

2023 Sustainability Plan Status Update *Fall 2023*

OVERVIEW

Colgate's *2022 Sustainability Plan* is Colgate's third formal sustainability and climate action strategic plan. The Sustainability Council and the Office of Sustainability commenced work on the *2022 Sustainability Plan* in 2019, which went into effect on January 1, 2022.

The *2022 Sustainability Plan* complements and bolsters Colgate's *Third-Century Plan* by supporting each of the four pillars of the plan.

This status update provides an overview of Colgate's progress toward achieving the goals and actions highlighted in the *2022 Sustainability Plan*. This Status Update compliments the Sustainability Council's annual [Sustainability Plan Scorecard](#).

SUSTAINABILITY PLAN STRATEGIC AREAS AND PROGRESS

- 1. CAMPUS CULTURE.** These programs and strategies promote behavior change and encourage decision-making with sustainability principles in mind. By providing educational resources, generating excitement, and raising awareness around sustainability issues in our living, learning, and working environment, we can promote a culture of sustainability on campus.

Student Engagement

Progress:

Student Sustainability Council (SSC). The SSC is a student group in its fourth year and has expanded its reach across additional student groups. Facilitated by interns of the Office of Sustainability, the group now includes student leader representatives from Outdoor Education and the Students for Environmental Action club, in addition to the established partners from Athletics, Greek Life Organizations, and the Student Government Association.

Pre-Orientation & Orientation. In partnership with the Upstate Institute, the Office of Sustainability hosted the inaugural Sustainability of the North Country pre-orientation program, a deep dive into sustainability on campus and upstate New York. We also increased sustainability-focused offerings during new student orientation and outreach to students before their arrival.

Free Store. The grand opening of the Colgate Free Store took place in August 2023 and represents a campus-wide collaborative initiative to increase equitable access to free supplies and decrease campus landfill waste.

Graduation Pledge. For the graduating Class of 2023, 148 students signed the [Sustainability Graduation Pledge](#), demonstrating over a 230% increase in participation.

13 Days of Green Annual Event Series. During the 2023 13 Days of Green Series, Colgate's Office of Sustainability offered 15 unique events, reaching 785 guests leading up to Earth Day. The series demonstrated collaboration with the ALANA Cultural Center, the Longyear Museum of Anthropology, the COVE, the Vis Lab, Career Services, First@Colgate, the Environmental Studies Program, Outdoor Education, and others.

Campus Events and Forums. During the academic year, the office hosted 65 events that reached 2,357 community members. A novel highlight of the year was the inaugural Student Sustainability Council Summit, bringing together student sustainability leaders and key athletic staff, the Student Government Association, greek life organizations, and the Office of Sustainability to collaborate on initiatives and sustainability promotion in their spheres of influence.

Student Engagement Next Steps / Ongoing Initiatives:

The amount of single-use plastics coming out of dining services and used during Orientation continues to be a major concern and a poor reflection on Colgate. We hope to further work with Chartwells and the Associate Dean for First and Second-Year Experience to find solutions and implement programs to reduce the amount of plastic pollution at Colgate and the disconcerting optics they create.

We also need to further integrate waste minimization and recycling programs into the residential commons.

Specific goals include:

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

Employee Engagement

Progress:

Sustainability Passport Program (est. 2015).

- 325 employees have participated to date (up from 294 last year). In total, representatives from 65+ departments & offices, 700+ hours logged; 20% of current employees participate. We have awarded two Sustainability Champions, Nicole Carvell and Susan Light, since the spring of 2023.
- [On-demand Passport Program](#) created this year: a one-hour-long online course composed of short videos from LinkedIn Learning selected by the Office of Sustainability.
- [Foundations of Sustainability](#) 6-Week Summer Course was offered again this year with 22 faculty and staff participants.

Oak Certified Events. The Colgate [Oak Event Certification](#) program is an initiative created by the Office of Sustainability to promote environment-friendly, socially responsible, and

sustainable events on campus. The Office of Sustainability hosted a training workshop for 30+ staff on November 7 to further promote zero waste events on campus.

Rideshare Program. Higher gasoline prices, coupled with reduced parking on campus, have increased the desire to carpool with colleagues. In response, the Office of Sustainability created an easy-to-use, Colgate-specific [rideshare spreadsheet](#) for employees to share their information with other Colgate employees.

Employee Engagement Next Steps / Ongoing Initiatives:

- Expand the Sustainability Passport Program to include Green Office practices that encourage energy and resource efficiency and conservation in the workplace.
- Further integrate sustainability education into employee orientation, governance, and professional development opportunities.

Alumni Engagement

Progress:

Sustainability Walking Tour. The Office of Sustainability created a new walking tour of campus that highlights Colgate's sustainability features, including green buildings, Bicentennial tree plantings, landscaping practices, commitment to carbon neutrality, heating plant, and Community Garden. Over the past few years, these walking tours have been very well attended, with over 100 alumni joining the walking tour during the 2022 Reunions. Additionally, local high school students and Colgate employees through the Wellness Program have all enjoyed Colgate's sustainability walking tours as well.

Alumni Engagement Next Steps / Ongoing Initiatives:

- Strengthen connections with alumni by organizing an annual sustainability event with one or more of the Professional Networks or with the Alumni Council.

2. **CURRICULUM & LEARNING.** Courses have been identified and are publicly available through our [AASHE STARS report](#); over 12% of Colgate courses are focused on or inclusive of sustainability. This fall, the Curriculum Subcommittee of the Sustainability Council compiled a [list of courses](#) for the spring '24 semester that include or are focused on sustainability or climate change. The Subcommittee made and distributed a [poster](#) to raise awareness and help promote these courses.

Progress:

Sustainability in the Curriculum

CORE Revision. Numerous opportunities exist to further integrate sustainability into the curriculum throughout the Core. The Living and Learning Workshops and Core Sciences are two such opportunities. Additionally, at least three of the five currently required texts in Core Conversations (Braiding Sweetgrass, Frankenstein, and Tao Te Ching) have clear sustainability connections.

Faculty Teaching Table. The Curriculum Subcommittee hosted a teaching table on sustainability through the Center for Learning and Teaching this fall, which was organized to encourage new faculty to introduce units oriented to sustainability or to introduce sustainability thinking in the classroom. The Subcommittee organized conversations to help new faculty overcome the

hurdles of incorporating sustainability into their courses, especially when the course subject may not lend itself readily to such issues. New faculty from Political Science, Film and Media Studies, and Psychology, for example, were in attendance.

ENST 450 (formerly ENST 390): Community-based Environmental Issues. 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 Office of Sustainability, 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 the goal of developing relevant recommendations. Over the past few years, dozens of semester-long [research projects](#) have been completed by student teams in ENST 450/390 with assistance from the Office of Sustainability that have helped to meet our campus sustainability and climate goals. Projects range from water monitoring on campus and at Lake Moraine, to climate change adaptation on campus and in the Village of Hamilton, to planting an indigenous Three Sisters Garden at Colgate's Community Garden, among others.

Climate Conversations and Sustainability 101. Climate Conversations: Our 5-week, peer-instructed course about Sustainability reached 117 students throughout 2023 and began bringing students to the Community Garden to contribute volunteer hours towards this local sustainable agriculture initiative. The on-demand course titled "Sustainability 101" has been sunsetted due to the Campus Recreation Department's removal of the Wellness Passport program.

Classroom Support. Office of Sustainability staff provided lectures, research support, and mentorship for numerous Colgate courses, including ENST 450, History of Toxics, FSEM, CORE, and others.

Co-Curriculum Programming

Panel Discussions. The Curriculum Subcommittee has organized sustainability and climate-themed panels through the residential commons every year for the past several years. Panels are designed to reach students in a conversational and welcoming way, in their own residential commons, and also to be inclusive of students of all academic concentrations, who might not otherwise encounter sustainability as part of their coursework. This work addresses broader goals found in the introduction to the plan: "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." Over the past year, the Curriculum Subcommittee ran five panels, with at least one offered in each of the four commons.

Sustainability Interns. Each year, Colgate's Office of Sustainability hires around 13 paid interns. These interns receive first-hand professional experience developing and implementing sustainability projects and programming. The interns develop and hone professional skills, learn to work in teams, collect data of institutional importance, and mentor peers across campus.

Sustainability Representatives (S-Reps). The S-Reps program offers first-year students an opportunity for mentorship and professional development by interns in the Office of Sustainability. The S-Reps are trained in sustainability best practices, environmental justice,

goal-setting, communication, and career development as they develop innovative campaigns and projects across campus. In addition to personalized coaching from interns, staff in Career Services support professional skills development that they can carry into every corner of campus. Their campus-wide efforts support energy reduction, waste minimization, behavior change, and environmental justice awareness.

Summer Research.

Summer 2023: New York State Climate Smart Communities Program: Why and how did local municipalities in New York pursue certification, and what are the policy outcomes? Boyana He*, Christopher Henke, Robyn Landes*, Andrew Pattison, and John Pumilio (*Colgate Undergraduate Student Collaborators). Our research is focused on the New York State (NYS) Climate Smart Communities program (CSC) and the policy capacity of communities to achieve certification. NYS CSC program is a sustainability framework for cities, counties, villages, and towns to develop and track various climate change initiatives. The program is run by the NYS Department of Environmental Conservation (DEC), and there are 118 currently certified communities and 388 total registered communities. Building on the work in Pattison, Henke & Pumilio (2021), "Community-based climate action planning as an act of advocacy: a case study of liberal arts education in a rural community," we collect additional data on the NY communities participating in the state's CSC program. Data is collected as existing datasets of community characteristics, including but not limited to socio-demographic data and readily available government data, e.g., the American Community Survey. We are collecting additional data through qualitative interviews with key informants in twenty small communities, ten towns, and ten villages. This research also involved a few regional field trips throughout the summer.

Summer 2022: The Department of Geography, Facilities, and the Office of Sustainability worked with two summer research students (Tingkuan Hsieh '24 and Sophie Schadler '23) in 2022 to digitize and analyze all of Colgate's landholdings using available tax maps. The project aimed to better inventory Colgate properties, both proximate and non-contiguous. Students were asked to conduct site visits and to calculate the number of forested acres, miles of roads/sidewalks/trails, acres of building footprints, acreage of parking lots, amount of mowed lawn, and other land use/land cover characteristics. Such information will help guide 1) resource allocation for Facilities, 2) long-term planning and design decisions, and 3) the integration of sustainability principles in ongoing management and construction projects. The results of this research can be found here: <https://sites.google.com/colgate.edu/colgate-tree-and-forest/landholdings>.

Curriculum & Learning Next Steps / Ongoing Initiatives:

- Continue working towards the inclusion of sustainability in the new CORE.
- Increase faculty awareness of teaching sustainability and provide more opportunities for engagement.
- Enhance co-curricular education/experiential learning that foregrounds sustainability.

3. CAMPUS OPERATIONS. 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 profoundly impact campus sustainability. The Operations Subcommittee of the Sustainability Council works to collect and track data and

implement on-campus projects and practices that increase efficiencies, eliminate waste, and reduce Colgate's overall carbon footprint.

Progress:

Energy Efficiency and Carbon Reduction Projects

Continuation of full replacement of oil burners to natural gas. Completed this year: 88 Hamilton St, 100 Hamilton St, HRD, Raab House, Merrill House, and La Casa. Planned for 2024: Conant House, Base Camp, Alana, and Preston Hill Apts.

Lineberry Pool and Chapel House insulation for energy efficiency. Colgate's Natatorium has the highest energy use per square foot compared to any other space on campus. This year, the steam line in the pool mechanical room was insulated to avoid energy leakage. This project will result in significant energy and carbon savings.

Olin Hall Renovation: HVAC upgrades to new and efficient HVAC equipment.

Continuation of lighting upgrades to LEDs annually across the campus.

Wynn Hall fume hood removal and LED light replacement project. Currently underway, with two removed, and a third one is planned for removal.

Water Conservation

Campus water consumption has been reduced from 75.5 million gallons in 2011 (the year Colgate's first sustainability and climate action plan was implemented) down to 57.1 million gallons in Fiscal Year 2021. This number bounced back up to 61 million last year. Despite this uptick, water consumption is still down between 20-25 percent overall despite adding five new buildings and nearly 200,000 square feet. Over the past few years, Colgate has installed low-flow water fixtures, repaired water lines, and eliminated sources of water waste. We have also expanded our water metering and have a better handle on when and where water is being wasted. More specifically, over the past 12 months, we added irrigation system controls on Tyler's Field; repaired leaks at the pump house; repaired Case-Geyer steam line; installed low-flow faucets and toilets at Olin Hall; installed low-flow faucets and toilets at Benton Center.

Waste Management

Standardized Recycling Signage and Stations. In partnership with Communications and Colgate's Graphic Designer, the Office of Sustainability completed campus-wide standardized signage and prompts for recycling and waste stations. These posters and prompts have been distributed and will help to add consistency to Colgate's recycling program. Additionally, fifteen new Colgate recycling stations were installed in Persson Hall, 100 Hamilton Street, Gate House, and WMST. This will further add consistency to Colgate's recycling program and reduce contamination. This year, Facilities also placed a large recycling label/sign on Colgate's recycling truck. This sign helps to differentiate this truck from our landfill waste truck and helps to reassure community members when they see their recyclables go into the recycling truck. During move-in, we also implemented a cardboard recycling program with great success. This program will again be implemented and improved upon for next year. Finally, the Office of Sustainability, in partnership with Facilities, also organized a highly successful educational field

trip for our custodial staff to the Madison County recycling center. This trip raised awareness and increased overall participation in our campus recycling program.

Customized Recycling Stations. Twelve new Colgate recycling stations have been ordered and installed in Persson Hall, 100 Hamilton Street, and Gate House. This will further add consistency to Colgate's recycling program and reduce contamination.

Carry-in; Carry-out Classrooms. Beginning in the fall semester of 2023, the carry-in, carry-out program was implemented in all standard classrooms with a few exceptions for labs, art classes, and other non-traditional classroom settings.

Composting. Around 2,600 lbs of composting were collected along Broad Street and composted at the Colgate Community Garden. We also received a \$5,000 grant from NYSAR3 and a donation from Mark and Julia Schonfeld for the purchase of an all-electric transport vehicle to help with our composting program. Facilities and Dining Services, in partnership with the Office of Sustainability, is also exploring the option of collecting and taking all of Colgate's organic waste to the Food2Energy biodigester in Oneida County.

Electric Hand Dryers. Facilities removed all paper towels in residence halls in favor of hand dryers. This reduces plastic and paper waste, carbon emissions, and overall operating costs.

Transportation

University Vehicles. Facilities reduced their existing fleet this year by two vehicles and purchased and received two all-electric service vehicles (the first in our fleet). Campus Safety has purchased two new hybrid patrol vehicles and two new electric bikes for campus patrols.

Electric Vehicle Charging Stations. In 2022, Colgate doubled the number of electric vehicle charging stations by installing a new dual-arm station in the Human Resources parking lot. There are now a total of six charging ports on campus. Faculty and staff who own an electric vehicle can benefit by charging on campus.

Golf Carts. The golf course replaced all gas-operated golf carts with 60 electric-powered golf carts.

Green Bikes. This past year, the Office of Sustainability purchased four additional bicycles to add to our fleet of rental bicycles and completed moving our fleet to the Burke and Pinchin Bike Storage rooms. Additionally, the Sustainability Interns added considerations of equity into our bike lottery selection process so that there is a greater chance of bike selection for students without access to cars and who live farther from campus. More information can be found on [our Green Bikes website](#).

New Colgate Rideshare Program. Higher gasoline prices, coupled with reduced parking on campus, have increased the desire to carpool with colleagues. In response, the Office of Sustainability created an easy-to-use, Colgate-specific [rideshare spreadsheet](#) for employees to

share their commuting behaviors with other Colgate employees in the hopes of establishing new carpools.

Campus Operations Next Steps / Ongoing Initiatives:

- *Utility and Infrastructure Master Plan.* Revise and improve the existing energy master plan by July 1, 2025.
- *Water Conservation Action Plan.* Now that Colgate has improved water monitoring, Facilities is developing a specific building-by-building plan to conserve water.
- *Green Labs.* The Curriculum Subcommittee is exploring options to incorporate new "green labs" initiative to reduce disposable plastic lab equipment within the new Olin renovation.
- *Colgate Cruiser and Bus Service.* Reduce greenhouse gas emissions from the Cruiser, on-demand service, and charter service by 15 percent from FY 2020 levels by July 1, 2025.

4. **PURCHASING.** 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.

Progress:

Environmentally Preferable Purchasing. In collaboration with the Purchasing department, the Office of Sustainability finalized environmentally preferable purchasing guidelines. These guidelines are highlighted and easily accessible on [Colgate's website](#).

Paper Consumption. In FY 2022, 59,191 lbs of paper were purchased by departments and through the Print Shop, compared to 72,457 lbs in 2020 and 130,064 in 2009 (our baseline year). Online reading and assignments, double-sided printing, and increased awareness of the environmental costs of printing are likely playing a role in the steady reduction of paper use at Colgate over the years. Unfortunately, in FY 2022, approximately 15,646 lbs of paper purchased at Colgate was virgin paper and non-FSC certified. This represents about 26% of the total amount of paper purchased. However, progress is being made as last year's total is significantly down from previous years when the majority of paper purchased was virgin or non-certified.

Purchasing EPEAT Registered Electronic Equipment. For the second year in a row, Colgate received an award from the [Global Electronics Council](#). In Fiscal Year 2022, over 90 percent of all desktop computers, monitors, tablets, and printers purchased were EPEAT Gold certified.

Green Cleaning Program. The main goals and objectives of the Green Cleaning Program are to reduce exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological, and particulate contaminants that can adversely impact air quality, health, building finish, building systems, and the environment. To advance Colgate's efforts in this area, Facilities is in the process of switching over to a new chemical dispensing system that will save on containers & delivery of supplies to buildings. Facilities are also assessing areas for entranceway matting and installing additional mats where needed. Finally, last year, Colgate purchased and applied the following green cleaning products:

- 3M Stone Floor Finish
- Bona Supercourt Athletic Floor Care

- Crew 44 Scale Remover
- Glance Glass Cleaner - RTD
- Neutralizer Packets - Floor Cleaning
- Stride RTD Floor Cleaner
- Stride Smart Dose Floor Cleaner

Purchasing Next Steps / Ongoing Initiatives:

- Complete and communicate Colgate's vendor code of conduct.
- All printer and copier paper purchased on campus will contain post-consumer recycled content or be from sustainably managed forests.

- 5. FOOD & DINING.** 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.

Progress:

Food and Beverage Procurement. Chartwells provided Colgate's Office of Sustainability with a detailed product-by-product food spend for a 12-month period from October 1, 2021, through September 30, 2022. The total annual food and beverage expenditures on plant-based foods was 30.1% of total food spend. The percentage of total annual food and beverage expenditures on products that were sustainably or ethically produced was 3.5% of total food spend. The combined food spend for plant-based and sustainably/ethically produced foods was 33.6% of Colgate's total food spend.

Colgate Community Garden. After several successful years with the Colgate Community Garden behind Good Nature Brewery, the Garden has a new and permanent home. The Colgate Community Garden now sits just south of Colgate's Townhouses on Rte 12B and had its first full growing season at the new spot in 2022. Some new projects at the garden include a free little library and a seed library, composting, and a pollinator garden. Old favorites such as the apiary, fruit trees, community plots, and production crops can still be enjoyed. One of the most exciting projects of 2022 is the new Three Sisters Garden planted at Colgate's Community Garden. To further complete the move, we are working to install a greenhouse and shade pavilion. The new greenhouse is currently under construction and almost complete (as of October 2023). We have also secured an Emerson Foundation Grant for \$25K to pay for the greenhouse and a donation of \$80K (\$20/year for four years) from Mark and Julia Schonfeld.

Three Sisters Garden Project. One of the most exciting projects over the past few years has been the new Three Sisters Garden planted at Colgate's Community Garden. The project was started by students in Professor Henke's section of ENST 390 in 2021. The project acknowledges the Oneida land that the garden is on while welcoming the local Haudenosaunee seeds back to the land. Besides a teaching space, the Three Sisters Garden aims to build partnerships with local Haudenosaunee communities by sharing of Indigenous knowledge of food systems. The three sisters (corn, beans, and squash) are considered by the Haudenosaunee to be special gifts from the Great Spirit. A dedication to this garden and a Seed Sovereignty Lecture with Angela Ferguson, the current supervisor of the Onondaga Nation Farm, was held on May 4th, 2022, to incorporate Indigenous principles and wisdom into the community garden. The 2022 Fall Festival was held on

September 30 with a formal ribbon-cutting ceremony for the garden. The event included a welcome from the Oneida Nation and indigenous dancers and attracted over 150 faculty, staff, students, and community members. The Fall Festival was held on [September 29th](#) of this year and was equally successful.

Community Garden Composting Project. Around 2,600 lbs of composting were collected along Broad Street and composted at the Colgate Community Garden. We also received a \$5,000 grant from NYSAR3 and a donation from Mark and Julia Schonfeld for the purchase of an all-electric transport vehicle to help with our composting program. Facilities and Dining Services, in partnership with the Office of Sustainability, is also exploring the option of collecting and taking all of Colgate's organic waste to the Food2Energy biodigester in Oneida County.

Utensil Kit Program. In the Spring of 2022, the Office of Sustainability launched a reusable utensil kit program to reduce plastic waste from the Coop and Chobani Cafe, which currently only have the infrastructure to offer single-use plastic utensils. Beyond reducing waste, the program encourages students to engage in sustainable behavior and think consciously about waste on campus. Over 100 utensil kits were distributed, and feedback forms were administered before and after the semester so we can improve the program going forward. In the fall of 2023, the Office of Sustainability, in partnership with Chartwell's, created a [poster](#) to place at plastic utensil dispensaries, encouraging students to sign up for a reusable utensil kit.

Food & Dining Next Steps / Ongoing Initiatives:

- Increase the purchase of sustainable food and beverage by 15% from our 2021 baseline by 2025.
- Determine a food waste tracking system and implement programs to reduce food waste by 15% by 2025.
- 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.
- Complete a sustainability audit of dining-related water and energy consumption and work to reduce water and energy usage by 5% by 2025.
- The Office of Sustainability hopes to work with Facilities and others to renovate the house on the property to use for year-round programming. The garden also needs a greenhouse and shade pavilion to complete our move.

6. ECOSYSTEMS AND LAND STEWARDSHIP. Colgate owns 2,167 acres of land, of which over 550 acres include the campus proper, 1,250 acres are forested, and 199 acres are on agricultural land. The campus proper includes Colgate's buildings on upper, middle, and lower campus, Taylor Lake, the Seven Oaks Golf Course, and 3,492 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. Being excellent stewards of this land continues to be a high priority for the Colgate community and Colgate's Office of Sustainability.

Progress:

Campus Tree Inventory. Colgate completed a comprehensive [tree inventory](#) of its campus trees by December 2021. As part of this inventory, each tree was identified, measured, and will be evaluated and monitored over time.

Forest Carbon Inventory. [Completed Spring Semester 2023.](#)

Grounds Maintenance Benchmarking and Tracking Tool. Facilities, in partnership with the Office of Sustainability, have begun the process of collecting data for the amount of fertilizers, herbicides, pesticides, and de-icing chemicals used on campus. Benchmarking and tracking these practices is a helpful first step to maintenance that balances labor, cost, safety, aesthetics, and environmental impacts.

Soil Testing. 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 potentially avoid the 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. Some soil testing was performed along Willow Path this past year.

Land and Forest Stewardship Website. To help communicate the value of Colgate's forests and trees, the Office of Sustainability created and compiled a new website highlighting the benefits and attributes of Colgate's landholdings.

<https://sites.google.com/colgate.edu/colgate-tree-and-forest/home>.

Ecosystems & Land Stewardship Next Steps / Ongoing Initiatives:

- Establish a more robust grounds maintenance benchmarking and tracking tool.
- Establish a more robust soil testing and tracking program.
- Pursue Tree Campus Higher Education Certification Through the Arbor Day Foundation.
- Form a new [Open Lands and Forest Stewardship Governance Committee](#).
- Explore Opportunities to Remove an Additional Five (5) Acres Out of a Weekly Mowing Regime by July 1, 2024.

7. **FINANCING.** 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.

Progress:

Green Revolving Loan Fund. Over this past fiscal year, Colgate committed to investing in two new projects financed by the Green Revolving Loan Fund. The conversion of natural gas from fuel oil in 100 Hamilton Street and 88 Hamilton Street. This brings the total number of projects financed by the Green Revolving Loan Fund to seven. At the end of Fiscal Year 2023, the cumulative savings amounted to \$759K, and the ending balance was \$1.1M. The amount of greenhouse gas emissions avoided to date is 2,486 MTeCO₂.

Recycling Bins from the Keep America Beautiful Campaign. Colgate received a grant from the Keep America Beautiful campaign to provide over 100 new recycling bins worth nearly \$70K for campus events.

Second Nature Climate Acceleration Fund. Colgate applied for and received a small grant worth \$5,000 to support the work of Andrew Pettit '13. Andrew worked with faculty, staff, students, and Hamilton officials to help complete a municipal climate action and climate resilience plan.

State and Local Financing. 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 in the Persson Hall parking area. It is an important time to pay careful attention to possible grants and tax incentives now that the Infrastructure Reduction Act (IRA) has passed and is being implemented. Over the past year, Colgate received a NYSAR3 grant of \$5,000 to help purchase a new all-electric transport cart to aid with our composting program, we received a \$25,000 Emerson Foundation Grant to help purchase a new greenhouse for the Colgate Community Garden, and we were reimbursed several thousand dollars from the Pollution Prevention Program for our composting program. This is all in addition to an \$80,000 donation we received from Julia and Mark Schonfeld to support our Garden project.

Financing Next Steps / Ongoing Initiatives:

- Continue utilizing the Green Revolving Loan Fund (GRLF) to finance campus sustainability projects.
- Explore federal, state, and local funding opportunities, especially with the passage of the Infrastructure Law and the Inflation Reduction Act.

- 8. CLIMATE RESILIENCE AND ADAPTATION.** Our future climate 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. Staying focused and being prepared for climate impacts will help Colgate avoid disruption and reduce costs over time.

Progress:

Second Nature's Climate Resilience Commitment. President Casey signed the Climate Resilience Commitment on April 22, 2021. The Commitment provides a solid framework, resources, and a strong network of collaborative leaders to support Colgate's journey to climate resiliency.

Climate Vulnerability Assessment. To benchmark and track Colgate's path to climate adaptation and resilience, the University needs to establish a suite of climate indicators and metrics. To begin this process, Environmental Studies students and faculty have been working with the Office of

Sustainability to perform literature reviews, talk with leaders of other institutions, and interview Colgate and regional stakeholders to gain insight into key metrics for Colgate University.

To date, the following research projects have been completed:

[2019 ENST 390 Spring - Colgate Climate Vulnerability and Resilience Assessment \(a first step\)](#)

[2021 ENST 390 Spring - Indicators of Ecological Resilience](#)

[2021 ENST 390 Spring - The Wild West of Climate Resilience Planning](#)

[2022 ENST 390 Spring - Indicators of Social Resilience](#)

This semester, students in Profs. Margaretha Haughwout and Andy Pattison's ENST 450 course is finalizing a list of recommendations based on these previous studies. As the students progress, they will share their findings with the Climate Resilience and Adaptation Subcommittee. The Subcommittee will consider the recommendations in the student's final report before settling on a final suite of indicators and metrics to help track Colgate's progress toward climate resilience over time.

Hamilton Climate Preparedness Working Group. The Hamilton Climate Preparedness Working Group (HCPWG) was formed in 2016 and aims to research, plan, and promote policies and programs in response to existing and future impacts of climate change. Both the Town and Village of Hamilton achieved the New York State Department of Environmental Conservation's (NYSDEC) Climate Smart Certification with the help and guidance of Colgate faculty and students. The Town of Hamilton also initiated a Heat Smart Hamilton Campaign in the spring of 2022 to encourage residents to explore renewable heat pump (air-sourced or ground-sourced) technologies.

Climate Resilience and Adaptation Next Steps / Ongoing Initiatives:

- Complete a comprehensive climate adaptation plan by April 22, 2025.

9. **CARBON OFFSETS.** 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.

Progress:

Carbon Offset Committee. By February 2023, the Working Group received bids for 89 offset options from 10 providers and began evaluating the different projects. The full list of projects and vendors can be found [here](#).

The group evaluated projects based on feedback from a series of focus groups conducted over the course of the previous year¹, past purchasing practices and feedback, as well as personal preferences and recommendations.

Individuals from the various focus groups expressed skepticism about purchasing forestry-based projects (e.g., long-term permanence is questionable). They also agreed that "avoided

¹ A summary of the focus group discussions can be found [here](#).

deforestation” projects are especially problematic due to imposing values on other places/communities. Several participants supported easily quantifiable, chemical-based offsets (e.g., methane or nitrous oxide destruction and recovery projects). Feedback from various campus community members also agreed that selecting a portfolio of project types is a good approach. The results of this work and the specific projects we invested in can be found on our website:

<https://sites.google.com/colgate.edu/colgate-carbon-offsets/home>.

Offsets Next Steps / Ongoing Initiatives:

- Carbon offsets should be purchased annually after Colgate’s GHG inventory is finalized for the previous fiscal year.

Additional Noteworthy Areas of Progress

- *AASHE STARS*. In the fall of 2022, Colgate’s Office of Sustainability completed and submitted its AASHE STARS report to AASHE and received a Gold Rating on October 11, 2022.
- *Greenhouse Gas Inventory*. Completed Fiscal Year 2022 Greenhouse Gas Inventory. Campus emissions were 6,673 tons, representing more than a 60% reduction in our campus carbon footprint since our baseline in 2009. This is impressive under any circumstance, but considering that we’ve achieved this while adding about 200,000 square feet of new building space and more students and faculty, it’s even more remarkable.
- *Free Store*. Relocated the Green Bikes Program to Burke and Pinchin Halls and started operations of a new Free Store in Drake Hall.
- *Greenhouse*. Constructed a new greenhouse at Colgate’s Community Garden.
- *Pre-Orientation Program to Adirondacks*.