manage our forests with care and environmental stewardship. Colgate's 2007 Forest and Open Lands Stewardship Plan and 2018 Forest Carbon Inventory and Projections report emphasize long-term sustainable forestry management that:

- enhances our academic mission through research and teaching;
- provides aesthetic value and ongoing recreational opportunities;
- provides revenue through timber and biomass energy production;
- provides essential ecosystem services such as clean air, water, and healthy soils;
- protects the diversity and health of the plants and animals that inhabit our forested lands; and
- increase rates of forest carbon sequestration.

Historically, existing forests have not been given serious consideration in addressing carbon neutrality goals on college and university campuses. At Colgate University, we recognized that carbon storage and annual sequestration is among the many assets provided by Colgate's forested lands. Quite simply, sustainable forest management and protection is critically important in overcoming the climate crisis. In 2014, Colgate's 1,059 acres of forested land received American Tree Farm System certification, verifying our high-level commitment to environmental stewardship and sustainable forest management. As a result of our forest stewardship and carbon sequestration work on campus, Colgate has emerged as a national leader in this field.

Likewise, Colgate recognizes the importance of maintaining our campus proper with sustainable practices in mind. Colgate's Grounds Department consists of 19 permanent employees who are mainly responsible for the maintenance of the main campus including upper and lower campus, the residential and Greek Letter Organization houses along

Broad Street, and several outlying properties. This includes miles of roads, 2,500 parking spots, hundreds of acres of mowed lawn, flowerbeds, shrub beds, mulching, and campus trees. The Grounds Department is also charged with the maintenance of numerous Division I athletic complexes and fields including numerous turf and grass playing fields, three sports complexes with gymnasiums, outdoor tennis courts, a softball field, 5K and 8K cross-country trails, 400-meter outdoor track & field area, and an indoor turf and track complex. The outlying properties consist of the university bookstore, downtown administrative offices, the Bewkes conference center and lakefront grounds, Schupf Art Studio, the Murphy site along Hamilton Street, the trap range, and Beattie Reserve. Needless to say, our Grounds Department accomplishes an incredible amount of work and are some of the most skilled and hardest working people on campus. Advancing sustainable practices in regards to grounds maintenance, must consider impacts on our Grounds Department and involve the forepersons and Facilities management in all decisions.

Some sustainable practices can reduce labor and free up resources. For example, as a result of our 2011 Sustainability and Climate Action Plan, Colgate introduced approximately 30 acres of campus grounds into a “no-mow” concept. This included parts of the old golf course, portions of the cross country ski trails and the old ski hill, and an area south of the Colgate Townhouses. As our Grounds team reduced the frequency of mowing, there was a reduction in labor hours and fuel usage. The reduction in mowing time resulted in a savings of roughly 20 gallons of fuel per week and hours of labor. This practice also reduced water runoff and flooding to lower campus from heavy rain events while at the same time increasing wildflowers, pollinators, and overall wildlife value.

Over the decades, Colgate lost most of its trees on the main campus to age and disease. Most of these trees were not replaced. Historic photos in and around our academic buildings offered a stark contrast to the lack of trees in modern times. Under President Brian Casey’s leadership, the university began the process of planting 461 trees between the spring of 2018 and 2020 to restore the tree canopy and historic beauty of Colgate’s campus proper. Over the years, these trees will offer more than grandeur and aesthetic beauty. They provide social spaces and will reduce heating and cooling costs for campus buildings. The trees also soak up water during heavy rain events and provide important habitat for native and migrating bird species and other wildlife.

These are just a few of the successes we can build upon in the years to come.

Forest Carbon Storage and Sequestration

Commitment: Complete a Re-measurement of Colgate's Forested Lands For Carbon Storage and Sequestration by July 1, 2024.

Lead Responsibility: Director of Sustainability, Campus Forester

In 2013, Colgate completed its first forest carbon inventory fieldwork and measurements. Permanent sample plots were established and tree measurements were taken to establish a baseline for future work. Then, in 2018, Colgate returned to each of the 174 sample plots created in 2013 to undertake a full re-measurement. Changes in forest structure and individual tree growth were recorded. We were able to calculate stored forest carbon and the annual rate of carbon sequestration by comparing the changes over the 5-year interval.

Through this research and corresponding field measurements, we determined that our 1,059 acres of forests contained 193,755 tons of stored carbon while sequestering an additional 3,785 tons of carbon annually. The goal of re-measurement is to update the annual rates of carbon sequestration in the permanent sample plots established in 2013 and in 2018. Our next re-measurement is scheduled for 2023.

Campus Tree and Land Stewardship

Commitment: Update Colgate's Campus Tree Inventory by July 1, 2022.

Lead Responsibility: Director of Sustainability, Landscape Project Manager, Bartlett Tree Services

It's been over 10 years since the nearly 3,000 trees on Colgate's main campus have been inventoried. Without this work, we lack insight into proper tree care and management. The university also loses important educational value as the tree inventory provides a database of the number, species, age, condition, and value of each tree on campus. Most importantly, the updated Campus Tree Inventory should include the 461 trees recently planted for the Bicentennial Landscape Project as well as the trees planted with the construction of Benton, Burke, and Pinchin Halls.

Commitment: Establish a Grounds Maintenance Benchmarking and Tracking Tool by July 1, 2022.

Lead Responsibility: Director of Facilities Operations, Facilities Grounds Department, Director of Sustainability

Colgate currently tracks the amount of fertilizers used on campus grounds, athletic fields, and the Seven Oaks Golf Course through our annual greenhouse gas inventory. However, other grounds maintenance practices remain largely unknown by some managers and the broader campus community. For example, the amount, timing, and types of pesticide and herbicide use, soil health testing and management, the type and application of mulch, and the maintenance of campus trees. In the winter, the application of deicing treatments can have negative impacts on our landscape, watershed, campus vehicles, and roads and building infrastructure. Establishing metrics while creating an ongoing process for benchmarking and tracking these practices is a helpful first step to maintenance that balances labor, cost, safety, aesthetics, and environmental impacts.

Commitment: Establish a Soil Testing Program and Tracking System by July 1, 2022.

Lead Responsibility: Director of Sustainability, Landscape Project Manager, Bartlett Tree Services

Monitoring and improving soil health can significantly reduce labor and ongoing maintenance costs. Routinely testing soil conditions can help determine more precise biological and nutrient requirements and can potentially avoid widespread application of various treatments. Furthermore, healthy soils create deeper root systems and more resilient and vibrant plants. Understanding that soil health creates plant health is a solid guiding principle to help manage our campus grounds with efficiency and environmental sustainability in mind.

Commitment: Achieve Tree Campus Higher Education Certification Through the Arbor Day Foundation by July 1, 2022.

Lead Responsibility: Director of Sustainability, Landscape Project Manager, Bartlett Tree Services

Colgate University is a good steward of our campus trees. With the completion of the Bicentennial Landscape Project and the planting of over 200 new trees, Colgate is also well-positioned to receive the Arbor Day Foundation's Tree Campus designation. Doing so would not only provide focused attention on our campus trees, but would also instill a greater sense of pride in our campus community.

Currently, there are roughly 30 college and university campuses that have achieved Tree Campus recognition including both Cazenovia College and Morrisville State College in Madison County.

In order to achieve Tree Campus certification, Colgate would need to meet Arbor Day's five standards:

1. Establish a Campus Tree Advisory Committee
2. Develop a Campus Tree Care Plan
3. Verify dedicated annual funding to support the Campus Tree Program
4. Involvement in Arbor Day Observance
5. Participate in a Service Learning Project aimed at engaging the student body

Commitment: Explore Opportunities to Remove an Additional Five (5) Acres Out of a Weekly Mowing Regime by July 1, 2024.

Lead Responsibility: Director of Facilities Operations, Facilities Grounds Department, Director of Sustainability, Landscape Project Manager

Pollinator gardens, rain gardens, and/or creating more naturalized landscaping are effective and attractive ways to reduce mowed lawn and enhance the ecological value. Furthermore, the design and implementation of carefully located gardens can involve student research and community service. Any project proposal should work closely with the Grounds Department to ensure that ongoing maintenance is manageable and costs are minimized.

Commitment: Continue with Preventative Treatment and Care of Vulnerable Tree Species on Colgate's Main Campus.

Lead Responsibility: Landscape Project Manager, Director of Sustainability, Bartlett Tree Services

The Emerald Ash Borer (EAB) has been confirmed in the Village of Hamilton. This invasive species targets and eventually kills ash trees unless intervention takes place. The same is true of Colgate's majestic elm trees. These select species and others should be identified and preventative care should be administered to protect these magnificent campus assets.

Financing

Background

Achieving carbon neutrality in 2019 was a major accomplishment and milestone. Maintaining Colgate's commitment to carbon neutrality, however, requires ongoing investment. Colgate must continue to find creative and innovative solutions to finance campus projects that will reduce energy and resource consumption while lowering operating costs over time. The ultimate goal, of course, is to invest in projects and technologies that reduce and eventually eliminate Colgate's campus carbon footprint. While sustainability has practical value, good projects are often delayed because of annual operating pressures and high implementation costs. These barriers can halt momentum and stall progress. Therefore, expanding established financial structures and actively pursuing new ones remains an important opportunity to advance sustainability on campus.

Over the last 10 years, Colgate has made significant progress in establishing mechanisms to finance sustainability. In September 2012, for example, the university created the Sustainability and Climate Action Reserve with an initial investment of $365,500. This money was used to help finance projects approved in Colgate's inaugural 2011 Sustainability and Climate Action Plan. The university added $85,000 to the Reserve the following year. The Reserve helped to finance lighting upgrades, recycling stations, a solar thermal array, and an electric vehicle charging station among other projects. However, savings from initial investments were never recouped and the Reserve's balance lost value over time.

In 2017, the Sustainability Council completed Colgate's Bicentennial Plan for a Sustainable and Carbon Neutral Campus, an update to Colgate's 2011 climate action plan. One of the key recommendations in the plan was to augment the Sustainability and Climate Action Reserve by creating the new Green Revolving Loan Fund (GRLF) at Colgate University.

The GRLF was officially launched in 2018 with an additional $800,000 contribution by the university to seed the fund. Colgate's newly created Green Revolving Loan Fund (GRLF) was specifically earmarked for energy efficiency, renewable energy, and other sustainability projects that generate cost-savings over time while reducing Colgate's carbon and ecological footprints. Savings are tracked and reinvested into the fund so the next round of sustainability projects can be financed. The GRLF grows over time because each investment is repaid in full plus 20 percent.

The GRLF committee (a working group of the Sustainability Council) was formed to evaluate project proposals, determine which projects to fund, ensure that projects repay

the GRLF from identified cost savings, and provide annual updates on the status of the fund and projects supported by the fund.

As the fund grows and becomes more established, the Green Revolving Loan Fund Committee may expand and change its structure.

Green Revolving Loan Fund Expenditures

Through FY 2020, after three full years of implementation, the GRLF has financed four projects with a total investment of $723,858 (Table 2). Projects included an upgrade to our biomass delivery and handling system, energy switching from fuel oil to natural gas in the Townhouses, and lighting upgrades in Starr Rink and Cotterell Court.

Table 2: Projects financed by the GRLF through the end of FY 2020

Project	Fiscal Year	Investment
Biomass Delivery & Handling	2018	$400,000
Townhouse Gas Conversion	2018	$255,851
Starr Rink Lighting	2019	$16,000
Cotterell Court Lighting	2020	$52,007
TOTAL		**$723,858**

Green Revolving Loan Fund Income

The GRLF has benefited from generous contributions from Colgate alumni and community members. Since its inception, a combined total of $218,878 has been gifted to the Fund (Table 3).

Table 3: Annual donations to the GRLF since its inception

Fiscal Year	Gifts Received
2018	$3,877
2019	$82,680
2020	$132,321
TOTAL	**$218,878**

Since the inception of the GRLF, a combined total of $308,194 has been returned to the Fund from energy savings from the four projects (Table 4).

Table 4: Annual energy savings returned to the GRLF since its inception

Fiscal Year	Energy Savings Returned
2018	$0
2019	$132,803
2020	$175,391
TOTAL	**$308,194**

FY 2020 End-Of-Year Fund Balance

FY 2020 began with a fund balance of $467,516. Adding FY 2020 inflows of $312,705 from gifts, energy savings returns, and project true-ups resulted in a year-end closing balance of $780,221 (Table 5).

Table 5: FY 2020 End-of-Year Balance

Beginning Balance (as of July 1, 2019)	**$467,516**
FY 2020 Gifts to the Fund	$132,321
FY 2020 Energy Savings Returned to the Fund	$175,391
FY 2020 Project Costs (True-up)	$4,993
End-of-Year Balance (as of June 30, 2020)	**$780,221**

Payback and Carbon Reductions

As stated above, a basic expectation of Colgate's GRLF is to produce sufficient energy savings to repay project costs to the fund and to provide long-term relief to Colgate's operating budget. At the same time, the Fund aims to finance projects that reduce our campus carbon footprint. To date, the average payback of those four projects is 6.0 years (Table 6).

Table 6: Green Revolving Loan Fund Average Payback (years)

Project	Payback (Years)
Biomass Delivery & Handling	4
Townhouse Gas Conversion	9
Starr Rink Lighting	5
Cotterell Court Lighting	6
Average Payback (Years)	**6**

Finally, the four GRLF projects have resulted in a total reduction of 2,322 metric tons (MTeCO2) of greenhouse gases (Table 7).

Table 7: Greenhouse Gas (GHG) Reductions in Metric Tons of Carbon Dioxide Equivalents (MTeCO2)

Project	**GHG Reductions (MTeCO2)**
Biomass Delivery & Handling	1,932
Townhouse Gas Conversion	273
Starr Rink Lighting	45
Cotterell Court Lighting	72
Total GHG Reductions (MTeCO2)	**2,332**

In addition to the GRLF, Colgate has also benefited from several opportunistic sustainability grants, rebates, and incentives available at the federal, state and local levels. For example, Colgate received rebates from the New York Municipal Power Authority (NYMPA) for lighting upgrades in Sanford Field House and Huntington Gymnasium, a grant to purchase custom-made Landmark recycling stations from the New York State Association for Reuse, Reduction, and Recycling (NYSAR3), as well as a New York State Energy, Research, and Development Authority (NYSERDA) grant that covered half the cost for the installation of the solar thermal array at 100 Broad Street and the installation of the electric vehicle charging station on Lally Lane.

Within the past year, Colgate received a grant from the Keep America Beautiful campaign to provide over 100 new recycling bins for campus events and the university received a grant from Second Nature to further develop local climate resilience and adaptation work. In total, these financing opportunities have provided us with extra incentive to implement projects and reduce our campus carbon footprint when it may not have been financially feasible otherwise.

The Path Forward

Building off these successes, the following strategies align with past efforts and will ensure future investments in sustainability are pragmatic, opportunistic, and self-sustaining.

Commitment: Continue utilizing the Green Revolving Loan Fund (GRLF) to finance campus sustainability projects.

Lead responsibility: Sustainability Council.

The GRLF is at its best when the university is routinely investing in new projects while also receiving returns from savings from previous projects. This helps to ensure a healthy fund balance while also making an ongoing impact in operational efficiency and reduced carbon emissions. Additionally, the fund continues to benefit from alumni who donate to contribute to a more sustainable Colgate. Taken together, we anticipate that the GRLF will continue to grow and finance ever more projects in the years ahead.

It will be the work of the GRLF Committee in collaboration with other campus stakeholders to determine the best possible way to identify, evaluate, and invest in new projects in the years ahead. With this being said, the Sustainability Council and the GRLF Committee hope to expand the awareness of the GRLF and solicit project ideas from a broader range of campus stakeholders.

Commitment: Explore federal, state and local funding opportunities, ongoing.

Lead responsibility: Sustainability Council.

Colgate's robust and reputable sustainability program places us in a solid position to take advantage of existing and emerging grants, rebates, and incentives. In 2019, for example, New York State passed the Climate Leadership and Communities Protection Act, Plastic Bag Waste Reduction Law, and Food Donation & Food Scraps Recycling Law. These ambitious laws promise to unleash public and private financing opportunities and Colgate is well-positioned to take advantage of these. Similarly, as a result of the 2020 presidential election, the United States is recommitted and refocused on climate mitigation and adaptation. The Sustainability Council must remain vigilant to new financing opportunities that are sure to emerge, and the nation commits to climate action.

At the local level, there are potential projects in which it would make sense to partner with the Village and Town of Hamilton. For example, NYSERDA's Climate Smart Communities Program encourages communities to create public-private partnerships and develop local sustainable growth strategies in such areas as carbon emissions control, energy efficiency, renewable energy, low-carbon transportation, and other carbon reductions. Federal Environmental Protection Agency (EPA) programs are often targeted for municipalities and might provide opportunities for a partnership. Colgate must continue to explore carbon reductions where it makes sense to partner with our municipality.

Climate Ready: Resilience and Adaptation

Background

Over the past few decades, Central New York has been hit hard by the impacts of climate change. Here in Madison County, for example, there have been 17 federally declared climate-related disasters since the year 2000.[5] While averaging nearly one climate-related disaster in our county per year is staggering and certainly disruptive, there promise to be increased impacts in the years ahead. Why? Because the atmospheric greenhouse gases that cause climate change work on a time delay. In other words, the climate impacts that we are experiencing today are the result of emissions from decades ago.[6] For this reason, we are locked into future and more intense impacts. Our climate of the future will be intensifying summer droughts punctuated by heavy rain events, flooding, heat waves, severe storms, and significant shifts in natural seasonal cycles. Our changing climate will impact life in Central New York and on-campus operations potentially disrupting our academic mission in profound ways. These include but are not limited to:

- Food supply systems and costs
- Emergency budgets and financing
- Buildings and infrastructure maintenance
- Energy/water supplies and power outages
- Infectious disease and human health
- Loss of ecosystems services, biodiversity, and impacts to our campus landscape
- Stresses to local businesses and the well-being of our regional economy

Assessing these impacts and preparing for climate change will not only buffer the degree to which Colgate is impacted but will also create new opportunities such as strengthening campus and community relations, building community resilience, and reducing ongoing risks and expenses. Preparing for near-future disruptions and long-term trends will help ensure that Colgate continues to thrive in an era of unprecedented climate change.

Climate resilience is commonly defined as the ability of a system or community to survive climate disruption and to anticipate, adapt, and flourish in the face of change.[7] The main goal of climate resilience is to enhance adaptive capacity by being flexible, open to new ideas, inclusive, and operationally efficient. Therefore, the foundation of a strong climate resilience program must follow a solid framework, produce well-informed guiding

[5] *FEMA Disaster Declarations for States and Counties*

[6] *Solomon, et al. Irreversible climate change due to carbon dioxide emissions. PNAS February 10, 2009*

[7] *Second Nature's definition of resilience*

documents, and be based in principle to aid current and future decisions. This is where Colgate excels as exemplified by our progress so far.

Progress and Recent Accomplishments

Fortunately, Colgate's efforts in climate resilience and building adaptive capacity formally started several years ago. A few examples include:

- Reducing campus carbon emissions and climate resilience often go hand-in-hand. For example, switching to renewable energy, such as the installation of ground-source heat pumps in Chapel House, not only reduces our campus carbon footprint but also means we are less dependent on external supplies of energy. Likewise, when we use resources more efficiently, we buffer ourselves from the risk and vulnerability of resource supply chains and fluctuating prices. By advancing campus sustainability, Colgate has in effect, built up its institutional resilience to climate change.
- Colgate and the greater Hamilton community are dependent on one another to ensure a rich and vibrant future. The university and the community are both dependent on the same infrastructure and supply systems (energy, water, food, transportation, retail businesses and services, happy and healthy social structures, etc.) that allow each to thrive. When these systems are disrupted, the entire community, including Colgate, suffers. For this reason, both the university and the Town and Village of Hamilton are stronger when we cooperate and work together to build climate resilience. Recognizing this, Colgate University in partnership with Town and Village officials launched the Hamilton Climate Preparedness Working Group in April of 2016. The Working Group researches, plans, and promotes policies and programs in response to existing and future impacts of climate change. In the spring of 2020, both the Town and Village of Hamilton were designated Climate Smart Communities by the New York State Department of Environmental Conservation. This designation recognizes the impressive accomplishments our community has achieved in preparing for climate change.
- In the spring of 2019, students in Professor Ian Helfant's ENST 390 course completed an initial vulnerability and climate resilience assessment for Colgate University. While more work needs to be done, this was a great step forward in completing a necessary and important assessment for the university's climate resilience program.

Building community resilience takes time and is a long-term commitment. Despite these recent accomplishments, Colgate is still at the front end of being a climate resilient campus. Here we've identified the next steps in our journey.

Commitment: Sign Second Nature's Climate Resilience Commitment by April 22, 2021.

Lead responsibility: Office of Sustainability, Sustainability Council.

Second Nature provides a solid framework, resources, and a strong network of collaborative leaders to support Colgate's journey to climate resiliency. Besides providing structure, signing Second Nature's Resilience Commitment will officially launch our public commitment to this work as we join dozens of other higher education leaders.

Commitment: Complete a final resilience assessment by April 22, 2022.

Lead responsibility: Office of Sustainability, Sustainability Council.

Building resilience starts with assessing Colgate's exposure and sensitivity to imminent climate change. Evaluating the degree to which our natural, social, and economic systems will be impacted and understanding our vulnerability to these changes is an essential step in evaluating our climate preparedness and overall risk. Besides identifying our current vulnerability, the resilience assessment should also establish metrics and indicators to track progress over time.

Commitment: Complete a comprehensive climate adaptation plan by April 22, 2024.

Lead responsibility: Office of Sustainability, Sustainability Council.

Once we complete our vulnerability and resilience assessments and have a better understanding of local risks associated with climate change, it is time to complete an adaptation plan. The adaptation plan should include specific actions that will help build adaptive capacity. Communities and institutions with high adaptive capacity minimize risk and are better prepared to deal with climate change impacts.

All of this work requires Colgate to work in partnership with the Town and Village of Hamilton.

Carbon Offsets

Background

Carbon offsets are investments in off-campus projects that reduce, remove, or avoid greenhouse gas (MTeCO2) emissions. Offsets serve to counterbalance emissions from on-campus activities. Carbon offset projects come in many forms but generally fall into two broad categories: 1) projects that replace or avoid emissions, such as the construction of a solar or wind farm to replace a coal-fired power plant or an avoided deforestation project that prevents the release of stored tree carbon into the atmosphere, and 2) projects that sequester or remove greenhouse gasses from the atmosphere, such as reforestation that absorb atmospheric carbon as the trees grow.

While implementing on-campus projects that reduce Colgate's gross emissions remains Colgate's top priority, the university must also invest in carbon offsets to maintain the university's commitment to carbon neutrality. Significant sources of emissions such as air travel, commuting, ground transportation, and some forms of energy use are currently impossible to eliminate without extraordinary cost or disruption to our academic mission. Purchasing offsets demonstrates that the university accepts responsibility for its operational impact on global climate change. Investing in offsets also creates a financial incentive to reduce Colgate's emissions. This incentive could spur innovation and mitigation efforts on campus and reduce the need to purchase future offset on an annual and ongoing basis. By achieving carbon neutrality, Colgate acknowledges its contribution to climate change through its own operations and takes accountability for that impact by 1) reducing emissions on campus and 2) reducing emissions elsewhere, that is, investing in high-quality carbon offsets.

Even though Colgate’s campus carbon footprint has trended lower since our high of 17,821 MTeCO2 in 2009, it still fluctuates from year to year depending on campus operations, the severity of the winter, and many other factors. For example, a harsh winter coupled with a planned upgrade of our wood boiler caused an uptick of our campus carbon footprint in 2019 to 11,440 MTeCO2. Alternatively, our campus carbon footprint dropped in 2020 to 6,683 MTeCO2 due to the global pandemic and the nearly complete shutdown of campus operations. As a result, the number of carbon offsets needed annually also fluctuates.

There are hundreds of potential offset projects to invest in both domestically and across the globe. Projects vary by location, quality, type, environmental/social co-benefits, and vintage dates. Depending on these factors, offsets range in price from around $1 per ton to over $40 per ton. Either way, Colgate must remain within its annual budget for carbon offsets which is currently $80,000.

The Carbon Offsets Working Group and Recent Offset Purchases

Deciding what projects to invest in can be complex and nuanced. In order to help guide Colgate's carbon offset purchases and remain transparent, the Sustainability Council formed the Carbon Offsets Working Group to research available options, communicate these options to the Colgate community, and solicit campus-wide feedback. Ultimately, the Working Group is charged to make a final recommendation to the Sustainability Council and Colgate's leadership based on their process and campus feedback. Over the past few years, the Working Group has been comprised of faculty, students, and staff.

In 2018 and 2019, the Carbon Offsets Working Group led an exhaustive process and outreach campaign that included, but was not limited to, campus-wide feedback surveys and open forums, small group discussions, interactive brown-bag seminars, student-led open forums, presentations at all-faculty meetings, semester-long research from students in ENST 390, feedback from offset brokers and consultants, and research from other institutions.

Based on this feedback, the Working Group recommended investing in a diversified portfolio of offset projects that include

- local, New York State-based projects;
- projects that include value-added co-benefits such as ecological, social, and community-based benefits; and
- a mix of project types such as forestry-based, renewable energy, and methane capture.

Throughout this process, the Carbon Offsets Working Group evaluated over 100 projects from nearly 20 different suppliers. To assist the Working Group in this process, project descriptions were provided by each supplier. Additionally, we asked suppliers to identify which of the 17 United Nations' Sustainable Development Goals (SDGs) their projects addressed. After screening these projects for location, project type, co-benefits (social, educational, and ecological), and cost, coupled with the feedback the Working Group received from the community, Colgate is able to make an informed decision about what projects to invest in. Based on these recommendations, the university made the following carbon offset purchases in 2019 and 2020.

Table 8: 2019 Carbon Offset Purchases

Project Name	**Location**	**Standard**	**SDGs Met**	**Offsets Purchased (tons)**
Seneca Landfill Gas to Energy Project (Methane Capture)	United States - Waterloo, NY	ACR	6	3,500
May Ranch Avoided Conversion Project (Grasslands Preservation)	United States - Colorado	CAR	5	1,000
Rimba Raya Biodiversity Reserve (Avoided Deforestation - REDD+)	Indonesia	VCS, CCB	13	1,000
Danjiang River Solar Cookers (Solar Cookstoves - Household)	China	Gold Standard	5	1,000
Patagonia Nature Preserve (Reforestation)	Chile - Patagonia	VCS	5	5,000
Total				**11,500**

The average cost per carbon offset purchased in 2019 was $7.76 per ton.

Table 9: 2020 Carbon Offset Purchases

Project Name	**Location**	**Standard**	**SDGs Met**	**Offsets Purchased (tons)**
Seneca Landfill Gas to Energy Project (Methane Capture)	United States, New York	ACR	-	3,500
Crow Lake	United States, South Dakota	VCS	3	1,500
Danjiang River Solar Cookers, China (GS)	China	Gold Standard	5	1,000
Avoided Deforestation Brazil (REDD+)	Brazil	VCS, CCBS Gold Level	8	1,500
Total				**7,500**

The average cost per carbon offset purchased in 2020 was $3.98 per ton. The Carbon Offsets Working Group prioritized lower cost offsets in 2020 while also including environmental and social co-benefits. The emphasis on cost in 2020 was to help the university overcome the financial setbacks due to the COVID-19 global pandemic. More information about Colgate's Carbon Offset Purchases can be found here.

The Path Forward

The Carbon Offsets Working Group, or a similar group of faculty, students, and staff, should continue its work for the foreseeable future. The Working Group should remain open and responsive to best practices, an ever-evolving offsets market, emerging trends, and changing protocols. Based on the Working Group's extensive research, analyses, and community feedback highlighted above, the Carbon Offsets Working Group, the Sustainability Council, and the Office of Sustainability recommend the following approach and commitments for purchasing carbon offsets going forward.

Commitment: Carbon offsets should be purchased on an annual basis after Colgate's GHG inventory is finalized for the previous fiscal year.

Lead Responsibility: Sustainability Council, Carbon Offsets Working Group, Director of Sustainability

In order to accomplish this goal, a request for information to offset suppliers should be sent during the early portion of the fall semester. Once offset options and pricing are received, the Carbon Offsets Working Group should begin the process of screening options preferable for Colgate. Ideally, offset purchases will be decided and contracts signed before the end of each calendar year in order to achieve carbon neutrality for the previous fiscal year.

Commitment: Purchase renewable energy certificates (RECs) or green tags each year to offset 100 percent of Colgate's annual electricity consumption.

Lead Responsibility: Sustainability Council, Carbon Offsets Working Group, Director of Sustainability

Renewable energy certificates (RECs) or green tags are specifically designed to mitigate (offset) scope 2 emissions from electricity generation and consumption. RECs are characterized by the creation of renewable electricity whereby clean energy production displaces or reduces demand for more traditional carbon-intensive forms of energy. More specifically, RECs represent the environmental benefits (or attributes) received by the

displacement of conventional fuel use, such as coal, oil, or natural gas. One REC is representative of one megawatt-hour (MWh) of electricity (1,000 kilowatt-hours) and allows the purchaser to support renewable energy production even though they themselves may not directly receive the renewable power generated. Purchasing third-party certified RECs (such as Green-e) is a best practice for institutions such as Colgate to mitigate their impacts associated with electricity consumption. They support renewable electricity generation while achieving carbon neutrality.

In 2019, for example, Colgate purchased 31,809 MWh's of RECs through Greenlight Energy Group because they offered Green-e certified RECs at the lowest cost with the greatest carbon impact and social benefits. Greenlight was founded in 2011 as the first woman-owned renewable energy marketing company in the U.S.

Commitment: The Carbon Offsets Working Group should help lead an extensive campus-wide outreach and feedback process once every three years commencing again in the spring of 2022.

Lead Responsibility: Sustainability Council, Carbon Offsets Working Group, Director of Sustainability

Conducting campus-wide outreach and engagement every three years ensures that every student has the opportunity to provide feedback before they graduate. The frequency will diminish potential burnout in the process (e.g., survey and meeting fatigue) but frequent enough to take advantage of new and emerging opportunities in the offset market. This high level of engagement provides transparency into the process as well as an opportunity for the community to learn more about carbon offset markets and Colgate's commitment to carbon neutrality.

In the years between broad campus outreach and engagement, the Carbon Offsets Working Group should continue to base their decisions on the feedback they received from the campus community.

Commitment: Use a portion of Colgate's offset budget to invest in carbon offset projects here in Madison County or in the Town or Village of Hamilton before January 1, 2023.

Lead Responsibility: Sustainability Council, Carbon Offsets Working Group, Director of Sustainability

The Colgate community has expressed clear interest in investing in local carbon offsets projects, based on feedback the Working Group has received from surveys, discussion

groups, and open forums. Fortunately, Second Nature's Carbon Offset Guidance states that higher education institutions can purchase local, non-certified offsets to cover their scope 3 emissions up to 30 percent of their total campus carbon footprint. These guidelines present an opportunity for Colgate to invest in projects that benefit local residents or businesses in our own community. Organizations like the Finger Lakes Climate Fund help identify low-to-moderate income families who would benefit from renewable energy or home energy efficiency projects in our community. Families benefit from increased comfort and reduced home energy bills and Colgate would benefit by obtaining the credits for the carbon reduction. Another added benefit is improved community relationships by investing locally.

As the Carbon Offsets Working Group considers future investments in offsets, every effort should be made to find and invest in at least one local project.

Commitment: Maintain and continuously update a carbon offset website for communication and transparency.

Lead Responsibility: Assistant Director of Sustainability, Director of Sustainability

Colgate's Office of Sustainability has already created a carbon offsets website with information on our approach and purchases of carbon offsets. This website should be updated and maintained on a regular basis.

Campus Participation and Reporting

As emphasized throughout this document, Colgate is working hard to transition from an emergent program to an integrated one. Accomplishing this will require commitment and participation from diverse stakeholders across the university. Because sustainability at Colgate is a true campus-wide initiative, we will only be successful if our community is engaged and invested in our overarching shared goals, this includes senior leadership as well as all members of our community.

For these reasons, each plan, including the Bicentennial Plan for a Sustainable and Carbon Neutral Campus is a beginning. As we work to accomplish each commitment and objective, we remain open to new ideas and opportunities so that everyone has a voice as we strive to advance sustainability and resilience of our campus.

Commitment: By December 31 of each year, Colgate will formally update the faculty, students, and staff on our progress through presentations at staff and faculty meetings, our annual greenhouse gas inventory, and an annual sustainability report. During these engagements, sustainability leaders will prioritize feedback and create vehicles for continued input.

Lead Responsibility: Office of Sustainability

2021-2025 Summarized Campus Commitments

Timeframe	Commitment
April 22, 2021	Sign Second Nature's Climate Resilience Commitment
August 1, 2021	Establish asynchronous learning options for employee sustainability passport program
August 1, 2021	Full formal assessment of sustainable food and beverages and a establish a new goal
August 1, 2021	Determine food waste tracking system
December 31, 2021	Institute optional graduation pledge for the class of 2022
January 1, 2022	Further integrate sustainability education into employee orientation, governance, and development opportunities
April 1, 2022	Relocate community garden to new on-campus location
April 22, 2022	Complete a final resilience assessment
Ongoing Spring 2022	Lead campus-wide outreach and feedback process for carbon offsets every three years
July 1, 2022	Create and implement a viable composting program
July 1, 2022	Complete and implement Sustainable Purchasing Policy
July 1, 2022	Eliminate purchase of non-recycled and post-consumer content paper on campus
July 1, 2022	Link sustainability to on-campus living, learning, social, and athletic communities
September 1, 2022	Complete a sustainability audit of dining-related water and energy consumption
December 31, 2022	Organize an annual sustainability alumni event
January 1, 2023	Invest in local carbon offset projects
July 1, 2023	Integrate sustainability into new student orientation
April 22, 2024	Complete a comprehensive climate adaptation plan
August 1, 2024	Complete and pilot employee commuting behavior assessment
July 1, 2025	Revise and improve existing Energy Master Plan

July 1, 2025	Implement variety of projects to reduce energy consumption and create efficiencies in five buildings on campus
July 1, 2025	Reduce water consumption in five buildings on campus
July 1, 2025	Expand Carry-In, Carry-Out Classroom Recycling Program to six new buildings
July 1, 2025	Implement programs to reduce food waste by 15% by 2025
July 1, 2025	Reduce paper consumption by 15% from FY 2020
July 1, 2025	Reduce water and energy usage related to dining services by 5%
July 1, 2025	Reduce Colgate's vehicle fleet emissions by 15%
July 1, 2025	Reduce emissions from the Cruiser, On-Demand Service, and Charter Service by 15%
August 1, 2025	Eliminate one-time use disposable plastics (including biodegradable plastics) in Dining Services and all catered events
Ongoing	Expand Green Bike fleet annually
Ongoing	Continue to improve lighting controls and upgrades
Ongoing	Continue development and implementation of the Green Cleaning Program
Ongoing	Continue utilizing GRLF to finance campus sustainability projects
Ongoing	Explore federal, state, and local funding opportunities
Ongoing	Carbon offsets should be purchased annually after the GHG inventory each fiscal year
Ongoing	Purchase RECs or green tags each year to offset 100% of annual electricity consumption
Ongoing	Maintain and continuously update a carbon offset website for communication and transparency
Ongoing	Formally update faculty, students, and staff on progress through presentations at faculty and staff meetings, the annual GHG inventory, and annual sustainability report.
Ongoing	Link student work study and academic experiences to on-campus operational practices

Appendix A: Sustainably or Ethically Produced Food Guidelines

From the Association for the Advancement of Sustainability in Higher Education:

To count as sustainably or ethically produced, a food or beverage product must meet one or more of the following standards. Certification/verification is required, however exemptions are provided for NGO-recommended seafood and institution-affirmed production, as outlined below.

Sustainable agriculture

International standards

- Biodynamic Certified (Demeter)
- Bird Friendly Coffee
- Certified Organic under any IFOAM-endorsed standard
- Certified Sustainably Grown (SCS)
- LEAF Marque (Linking Environment and Farming)
- Naturland certified
- Rainforest Alliance Certified (Sustainable Agriculture SAN Standard)
- Regenerative Organic Certified
- UTZ certified

Regional standards

- American National Standard for Sustainable Agriculture (ANSI/LEO-4000) (Silver or higher) - U.S.
- Bee Better Certified (Xerces Society) - U.S.
- Biopartenaire label - France
- Filière Biologique du Québec (BIO Québec, Aliments du Québec - Bio, and Aliments préparés au Québec – Bio)
- Food Alliance Certified - U.S.
- Participatory Guarantee System (PGS) verified (e.g., Certified Naturally Grown)
- Protected Harvest Certified - U.S.
- Salmon Safe Certified - U.S.
- USDA Transitional Organic - U.S.

Other sustainability standards and ISO Type I ecolabels developed/administered by a Global Ecolabelling Network or ISEAL Alliance member organization OR that meet or exceed the minimum crop production standards outlined in an IFOAM-endorsed organic program or IFOAM Common Objectives and Requirements of Organic Standards (COROS).

Sustainable seafood

International standards

- Marine Stewardship Council blue ecolabel (paired with MSC Chain of Custody certification)
- Monterey Bay Aquarium Seafood Watch (Best Choices, Good Alternatives, and Recommended Eco-Certifications)

Regional standards (for products not covered by the international standards)

- Australian Marine Conservation Society (Green 'Better Choice')
- Marine Conservation Society (Rating 1-2) - U.K.
- Mr. Goodfish seasonal recommendations - Europe
- Ocean Wise Recommended - Canada
- Royal Forest and Bird Protection Society (Ranking A-C) - New Zealand
- Sailors for the Sea Blue list - Japan
- WWF/Good Fish Foundation (Green and Amber/Yellow list) - Africa, Asia, Europe

Fair trade/labor

International standards

- Ecocert Fair Trade (EFT)
- Fair for Life (IMO)
- Fairtrade mark (Fairtrade International)
- Fair Trade Certified (Fair Trade USA)
- FairWild certified
- Guaranteed Fair Trade (WFTO)
- Hand in Hand (Rapunzel)
- Small Producers' Symbol (SPP)

Regional standards

- Equitable Food Initiative certified - U.S.
- Fair Food Program (Fair Food Standards Council / Coalition of Immokalee Workers) - U.S.
- Fair Trade Federation member - U.S. and Canada
- Food Justice Certified (Agricultural Justice Project) - U.S.
- Milk with Dignity (Migrant Justice) - U.S.

Other fair trade/labor standards developed/administered by a farmworker organization or a Global Ecolabelling Network, ISEAL Alliance, or WFTO member organization.

Humane animal care

International standards

- Animal Welfare Approved (A Greener World)
- Certified Humane Raised and Handled
- Global Animal Partnership Certified (Step 2 and above)

Regional standards

- AGA-Certified Grassfed - U.S.
- American Humane Certified (Laying Hens - Free Range and Pasture only) - U.S. and Canada
- Bioland - Germany
- BuyingPoultry (Best Choices and Better Choices) - U.S. and Canada
- Label Rouge - France
- NOFA-NY or PCO Certified 100% Grassfed - U.S.
- RSPCA Approved - Australia
- RSPCA Assured - U.K.
- SPCA Certified - Canada

Other animal welfare standards and ISO Type I ecolabels that exceed the minimum animal husbandry standards outlined in a relevant IFOAM-endorsed organic program or IFOAM COROS.

STUDENT-LED VERIFICATION PROGRAMS

- Good Food. Products that have been designated as Community-Based, Ecologically-Sound, Humane, and/or Socially-Just by student researchers running the Good Food Calculator and validated by Meal Exchange (Canada).
- Real Food. Products that have been designated as Ecologically Sound, Fair, Humane, and/or Local & Community Based by student researchers running the Real Food Calculator and validated by the Real Food Challenge (U.S.).

Institution-affirmed production

An exemption from the certification/verification requirement is granted to producers who are engaged in sustainable production, but for whom certification is either not accessible or not cost effective (e.g., campus farms and gardens and small producers). To qualify, ALL of the following criteria must be met:

1. The product is single-ingredient (e.g., apples, coffee, or fish).
2. The product is sourced through a short food supply chain (SFSC) that provides full traceability from identified farms, boats, or harvesters to the institution.

The institution is able to affirm (e.g., through site visits or documentation from the producer or intermediary) that the production methods used are consistent with the principles of organic agriculture articulated in IFOAM COROS, the FAO Code of Conduct for Responsible Fisheries, OR the 10 principles of fair trade adopted by the World Fair Trade Organization (WFTO).

Appendix B: Plant-Based Food Guidelines

From the Association for the Advancement of Sustainability in Higher Education:

> Consistent with Menus of Change, plant-based foods are defined as "fruits and vegetables (produce); whole grains; beans, other legumes (pulses), and soy foods; nuts and seeds; plant oils; and herbs and spices", simple combinations of these foods and their derivatives, and vegetarian/vegan alternatives to meat and dairy:
>
> **Unprocessed or minimally processed:**
> - Fruits
> - Vegetables
> - Whole grains
> - Legumes
> - Mushrooms
> - Nuts
> - Seeds
> - Herbs
> - Spices

This includes:
- Cereal grains and flours
- Plain oatmeal, pasta, and noodles
- Fruit or vegetable juices
- Tea
- Coffee

Processed culinary ingredients derived from plants or nature
For example:
- Vegetable oils crushed from seeds, nuts, or fruits such as olives
- Starches extracted from corn and other plants
- Sugar and molasses obtained from cane or beet
- Honey extracted from combs and syrup from maple trees
- Soy sauce
- Vinegar

Simple processed foods composed primarily of unprocessed or minimally processed plant-based foods and plant-based culinary ingredients
For example:
- Canned or bottled vegetables, fruits, and legumes
- Tomato extract, pastes, or concentrates
- Salted or sugared nuts and seeds

- Fruits in syrup
- Unpackaged freshly made breads
- Cereal products such as flavored oatmeal
- Tofu and tempeh
- Fermented alcoholic beverages such as wine, beer, and cider

Vegetarian/vegan alternatives to meat and dairy
For example:
- Plant-based ‘milks’
- Plant-based meat substitutes
- Plant-based margarines and spreads

Products that do NOT qualify
Animal products (i.e., meat, poultry, fish, seafood, eggs, and dairy) and their derivatives, drinking water, and most ultra-processed foods do NOT qualify as plant-based foods. Examples of ultra-processed foods include:
- Sweet or savory packaged snacks
- Chocolate and candies (confectionary)
- Mass produced packaged breads and buns
- Cookies (biscuits), pastries, cakes, and cake mixes
- Instant sauces
- Many ready to heat products including pre-prepared pies and pasta and pizza dishes
- Powdered and packaged ‘instant’ soups, noodles and desserts
- Carbonated drinks
- ‘Energy’ drinks
- ‘Fruit’ drinks
- Distilled alcoholic beverages such as whiskey, gin, rum, and vodka