

**Skidmore College
2018-2019 Campus Sustainability
Annual Report**

**Submitted by the Campus Sustainability Subcommittee of the
Institutional Policy and Planning Committee**

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DEFINITION OF SUSTAINABILITY	4
FOCUS AREA 1: ENERGY	5
GOAL 1: 60% OF OUR ELECTRICITY FROM RENEWABLE SOURCES.....	5
GOAL 2: 60% OF OUR HEATING AND COOLING FROM RENEWABLE SOURCES.....	6
GOAL 3: 75% REDUCTION IN OUR SCOPE 1 AND 2 GHG EMISSIONS.....	6
GOAL 4: 60% REDUCTION IN ENERGY USE FOR HEATING AND COOLING PER STUDENT AND SQUARE FOOT. 6	
GOAL 5: MAINTAIN ELECTRICITY USE PER STUDENT AND SQUARE FOOT.	7
RECENT EFFORTS.....	8
FUTURE STEPS	8
FOCUS AREA 2: FOOD	9
GOAL: 25% SUSTAINABLE FOOD IN DINING SERVICES.....	9
RECENT EFFORTS.....	10
FUTURE STEPS.....	10
FOCUS AREA 3: WASTE.....	11
GOAL 1: 60% DIVERSION RATE IN ROUTINE OPERATIONS.....	11
GOAL 2: 50% DIVERSION RATE FOR SPECIAL PROJECTS	12
RECENT EFFORTS.....	12
FUTURE STEPS.....	12
FOCUS AREA 4: LANDS AND GROUNDS.....	14
GOAL: CREATE A COMPREHENSIVE LANDS MANAGEMENT PLAN FOR OUR LANDS AND GROUNDS.....	14
RECENT EFFORTS.....	14
FUTURE STEPS.....	15
FOCUS AREA 5: ENGAGEMENT	16
GOAL: MAKE SUSTAINABILITY AN ESSENTIAL FEATURE OF SKIDMORE'S IDENTITY AND A VALUE THAT IS INTEGRATED INTO ALL ASPECTS OF THE COLLEGE	16
RECENT EFFORTS.....	16
FUTURE STEPS.....	17
IN CONCLUSION	18



Aaron Mair delivers keynote address at the inaugural Saratoga Sustainability Fair

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In May 2015, Skidmore College endorsed its first Campus Sustainability Plan. The *2015-2025 Skidmore College Campus Sustainability Plan* includes five key focus areas: energy, food, waste, lands and grounds, and engagement. Working groups formed by members of the Campus Sustainability Subcommittee (CSS) and other key stakeholders undertook significant research to develop challenging goals within each focus area to achieve by 2025. This *2018-2019 Campus Sustainability Annual Report* provides a snapshot of the status of sustainability efforts on campus, with an eye toward not only celebrating our achievements, but also restating our commitments, calling attention to our challenges, and noting our continuing plans and efforts going forward.

Reading the Dials

The tracking dials found in the following sections of this report signify the College's progress toward our sustainability goals. The light gray needle found in some dials represents the figures reported in the *2017-2018 Annual Report* and illustrates how recent projects have impacted our progress.

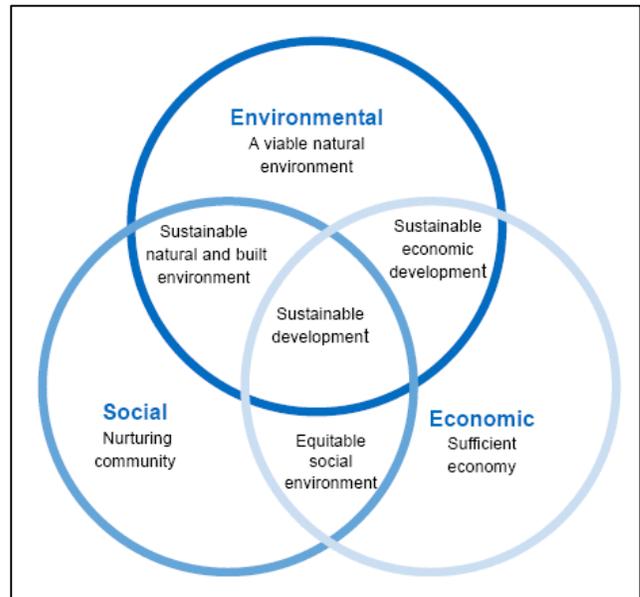
Definition of Sustainability

Recognizing environmental limits, and sharing the ethic that present actions should not “compromise the ability of future generations to meet their own needs,” * the Skidmore College community embraces both the concept and practice of sustainability. We endeavor to enact environmentally responsible practices, grounded in economic and social equity, and through our actions to have a positive impact on our community and our planet.

Skidmore’s primary mission is education, and the College’s greatest impacts and achievements will be realized as consequences of the lives our graduates lead. As part of an ever-growing population on a finite planet, we are confronted with an increasingly urgent need to address the resulting environmental constraints and social challenges. Institutional adoption of sustainable practices, informed by an understanding of the complex, interconnected nature of living systems and their physical environment, provides the opportunity for each Skidmore community member to become educated and personally involved in addressing these challenges, and empowered with techniques and strategies that they might apply to make positive changes beyond Skidmore.

We invite Skidmore community members to engage in mindful consideration of their individual and collective ecological, economic, and social impacts, to examine their values, and to collaborate in demonstrating their values and principles through action. Teaching, learning and living in accordance with the tenet of sustainability fosters broad education and civic engagement of our community members, and prepares our students to be informed, active citizens and leaders in realizing sustainable futures. The health and wellbeing of future generations is dependent upon their success.

**Brundtland Commission*





Electric vehicles on display at the inaugural Saratoga Sustainability Fair

Focus Area 1: Energy

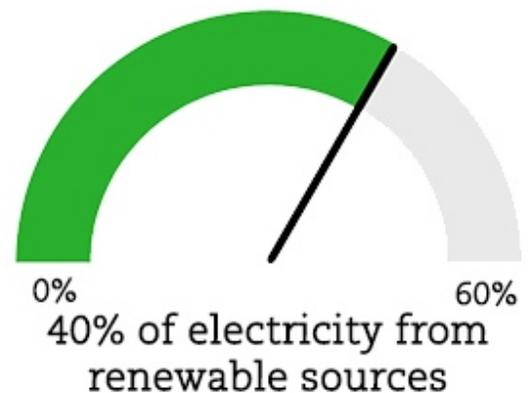
The extraction, transportation, and use of our various energy sources have major environmental, social, and economic impacts, and are a major source of our institutional greenhouse gas (GHG) emissions. Skidmore has implemented numerous small-scale and large-scale projects that improve energy efficiency, shift us toward a cleaner and more renewable energy portfolio, and decrease institutional GHG emissions. In addition to our larger-scale efforts, we have launched many initiatives to promote behavioral changes that are equally important to reducing our energy consumption.



Goal 1: 60% of our electricity from renewable sources

Current progress: The percent of electricity from renewable sources remained at 40%.

Skidmore consumed 23,919,323 kWh of electricity in Fiscal Year 2019, a modest increase from the previous year. Together, Skidmore's solar array and small-hydro facility generated 4,793,851 kWh of electricity, a 7.3% increase in total generation compared to Fiscal Year 2018. The College received another 4,796,668 kWh of electricity from renewable sources (excluding

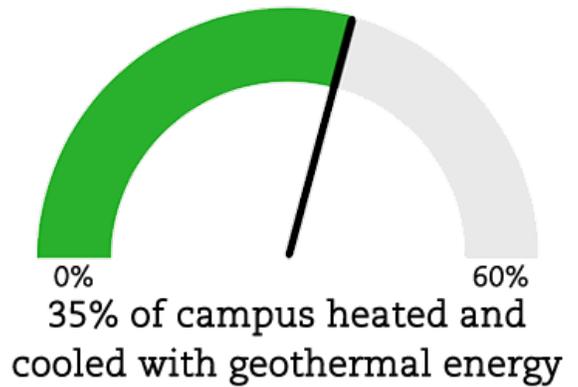


nuclear) through the regional grid. It is important to note that Skidmore does not retain the RECs tied to the renewable energy received through the regional grid and therefore does not directly minimize our institutional GHG emissions.

Goal 2: 60% of our heating and cooling from renewable sources

Current progress: The percent of campus square footage heated and cooled with geothermal energy remained at 35%.

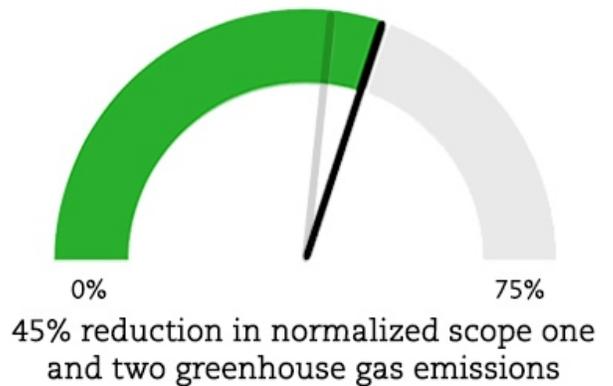
The district geothermal system designed for the Center for Integrated Sciences will support our progress toward this goal.



Goal 3: 75% reduction in our scope 1 and 2 GHG emissions

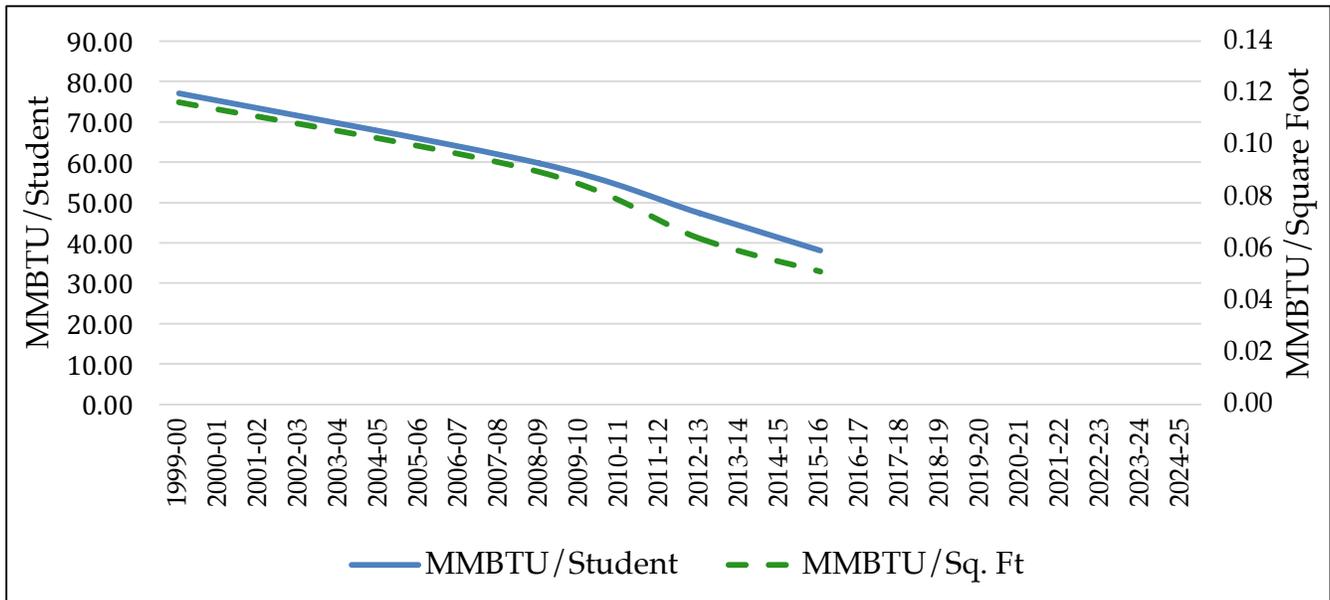
Current progress: Skidmore has reduced scope one and two GHG emissions by 45% from our normalized 2000 baseline.

(note: Skidmore’s most recent GHG inventory measured campus emissions from Fiscal Year 2016).



Goal 4: 60% reduction in energy use for heating and cooling per student and square foot

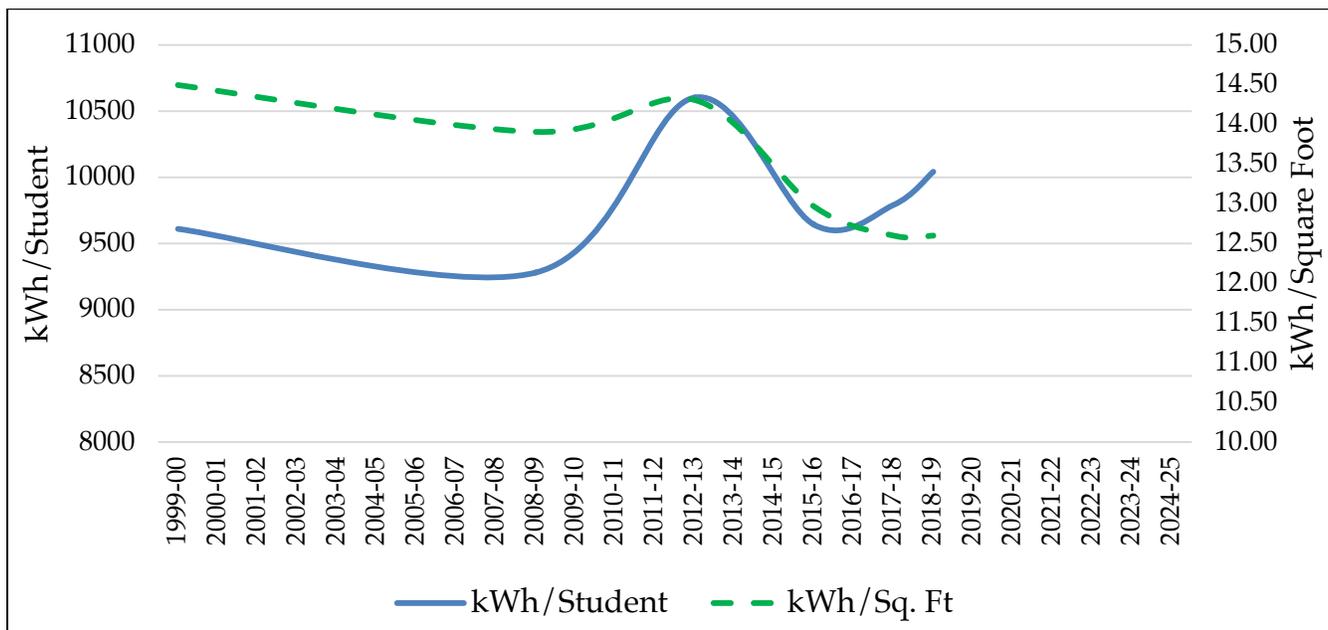
Current progress: 51% reduction in energy use for heating and cooling per student (38.11 MMBTU/student) and 56% reduction in energy use for heating and cooling per square foot (0.05 MMBTU/sq. ft.) from 2000 levels.



Goal 5: Maintain electricity use per student and square foot.

Current progress: 1.1% increase in electricity use per student (9790.72 kWh/student) and 13% reduction in electricity use per square foot (12.60 kWh/sq. ft.) from 2000 levels.

We are close to maintaining electricity use per student from 2000 levels. While there is a modest increase, it is important to recognize the campus community uses far more electronic devices and equipment than in 2000 (e.g., cell phones, computers, servers, laboratory equipment). It is impressive to maintain consumption on a per student basis given the increased demand from campus users. Our strong position in electricity use per square foot is the result of campus efficiency and conservation efforts like lighting retrofits, building motor upgrades, electronic purchasing policies and practices, and behavior change efforts.



Recent Energy Efforts

To reach our energy-related goals, Skidmore:

- installed LED lighting in campus residence halls;
- installed energy regenerating elevators in Jonsson Tower;
- joined the New York Higher Education Large-Scale Renewable Energy Project consortium to investigate the feasibility of purchasing renewable energy from a large-scale facility through a virtual power purchase agreement.

Future Steps

Future steps will, in many ways, be influenced by grant and incentive dollars and new, innovative partnerships, but possible strategies for meeting Goals 1-3 might include:

- developing additional renewable energy projects, possibly including a second solar or small-hydro project, to decrease scope 2 greenhouse gas emissions;

- developing a construction and renovation policy that guarantees sustainability is integrated into future campus building projects, which also addresses a core issue of concern that arose during the CIS Annex project;
- conducting a 2019 greenhouse gas inventory to identify emission sources and mitigation strategies;
- implementing individual building metering with connection to a common, comprehensive dashboard;
- maximizing the heating and cooling capacity of the Palamountain Lot geothermal bore field to satisfy the energy demands of the new Center for Integrated Sciences and adjacent buildings;
- retrofitting additional lighting;
- implementing scope 1 GHG mitigation efforts such as increasing fleet efficiency to reduce on-campus fossil fuel combustion, converting to electric-powered fleet or equipment, monitoring idling habits, reducing synthetic fertilizer use on campus grounds, and revisiting the campus-wide temperature policy;
- converting the Janet Kinghorn Bernhard Theatre Building to geothermal heating and cooling; and
- developing additional campaigns, programs, and training to promote behavioral changes.



Students mix compost before planting the Skidmore Community Garden's new micro-orchard

Focus Area 2: Food

Food production, processing, and distribution methods are integrally connected to ecosystem and human health. Skidmore is engaged in many initiatives to advance sustainable food purchasing, and the College is actively exploring additional opportunities to reduce GHG emissions from our food choices and support a just, sustainable food system by encouraging more transparency in our supply chain.

Goal: 25% Sustainable Food in Dining Services

Current Progress: Our sustainable food percentage increased from 10% to 11%.

Sustainable Food is primarily defined by the following criteria (note: food items only need to meet one of the five criteria):

- **Local and Community-Based:** These foods can be traced to farms and businesses that are locally owned and operated (within 250 miles). Sourcing local and community-based foods supports the local economy and builds community relations. Foods travel fewer



miles to reach consumers. Seasonal foods, when fresh, often have a higher nutrient content.

- **Fair:** Individuals involved in food production, distribution, preparation- and other parts of the food system — work in safe and fair conditions; receive a living wage; are ensured the right to organize and the right to a grievance process; and have equal opportunity for employment. Fair food builds community capacity and ensures and promotes socially just practices in the food system.
- **Ecologically Sound:** Farms, businesses, and other operations involved with food production practice environmental stewardship that conserves biodiversity and preserves natural resources, including energy, wildlife, water, air, and soil. Production practices should minimize toxic substances as well as direct and indirect petroleum inputs.
- **Humane:** Animals can express natural behavior in a low-stress environment and are raised with no hormones or unnecessary medication.
- **Conscientious:** Business operations are guided by the principles of sustainability. The Food Working Group will consider Certified Benefit Corporations and organizations that routinely publish Corporate Social Responsibility Reports proving consistent ethical and transparent business practices.

Foods that contain ingredients that have been proven harmful to human health or are produced under egregious labor conditions are not considered Sustainable Food.

(adopted from the Real Food Calculator, 2014)

Recent Efforts

To reach our food goal, Skidmore:

- Environmental Studies and Sciences capstone team assembled a portfolio of projects to assess various pathways and the feasibility of achieving our food goal;
- served 275 people at the Community Garden’s annual Harvest Dinner, a volunteer prepared dinner made from sustainable food items;
- continued our Low-Impact Dining effort, a weekly initiative to support sustainable food systems and reduce the ecological impact of our dining hall menu; and
- visited The Farm Bridge, a local food packer in Kingston, NY to explore a possible partnership with Skidmore.

Future Steps

Strategies that may be implemented to achieve our Food goal include:

- continuing to identify partnerships with local growers and distributors;
- improving supply chain transparency with current vendors; and
- enhancing communications efforts to increase awareness of sustainable food procurement in the Murray-Aikins Dining Hall.



Students, and Skidmore's Bag Monster, promote waste awareness during the 2019 Big Green Scream

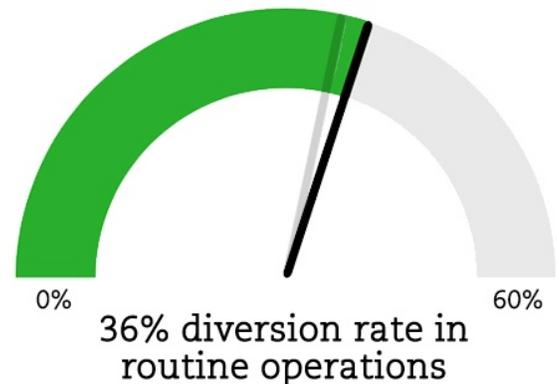
Focus Area 3: Waste

Waste reduction is broad in scope in that it affects all offices and operations across campus, as well as the surrounding community and environment. Skidmore produces general municipal solid waste, hazardous materials, as well as compost and recyclables. With such a large waste stream and many stakeholders, there are numerous opportunities for improvements. The goals outlined below aim to make improvements in different areas of the college.

Goal 1: 60% diversion rate in routine operations

Current progress: The campus diversion rate increased from 34% to 36%.

Skidmore now measures multiple waste streams in our routine operations to provide us with a more accurate assessment of our diversion rate. In total, Skidmore managed 832 tons of material, an 11% increase from the previous year. Of this total, we sent 529.38 tons of material to the landfill, a 7% increase compared to Fiscal Year 2018.

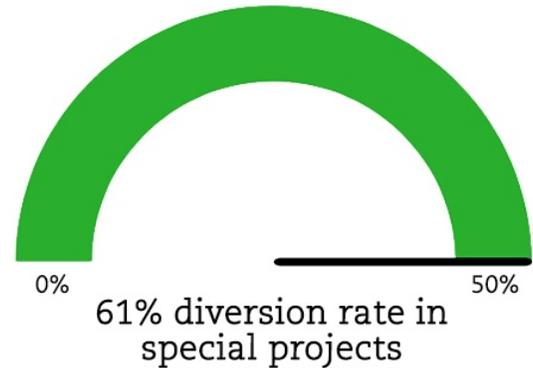


Our 36% diversion rate includes:

- Zero-Sort recycling: 204.12 tons (24.5%)
- Give+Go: ~20 tons (2.4%)
- electronics recycling: 3.59 tons (0.4%)
- light bulb recycling: 1.09 tons (0.1%)
- residential composting: 7.74 tons (0.9%)
- dining hall composting: 56.45 tons (6.8%)
- Feedmore donations: 2.43 tons (0.3%)
- fryer oil recycling: 4.12 tons (0.5%)

Goal 2: 50% diversion rate for special projects

Current progress: 61% of the waste from the Center for Integrated Sciences construction project has been diverted from the landfill. Other special projects and renovations have not been tracked.



Recent Efforts

To reduce waste and increase our diversion rate, Skidmore:

- designed and implemented a more comprehensive campus-wide recycling program for student move-out;
- composted landscaping debris, coffee grounds from dining services, and manure from our horse stables at our larger-scale composting site on Daniels Road;
- diverted over 56 tons of food waste from the landfill through the pre-consumer compost program in the Murray-Aikins Dining Hall;
- donated 40,000 pounds of material to the Backstretch, Trinity Alliance, and Capital City Rescue Mission through Give+Go;
- hosted Game Day Challenge during the Big Green Scream, where students and staff from the Sustainability Office recycled 65% of the material from the event;
- student clubs coordinated composting and recycling collection at Earth Day and Fun Day to bring attention to zero-waste event planning;
- surveyed apartment residents to identify opportunities to improve the on-campus composting program;
- composted over 15,000 pounds of food scraps and coffee grounds from the Northwoods and Sussman Apartment Villages and Dining Services through our student-led program; and
- donated over 4,000 pounds of food to the local food pantry through FeedMore, a student club.

Future Steps

Possible strategies for meeting Goals 1 and 2 include:

- scheduling frequent meetings with our waste hauler to improve communication and enhance our waste programs;

- developing a comprehensive plan to divert construction and demolition material from landfills during all special projects;
- incorporating resource management language in contracts and ensure contractors are following campus waste diversion guidelines;
- continuing to update waste receptacles in residence halls to ensure consistent and convenient bin types and locations;
- identifying methods to accurately measure the amount of material that is donated by Skidmore College during campus renovations;
- continuing outreach and education efforts, including training and campus campaigns about waste management and recycling for the campus community;
- investigating feasibility of reusable containers in catering and campus dining facilities;
- composting post-consumer food waste in the Murray-Aikins Dining Hall;
- expanding composting capabilities at our larger-scale site; and
- providing avenues for students to borrow or sell items to fellow or incoming students to reduce the amount of new items purchased, as well as ways for students to donate unwanted items to local organizations throughout the Academic Year.



Student volunteers re-build a small bridge on the Orange Trail in the North Woods

Focus Area 4: Lands and Grounds

Skidmore currently owns about 1400 acres of undeveloped land distributed across multiple properties with different identities. The North Woods, which is adjacent to the developed portion of campus, is used both by the College for teaching and research and by the Saratoga Springs community for education and recreation. Off-campus parcels include the Denton Road property, site of Skidmore's solar farm, and several wooded properties to the north and west of campus. The campus master plan, the *2007 Campus Plan: A Vision for the Future*, itself due for revision soon, outlines some of the potential future development that could be undertaken on the main campus and adjacent areas.



Goal: Create a comprehensive lands management plan for our lands and grounds

Current progress: The Campus Sustainability Subcommittee continues to develop a comprehensive lands management plan for the College's undeveloped lands.

Recent Efforts

To encourage and practice better stewardship of our land, Skidmore:

- convened the Lands and Grounds Working Group to assess the College's undeveloped land;
- posted signage in Skidmore property boundaries;
- rebuilt a small bridge in the North Woods with student volunteers;
- mapped the perimeter of over 500 acres of undeveloped land;
- continued efforts to map, inventory, and monitor campus trees;
- renewed its Tree Campus USA certification; and
- continued management and removal of several large communities of invasive species, including Japanese knotweed, burning bush, Japanese barberry, and garlic mustard.

Future Steps

To develop a comprehensive land management plan for our lands and grounds, we will:

- develop additional maps of Skidmore properties where needed;
- join the Southern Palmertown Project Guidance Committee to support the community conservation initiative that will connect Saratoga Springs to Moreau Lake State park via a 13-mile multi-modal trail surrounded by thousands of acres of conserved land;
- provide input to the campus master plan, although we recognize that the development of a new campus master plan is outside the purview of the CSS;
- engage various stakeholders in conversations about the recreational, academic, and operational potential of Skidmore's wooded parcels; and
- enhance student engagement, possibly in partnership with other organizations, including the New York State Department of Environmental Conservation, to implement the recommendations put forth in our stewardship plan.



Students, faculty, staff, and the public explore the expo hall at the inaugural Saratoga Sustainability Fair

Focus Area 5: Engagement

We must ensure that our community holds a deep and intersectional understanding of sustainability, and that collectively we are aware of the progress already achieved on campus and beyond. We must strive to be recognized as an institution that values and practices sustainability in our daily operations and decision-making. While we already have over 120 courses that include sustainability, we will continue to offer new educational opportunities and increase our communication efforts to promote sustainability initiatives across campus and in the greater community.



Goal: Make sustainability an essential feature of Skidmore's identity and a value that is integrated into all aspects of the College

Recent Efforts

To enhance the education of our community and advance sustainability at Skidmore and beyond, Skidmore:

- organized over 100 community engagement opportunities, including campus events, volunteer opportunities, class lectures, and campus tours through the Sustainability Office;
- organized, in partnership with Sustainable Saratoga, the inaugural Saratoga Sustainability Fair. The event was attended by over 300 members of the public and included a keynote lecture, an expo hall with over 30 community organizations and student groups, concurrent workshops, an EV car show, and campus sustainability tours;
- maintained its membership as a Leader in the Reforming the Energy Vision (REV) Campus Challenge;
- launched an “eco-partment” certification program in the Sussman and Northwoods Village apartments;
- received a 94 out of 99 in Princeton Review’s Green College’s assessment;
- earned a position on Princeton Review’s Top 50 Green Colleges list (listed at #34); and
- hired 24 students in the Sustainability Office to lead campus programs and complete academic internships.

Future Steps

To ensure sustainability is an essential feature of Skidmore’s identity, we will:

- engage key stakeholders across campus to develop key metrics for our Engagement goal;
- develop a designation for sustainability-focused and sustainability-related courses in the College course catalog;
- complete the College’s second AASHE STARS report;
- conduct a campus sustainability literacy assessment;
- conduct sustainability surveys within the greater community to assess the perception of Skidmore and its relationship to sustainability;
- integrate sustainability into student orientation;
- integrate sustainability into new employee orientation;
- design and implement creative communication materials for the College’s sustainability projects and initiatives, including informative campus signage;
- identify methods to track community engagement and participation in sustainability; and
- identify methods to track how sustainability efforts have influenced the lives and decisions of our students after graduation.

In Conclusion

The *2018-2019 Campus Sustainability Annual Report* details our progress toward the commitments outlined in the *2015-2025 Campus Sustainability Plan*. For the last two decades, Skidmore has implemented both small- and large-scale sustainability initiatives, all of which contribute to the commendable strides we've made across the College. As we look toward 2025, it is critically important to recognize that while we have much to be proud of, we must reaffirm our commitment by thoughtfully considering sustainability in all decisions and planning efforts. Doing so will ensure our current efforts drive us toward achieving our long-term goals rather than relying on smaller, incremental steps, or in some cases, merely maintaining our current progress.

Looking Ahead

Our next report, the *2019-2020 Campus Sustainability Annual Report*, will mark the midway point of our Campus Sustainability Plan. This document will serve as a mid-plan review, simultaneously reflecting on the past while looking to the future. The report will provide a more comprehensive assessment of our efforts over the last five years and outline concrete steps that will take us to 2025. This mid-plan review will also provide our campus community with the opportunity to review, adjust, or reaffirm our sustainability goals and priorities. We look forward to engaging the campus in this important work.