

REDUCE, REUSE, RECHARGE

COLBY-SAWYER COLLEGE GREEN GUIDE

MADE IN COLLABORATION WITH
CAMPUS CLIMATE ACTION CORPS 2024

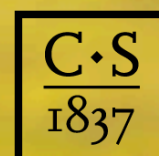


TABLE OF CONTENTS

Introduction	1
What is Sustainability?	2
Sustainability at Colby-Sawyer	3
Office of Sustainability	3
Student Driven History	4
Whole Systems Approach	5
Compost System on Campus	6
Recycling	7
Food on Campus	8
Sustainability Courses	10
Sustainable Classroom	12
Sustainability Core Club	13
ReChargers	13
Gardens on Campus	14
Main Street Garden	15
Permaculture Garden	16
Free Food Fridays	17
Mountain Day	18
Earth Day	19
Ski Day	20
Trails	21
Trails Beyond New London	23
Sustainable Businesses	24
Kearsarge Food Hub	25
Kearsarge Food Co-op	26
Blue Loon Bakery	27
Local Thrift Stores	28

TABLE OF CONTENTS

Local Town Committees	29
New London Energy Committee	30
New London Waste Reduction Committee	31
New London Conservation Commission	32
Ecosystem Restoration at the Overlook	33
The Plan in Action	35
Invasive Species on Campus	36
Burning Bush	37
Norway Maple	38
Japanese Barberry	39
New Hampshire Climate Change	40
Temperature	41
Precipitation	42
Snow Pack & Cover	42
Ice-Out Dates	43
Sea Levels	43
Campus Climate Action	44
About the Authors	47
Contacts	48
References	49

INTRODUCTION

What is Campus Climate Action Corps (CCAC)?

Campus Climate Action Corps (CCAC) is dedicated to educating the community on climate issues such as improving energy efficiency, restoring at-risk ecosystems and conducting home energy walkthroughs. CCAC is a program through Campus Compact, a national coalition of colleges and universities committed to advancing the services of higher education and AmeriCorps. CCAC was launched in 2023. In 2024, CCAC will be a part of the American Climate Corps (ACC). ACC's goal is to increase people's job experience within the green sector to help address the climate crisis.

This document was created by the Campus Climate Action Corps program located at Colby-Sawyer College. The team is made up of the Climate Action Leader, Anna White, as well as Climate Action Energizers and Colby-Sawyer students, Sarah Peabody '25 and Ava Bixby '27. This document aims to serve as a resource guide for all-things sustainability for the Colby-Sawyer community. This document contains how to practice sustainability, how to get involved on campus and resources around campus. Colby-Sawyer and the Lake Sunapee Region are special places and sustainability is ingrained into the community. This guide serves the purpose of educating both new and already established members of the community about sustainability resources.



Campus Compact



AmeriCorps

What is Sustainability?

Sustainability Defined:

“Meeting the needs of the present without compromising the ability of future generations to meet their own needs.”

- United Nations, 1987

The Sustainable Development Goals provide a framework for nations moving towards a more sustainable future.



(<https://sdgs.un.org/>).

Sustainability at Colby-Sawyer

Colby-Sawyer became a charter signatory of the American College and University Presidents' Climate Commitment in 2007, setting it on a trajectory to carbon neutrality by 2050.

In 2010, the board of trustees ratified the GreenROUTES Climate Action Plan for Colby-Sawyer. By 2015, the college achieved a 50% reduction in its greenhouse gas emissions.

In 2017, the college became the 100th institution to sign Second Nature's broadened Climate Commitment.



February 22, 2017

Office of Sustainability

The sustainability coordinator is responsible for tracking the college's greenhouse gas emissions as well as organizing Earth Day.



Student-Driven History

To promote environmental awareness and responsibility on campus, past President Thomas C. Galligan Jr. and Colby-Sawyer students founded GreenROUTES (Redirecting Our campUs Towards Environmental Sustainability) in 2006.

In 2008, students from the GreenROUTES project conducted Colby-Sawyer's first ever greenhouse gas inventory, outlining best practices and policy recommendations for carbon footprint reduction.

10 years later, GreenROUTES students conducted an analysis of the strengths and vulnerabilities of the town and the college relative to climate, food and natural resources.



In 2019, Colby-Sawyer published an addendum to its original climate action plan, the *Blueprint for Resilience & Innovation: Laying the Foundation for Personal Wellbeing, Social Justice, Financial Stability, and Ecological Balance at Colby-Sawyer College*. This document expands the focus from simple on-campus initiatives and climate change mitigation to more collaborative community strategies that promote regional adaptation to the climate crisis.

Whole Systems Approach

Colby-Sawyer recognizes that a whole systems view is necessary to adequately address complex challenges, create more resilient communities, and provide a healthy and sustainable future for all. In the corporate sector, this approach is referred to as a “triple bottom line” where the impacts to people, planet and profit are all given equal consideration.



This perspective is contained within the college’s four Foundational Commitments: personal wellbeing, social justice, financial stability and ecological balance. In everything it does, Colby-Sawyer seeks to leverage all four facets to achieve “...the greatest good, for the greatest number, for the longest time” (Gifford Pinochet).

Everyone has the opportunity to become a change maker during that process—to reexamine their day-to-day actions in order to uncover simple ways to make a positive difference in both their personal and professional lives.



As students explore their passions and develop expertise in their field throughout their college careers, they'll be able to form a unique lens through which to answer those questions and contribute towards whole systems sustainability.



Colby-Sawyer students can each embody the integration of self and service, deliberately seeking to realize their unique purpose and potential, while simultaneously leveraging the vital role each person plays in the achievement of the local and global common good.

Compost System on Campus

Students can sign up to participate in composting through the Office of Sustainability. Each student receives a bin to transport their food scraps to the compost area for the Permaculture Garden behind the library.



RECYCLING

Colby-Sawyer College processes trash and recyclables using a zero-sort system. Meaning, all recyclables are conveniently placed in a single bin.

Items that can be recycled:



Metal:
minum, tin, steel
food cans.



Glass:
bottles and
containers.



Paper:
Office paper
newspaper, paper
bags, and etc.



Plastic:
Containers #1-7,
milk jugs,
detergent, and
shampoo bottles.



Cardboard:
Shipping boxes,
cereal boxes, paper
towels, toilet paper
rolls, and etc.

Items that cannot be recycled:



Food Waste/Liquids



Tanglers: Cords,
ropes, clothes
hangers, etc.



Scrap Metal



Bagged
Recyclables
bottles



Clothes/Textiles

Hard(er)-to-Recycle items:

Colby-Sawyer College also collects harder-to-recycle items that require specialized handling. Blue filing bins for harder-to-recycle items can be found in Colgate Hall and the Dining Hall.



Plastic Bags



Ink Cartridges



Batteries



Electronics

FOOD ON CAMPUS

Signage in Dining Hall

In Spring of 2024, the Sustainability Committee created new signage to better direct waste and reduce cross-contamination within the compost system.



Where Does The Food Go?

Food scraps from the dining hall are placed into an EcoVim dehydrator for processing before being transported to a local farm for composting. Small-scale on-campus composting is also practiced in the Environmental Studies Green Suite, where a Vermicompost system is used. All other food waste is independently discarded/composted by students, faculty and staff.



Feed the Freezer

Feed the Freezer is a student-run outreach program that strives to combat local food insecurity and decrease on-campus food waste.



Feed the Freezer volunteers collect excess food from the dining hall and divide it into individual frozen meals for food pantries.



Around the holidays, volunteers place collection boxes around campus for students and staff to donate unwanted food they have. Since its start in 2013, Feed the Freezer has donated over 7,000 pounds of food to two local food pantries.



SUSTAINABILITY COURSES

ENV218: Principles and Practice of Sustainability

Course Description: In this course, students learn to take a whole systems approach to some of the interconnected social, economic and environmental issues that impact human quality of life on personal, regional and global levels. Students examine some of the ecological and value-based drivers of these challenges. They explore ways that the active integration of mindsets, practices and tools from multiple fields can leverage deeper understanding and more effective, broad-based solutions.



ENV315: Sustainable Food Systems

Course Description: People eat food every day, but their choices have implications. A food system is the function of several forces and factors like history, laws, policy and economy. Not only does personal well being depend on food, but public health, poverty and community resilience are all related to food. This course focuses on the production, distribution, and consumption of food - in ways that are economically, environmentally and socially sustainable. This course takes an interdisciplinary approach to the topic and looks at food systems from multiple perspectives.



SUSTAINABILITY COURSES



ENV325: Global Sustainability

Course Description: This course utilizes a global framework to situate sustainability. Weaving environmental, developmental, cultural, historical, political, psychological, philosophical and economic perspectives to understand sustainability, students investigate the complex nature of global crises now confronting humankind and the natural world. Working cooperatively, students research and present global solution sets for these manifold problems. Students address these complex global problems by acting locally and by working with a community partner on a local issue. Examples include food security, public health, personal well being, and biodiversity.

ENV308: Permaculture Design Certificate

Course Description: Permaculture is the study and practice of the way human beings as individuals and societies can participate in the creation of ethical and ecological support systems. This course presents a whole systems design approach that integrates plants, animals, buildings, people, communities and the landscapes that surround us. This course is designed to introduce students to the ethics, principles and practice of permaculture design through collaboration on real-world projects with an eye towards repairing, restoring and regenerating human ecosystems.



SUSTAINABLE CLASSROOM



Better known as the Sunshack, this building was designed and built by over 100 students starting in 2012 to create more environmental awareness and action on campus. All of its materials were locally sourced, and it was designed to use as little energy as possible.

The low-emissivity south facing windows let the indoor temperature change naturally. The heat is trapped in the cob benches and concrete floor during the day and is released at night. This keeps it cool during the day and warm overnight.

Every wall uses a different natural insulation system. The east and west walls use twelve to fifteen inches of packed cellulose, the north wall uses eighteen inches of straw bale and six inches of packed cellulose, and the south wall uses twelve inches of a straw-clay mixture.



SUSTAINABILITY CORE CLUB



ReChargers

Initiated in 2012, ReChargers is one of the club's biggest events. This is when students donate things they no longer want or need at the end of the school year to the club, then the club puts on a sale at the beginning of the following fall semester to sell the items to students who need them. This prevents used items that still have utility from being thrown away or not being used at the end of the year. Any items that the club still has after the sale are donated to thrift stores and other local places who will take them.

The event did come to a temporary pause when COVID hit but it is properly returning this year.

Sustainability Core Club meets biweekly on Mondays at 7 pm. This club aims to educate fellow students about sustainable practices. This includes promoting shopping for Fair Trade Certified products. These products are sustainably made and produced with the farmers' livelihood in mind, unlike many products available in the store.



GARDENS ON CAMPUS



**Main Street
Garden**

**Permaculture
Garden**

PERMACULTURE GARDEN



Started in 2010, this garden is located behind the library. Professor Leon-C. Malan takes care of this educational garden. Signs teach what each of the plants are and a little bit about them.

The garden really started to take shape in 2011, when former Director of Sustainability & Innovation, Jennifer White, took the Permaculture Design Certificate course and made a design for the garden. The following class of students was given sections of her design to make more specific implementations.



MAIN STREET GARDEN

The Main Street Garden is adjacent to the President's House, located on Main Street across from Colgate Hall. The Main Street Garden was established in 2021 to help combat food insecurity within the community. The garden is managed by Professor Leon-C. Malan and his student interns. It produces a variety of vegetables that are occasionally offered for free on the front lawn of campus.



FREE VEGGIE FRIDAY



Every Friday in the summer, surplus crops from the gardens are available to the Colby-Sawyer community. Any leftover food at the end of the day is then offered to the New London community members.

Surplus during the week will be delivered to the Kearsarge Food Hub, Spring Ledge Farm and the New London Hospital.



MOUNTAIN DAY



In the fall semester, the President of the college chooses a day to cancel classes for Mountain Day. The students are unaware of when it will occur until the bell rings at 10:05 AM the day of. Everyone rushes to get on the buses to climb Mount Kearsarge together! This has been a cherished tradition since the 1850s.



EARTH DAY



Earth Day is celebrated worldwide on April 22 to promote support for environmental protection.

Every year, Colby-Sawyer holds activities and events leading up to Earth Day.

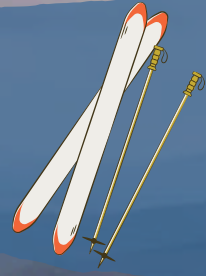
During this week, the school hosts a Earth Day Service Event. On this day, students, faculty and staff can all volunteer to help work to improve the campus. This can include reapplying mulch around trees and shrubs, planting flowers and removing invasive species. The volunteers are put into different groups to carry out these tasks. This has been a great way to bring people on campus together and work towards helping the environment.



On the Earth Day Service Event in 2024, one group worked on removing Japanese barberry that is in the surrounding area of the swamp on campus.



SKI DAY

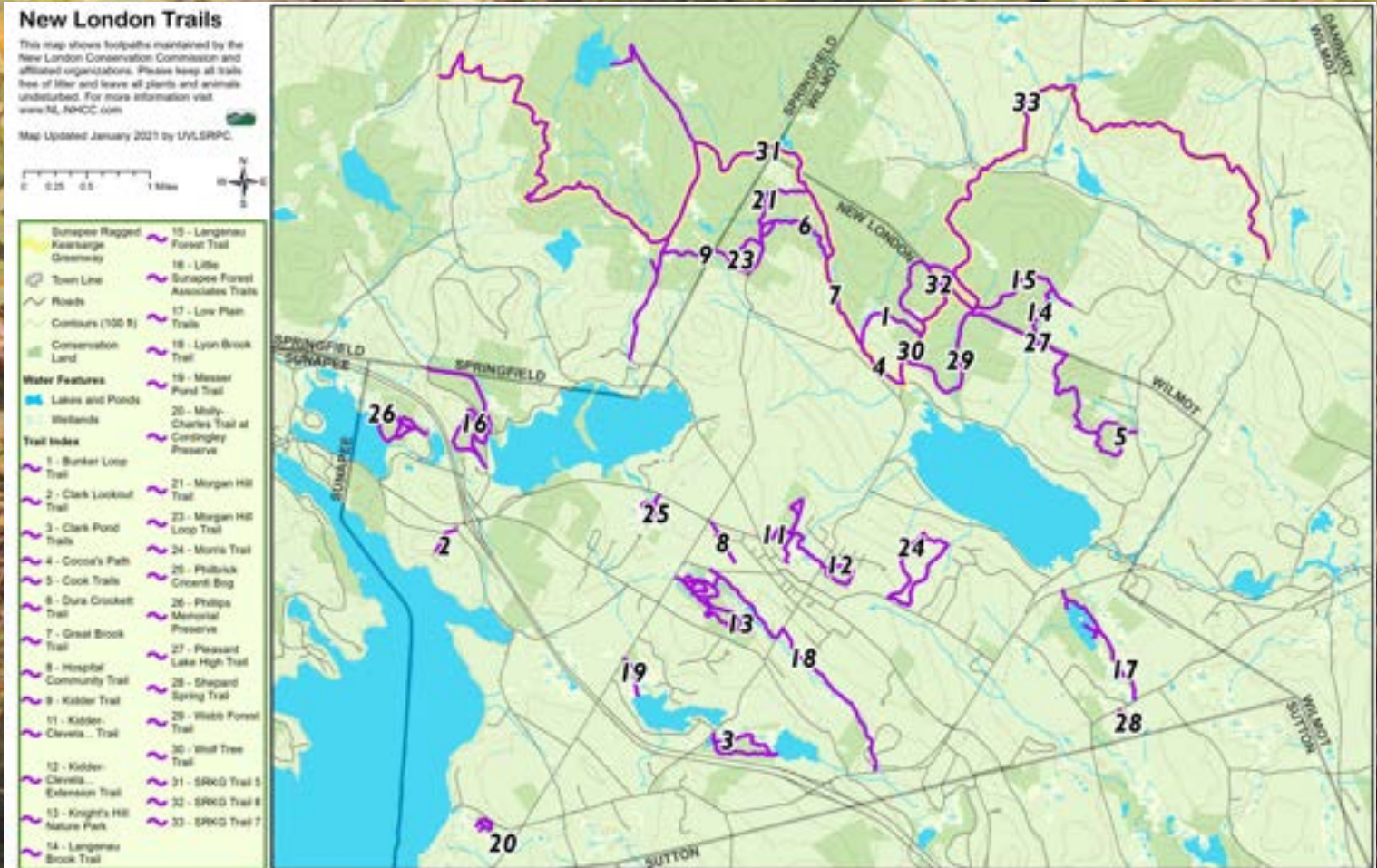


Wesson Honors students reignited a Colby-Sawyer tradition by bringing back Ski Day! A day of canceled classes, skiing on Mount Sunapee, playing games in the Lodge, and roasting marshmallows.

Colby-Sawyer undergraduate students receive free season passes to ski and snowboard at Mount Sunapee.



TRAILS



The New London Conservation Commission (NLCC) has developed, maintained, and marked over 25 miles of hiking trails. These trails are in close proximity to campus and are ready to be explored. The NLCC has a Patch Challenge to incentivize people to get outside and explore New London's Trails. To earn a patch, one must hike all 29.05 miles of trails.



Philbrick-Cricenti Bog Loop - 1 mile

Home to an array of rare plants, the Philbrick-Cricenti Bog Loop draws visitors from across the Northeast.

[Learn more here.](#)



Morris Trail - 1.8 miles

Located along the Kelsey Athletic Fields, the Morris Trail offers students a peaceful break from the classroom.

[Learn more here.](#)

Clark Lookout - 0.8 miles

Seeking spectacular mountain views without the strenuous trek? Look no further than Clark Lookout Trail!

[Learn more here.](#)



Low Plains Trail - 2 miles

Located in Esther Currier Wildlife Management Area, the Low Plains Trail offers breathtaking pond and mountain views. [Learn more here.](#)

[View the Complete List of Trails Here](#)

TRAILS BEYOND NEW LONDON



Mount Major Trail - 4.6 miles

Alton, New Hampshire

Located in the scenic Lakes Region, Mount Major offers panoramic views of Lake Winnepausake and the majestic White Mountains.

Mount Cardigan Loop Trail - 3.1 miles

Orange, New Hampshire

As the tallest mountain in central New Hampshire, Mount Cardigan offers panoramic views of the White Mountains.



Sunapee Mountain via Andrew Brook Trail - 6.2 Miles

Newbury, New Hampshire

This gorgeous hike offers wild views of Lake Solitude and mountains.

SUSTAINABLE BUSINESSES

**KEARSARGE
FOOD HUB**



**KEARSARGE
FOOD CO-OP**



**BLUE LOON
BAKERY**



THRIFT STORES



KEARSARGE FOOD HUB

The Kearsarge Food Hub was started in Bradford, NH, in 2014. They began by growing food on small plots of land donated by community members. This became Sweet Beet Farm. Eventually, they received another community donation of architectural plans for a food stand so they could sell their vegetables and other local farmers' vegetables as well. This stand was open by July 2015 and sold vegetables, jam, and meat all produced within a 30-mile radius of Bradford.

In 2016, Kearsarge Food Hub gained the opportunity to open Sweet Beet Market in the old town inn. They have continued to develop since then and have done a lot to help the community.



Watch Co-Founder and Community Engagement Coordinator Hanna Flanders' Tedx Talk:
Becoming Ourselves: How to Grow Community.



Learn More By Visiting Their Website:
[Kearsarge Food Hub](https://www.KEARSARGEFOODHUB.COM)

KEARSARGE FOOD CO-OP

The Kearsarge Cooperative Grocer opened in June of 2009 as a sister location to the Concord Food Co-op. This co-op provides high-quality organic and local food to the area, with selections changing seasonally.



The Kearsarge Food Co-Op is located in New London at 52 Newport Rd. It is open from 9:00 AM to 6:00 PM Monday through Saturday and from 10:30 AM to 4:30 PM on Sundays.

Learn More By Visiting
Their Website:
Kearsarge Food Co-Op



**CONCORD
FOOD CO-OP**

Community Owned Since 1982

An Entity of Concord Food Co-Op

BLUE LOON BAKERY



Blue Loon Bakery was opened in 2018 by Laurie Schive and Mike Morgan. Blue Loon specializes in artisan-style breads and pastries made with locally sourced ingredients.

Blue Loon is a member of Too Good To Go (TGTG), a Danish app that was developed in 2015 to reduce food waste, food insecurity, and greenhouse gas emissions. Participating restaurants package excess food and sell their goods at reduced rates.



At Blue Loon, uneaten food products like pastries are packaged and sold at lower prices to the local community, promoting sustainable food waste management in the Dartmouth-Lake Sunapee Region.

Learn More Here:
[Blue Loon Bakery](#)

LOCAL THRIFT STORES

Shopping at thrift stores is a great way to save money and give used items a new life! Alternatively, thrift shops can be a good way to give items you no longer need a second life as well. Below are some thrift stores in the New London area.

Switchback Consignment

New London, New Hampshire

Offering seasonal clothing & shoes.

Andover Service Club Thrift

Andover, New Hampshire

Offering an assortment of secondhand items.

VNA Renaissance Shoppe

New London, New Hampshire

Offering furniture, cooking supplies, dinnerware, & more!

Sunapee Thrift Shop

Sunapee, New Hampshire

Offering lightly used clothing.

Go Lightly Consignment

New London, New Hampshire

Offering women's clothing, & furniture.

Newport Thrift Shoppe

Newport, New Hampshire

Offering clothing & houseware.

Endless Treasures

Newport, New Hampshire

Offering antiques, collectibles, & furniture.

Family Closet Thrift Boutique

Warner, New Hampshire

Offering clothing & accessories.

NEW LONDON TOWN COMMITTEES

ENERGY COMMITTEE



WASTE REDUCTION COMMITTEE

CONSERVATION COMMISSION



ENERGY COMMITTEE

The New London Energy Committee is focused on helping the community reduce carbon emissions, save energy, and save money through adopting energy efficient practices and renewable energy.



The committee meets on the first Wednesday of each month in the Syd Crook Conference Room at 7:00 PM in spring, summer, and fall, and at 5:00 PM in winter. Anyone is welcome to attend these meetings. They also have a Zoom meeting available to those who cannot attend in person [here](#).

Learn More Here:
[New London Energy Committee](#)

WASTE REDUCTION COMMITTEE

The New London Waste Reduction Committee works to reduce the amount of waste that the town disposes of. They have a sustainable disposal chart on their website that lets people know where they can get rid of certain items that still have use. This includes clean reusable bags, clothing, sheets, towels, carpets, curtains, lamps, computers, scanners, TVs, kitchen dishes, small appliances, and more.



The committee meets on the third or fourth Thursday of each month in Whipple Memorial Hall at 10:00 AM. Anyone who is interested is welcome to attend these meetings. The date can be checked on the calendar [here](#).

Learn More Here:
[New London Waste
Reduction Committee](#)



CONSERVATION COMMISSION

The New London Conservation Commission (NLCC) works to maintain the town's natural surroundings. They manage many hiking trails throughout the town, including the popular Esther Currier Wildlife Management Trail.



NLCC meets on the third Wednesday of each month in Whipple Memorial Hall at 8:30 AM. Anyone who is interested is welcome to attend these meetings. They will usually record the meetings as well so community members can still see how the meeting went even if they do not attend. The recordings of their meetings and of other committees can be found [here](#).

Learn More Here:
[New London Conservation Commission](#)

ECOSYSTEM RESTORATION AT THE OVERLOOK

The scenic Overlook in Esther Currier Wildlife Management Area is infested with Japanese knotweed.



To protect native wildlife, CCAC joined forces with NLCC to tackle the infestation. The two developed a long-term knotweed removal and prevention plan, which will span 10+ years.



THE PLAN

- Allow the knotweed to grow to full height.
- In June, cut the knotweed down to the ground.
- Dry the stems out in the sun on an impervious surface.
- Compost once brown.



- Cover the ground with 3-4" of mulch to prevent the cut stems from piercing through the plastic covering.
- Cover the area with a thick black plastic or tarp (7 mm+).
- Extend the plastic a few feet outside of the infestation site to prevent the sun from reaching the knotweed.

- Top the plastic with 5-7" of wood chips.
- Monitor the site for 10+ years. Patch holes and remove knotweed as necessary.
- Remove the covering materials after 10+ years. Replant the area with native plants.



THE PLAN IN ACTION

On June 20th, 2024, CCAC and NLCC hosted a volunteer cleanup at the Overlook. On this day, seven people - CCAC members, NLCC members, and volunteers - removed and sealed 1/3 of the infestation. An additional 1/6 of the infestation was addressed in the following weeks. Many thanks to Tom Conway Tree Service, NLCC, and volunteers for making this project possible!



[Learn More About the Project Here](#)

INVASIVE SPECIES ON CAMPUS

BURNING BUSH



NORWAY MAPLE



JAPANESE BARBERRY



BURNING BUSH

Plant Identification:

Leaves: 1-2 inch oppositely arranged, green football-shaped leaves. Crimson colored in the fall.

Flowers: Small green flowers held in groups of three on the stems.

Fruits: Red fruits with split, purple husks that expose four red-orange seeds.

Stems: Bright green with raised tan "wings."

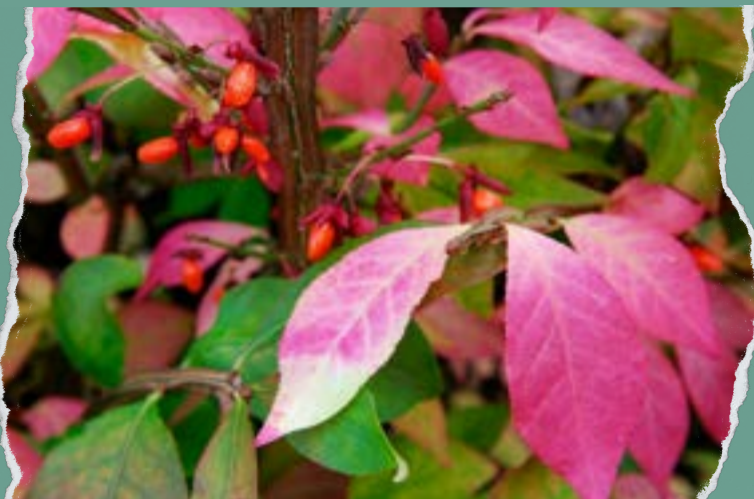
Size: Up to 15 feet tall.

Removal:

Using a saw or other cutting device, cut the stems near the ground. Treat the stumps with glyphosate or triclopyr to prevent resprouting.

Disposal:

Discard plant materials in the garbage or compost them after removing the seeds, berries, and blossoms.



Replacements:

- Highbush Cranberry
- Highbush Blueberry
- Fothergilla
- Redvein Enkianthus
- Red Chokeberry

Where It Is On Campus:

Burning bush can be found in numerous flower beds on campus and within the forest neighboring the Permaculture Garden.

NORWAY MAPLE

Plant Identification:

Leaves: Green palmate leaves with 5 tooted pointed lobes. Leaves are wider than they are long.

Flowers: Small-yellowish green flowers in clusters of up to 30.

Seeds: Double-winged samaras.

Bark: Light gray to greenish-gray bark marked by prominent furrows.

Size: 65-100 feet tall.

Removal:

For full-grown trees, use an ax or chainsaw to cut down the tree. Treat the stump with an herbicide to kill the root system and to prevent sprouting. For young trees, remove the tree with a weed wrench.

Disposal:

Compost the tree or bring it to a woodchipper.



Replacements:

- Red Maple
- Sugar Maple
- Northern Red Oak

Where It Is On Campus:

Norway maple can be found along the marshlands of Susan Swamp.

JAPANESE BARBERRY

Plant Identification:

Leaves: Small, spoon-shaped green leaves with smooth edges.

Flowers: Six-petaled, creamy yellow flowers in clusters of 2-4.

Fruits: Oval shaped, bright red berries.

Stems: Rusty brown, deeply grooved stems with a vibrant yellow interior.

Size: A compact and dense shrub less than 4' tall.

Removal:

Early in the season, pull the entire plant out by hand, with a hoe, or with a mattock.

Disposal:

Discard plant materials in the garbage.



Replacements:

- Red Osier Dogwood
- Northern Arrowwood
- Northern Wild Raisin
- Speckled Alder

Where It Is On Campus:

Japanese barberry can be found in front of Colgate Hall and along Susan Swamp, including the bordering forest.

NH CLIMATE CHANGE

What is Climate Change?

Climate change is defined as long-term (30+ years) local/regional/global changes in average temperature, humidity, and rainfall patterns.



In 2019, New Hampshire emitted 15.8 million metric tons of carbon dioxide equivalents.

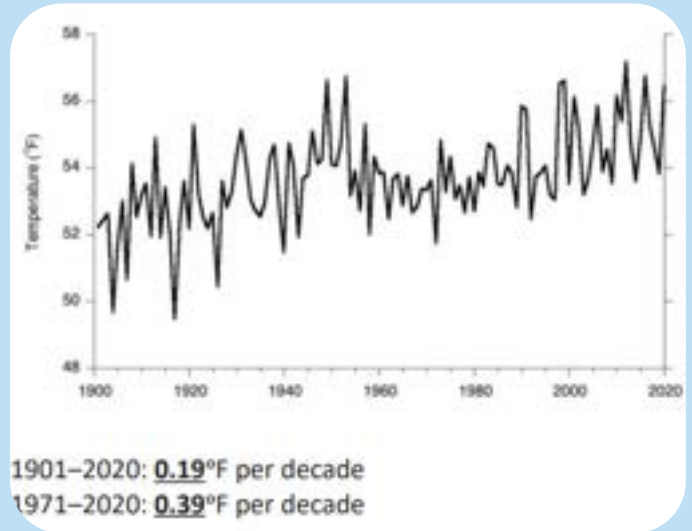
Transportation generated 47% of these emissions; the residential sector generated 19%; electrical power generated 11%; the industrial sector generated 10%; the commercial sector generated 9%; and waste generated 1%.

TEMPERATURE

TEMPERATURES HAVE INCREASED

> 3 °F

SINCE 1900 IN NEW HAMPSHIRE



Temperatures increased by 0.19 °F per decade between 1901 and 2020 and 0.39 °F between 1971 and 2020. Mean annual minimum-temperatures climbed 3.5 °F between 1901 and 2020 and 3.1 °F between 1971 and 2020.

TEMPERATURES WILL INCREASE

9.2–9.5 °F

BY 2100 UNDER THE HIGHER EMISSIONS PATHWAY

RISING TEMPERATURES...

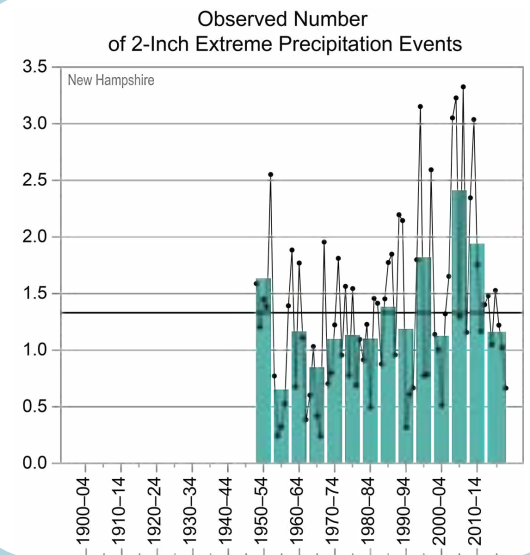
- Threaten New Hampshire's winter recreation and maple sugaring industries.
- Increase the frequency of extreme weather events.
- Compromise New Hampshire's ecosystems.



PRECIPITATION

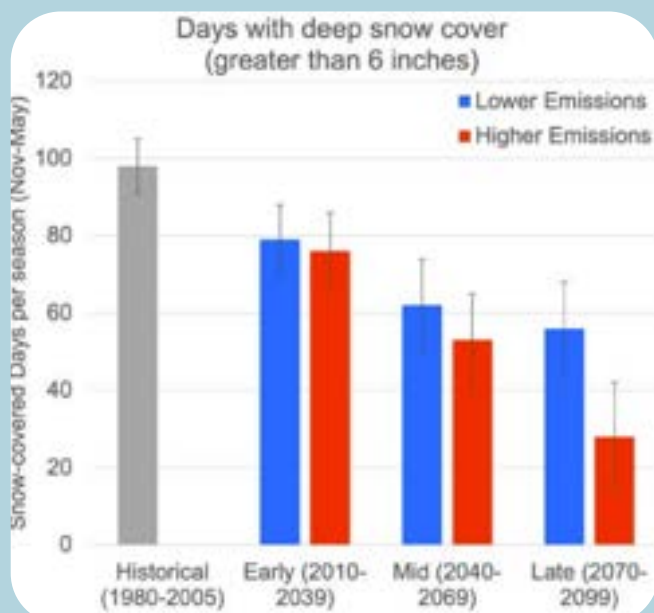
**TOTAL ANNUAL
PRECIPITATION INCREASED BY
19%
FROM 1901 TO 2020**

The graph indicates that there is increased variability in New Hampshire's precipitation patterns. The frequency of extreme precipitation events is expected to double by 2100.



(statesummaries.ncis.org)

SNOW PACK & COVER



**SNOW WATER EQUIVALENTS
DECREASED BY**

40%

**BETWEEN 1971 AND 2019 IN
THE SUNAPEE WATERSHED**

Historically, NH averages 100 days with 6+” of snow cover. By 2100, this will be < 60 days under the lower emissions pathway and < 30 days under the higher emissions pathway.

(NH Climate Assessment 2021)

ICE-OUT DATES



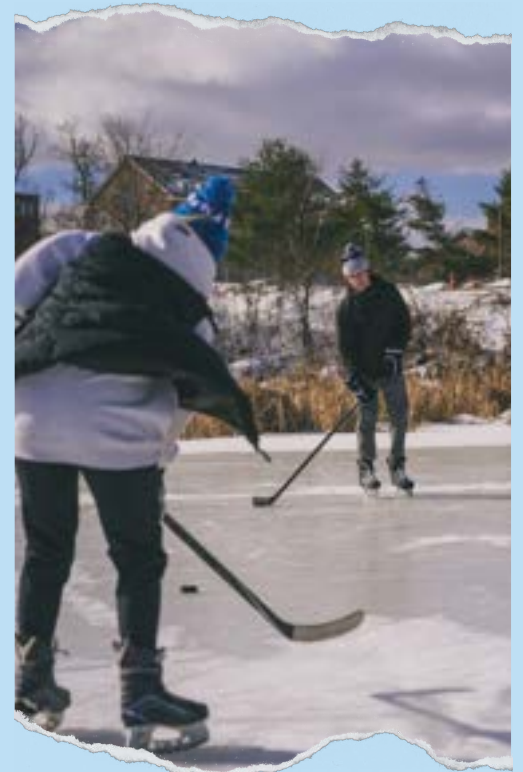
Between 1971 and 2019, ice-out dates have occurred 11 days earlier on Lake Sunapee.

The rates at which New Hampshire lakes thaw are expected to continue to increase over the century.



SEA LEVELS

From 1926 to 2019, sea levels have increased by 8.04 inches in Portsmouth Harbor. This is consistent with the global average sea level rise of 7-8 inches. Assuming Portsmouth Harbor were to continue to follow the global trend, it is predicted that New Hampshire's sea levels will rise by an additional 1-8 feet by 2100.



CAMPUS CLIMATE ACTION



Contact facilities if a problem is found!

Address maintenance issues before they cause great damage.

Attend local committee meetings.

Stay up to date and support local sustainability efforts by attending NLCC, NLEC, and NLWRC meetings.



Get involved! Join sustainability clubs on campus.

Join the Sustainability Core Club, enroll in sustainability-based classes, and support sustainability initiatives on campus.

Utilize CCAC's resources.

Find information on energy efficiency, Environment for Everyone Campaign materials, and the campus climate action toolkit [here](#).





Use a laptop instead of a desktop.

Laptops are almost always more efficient than desktops, consuming less energy. For example, an idling 13" MacBook Pro uses up to 3.25 watts of energy; an idling 21.5" iMac uses up to 27.8 watts of energy!

Carpool, walk, and bike.

In 2022, transportation accounted for 28% of U.S. greenhouse gas emissions. Reduce this number by walking, biking, and carpooling when possible.



Eat less beef.

The beef industry accounts for 18% of U.S. methane emissions, a greenhouse gas 80 times more potent than carbon dioxide.

Buy local food.

Locally sourced foods require less transportation and often endure less energy intensive agricultural practices.



Use a reusable water bottle.

Every year, 50 billion single-use plastic water bottles are sold in the U.S. These bottles end up in landfills or add to 5.25 trillion items of plastic waste in the ocean. Protect the environment with a reusable water bottle.



Use a power strip for electronics and turn them all off when away or asleep!

Reduce vampire power by investing in smart power strips and/or unplugging electronics when they are not in use.

Turn down heat when away or asleep and keep windows closed to reduce heat loss!

Avoid unnecessary energy consumption by turning down the heat while in class or at night.



Take cold showers.

Not only do cold showers increase your blood flow and boost your immune system, but they require less energy!

Aim for a 5-minute shower.

Conserve energy and water by taking a quick 5 to 10-minute shower.



Wash clothes in cold water.

Heating accounts for 90% of the energy consumed by washing machines. Cold water not only reduces energy use, but extends the life of clothing.



ABOUT THE AUTHORS

Anna White

Climate Action Leader

Anna started as the Climate Action Leader with the goal of learning more about how to make a community more sustainable.



Ava Bixby '27

Climate Action Energizer

Ava is studying environmental science at Colby-Sawyer College. Passionate about environmental education, Ava became a Climate Action Energizer with the intention of promoting local climate awareness. Ava is also the education and social media coordinator for the Global Green Burial Alliance, an international network of eco-friendly funeral professionals.



Sarah Peabody '25

Climate Action Energizer

Sarah is a business administration major with a studio art minor at Colby-Sawyer College. She joined this program to educate about sustainability and learn more herself. Sarah is also the president of the Sustainability Core Club on campus.



CONTACTS

Sustainability Office:

Zoë Tice Adams
Sustainability Coordinator
603.526.3793 | zoe.adams@colby-sawyer.edu

Department of Environmental Science and Studies:

James Jukosky
Associate Professor
School of Arts & Sciences
603.526.3379 | james.jukosky@colby-sawyer.edu

Nicholas Baer
Professor
603.526.3066 | nbaer@colby-sawyer.edu

Harry Compton
Adjunct Professor
harry.compton@colby-sawyer.edu

David Lutz
Assistant Professor
david.lutz@colby-sawyer.edu

Leon-C. Malan
Professor
603.526.3632 | lmalan@colby-sawyer.edu

Permaculture Garden:

Leon-C. Malan
Professor
603.526.3632 | lmalan@colby-sawyer.edu

Facilities Department:

603.526.3699



REFERENCES

Allee, D. & Hoplamazian, M. (2021). *Where Does Your Power Come From? We Answered Your Questions About the N.H. Energy System*. New Hampshire Public Radio. <https://www.nhpr.org/nh-news/2021-11-23/energy-climate-change-nh>

Blue Loon Bakery. <https://www.blueloonbakery.com/>

Boom, D. (2019). *Climate Change: 9 Ways You Can Make a Difference*. CNET. <https://www.cnet.com/science/climate-change-9-ways-you-can-make-a-difference/>

Colby-Sawyer College. www.colby-sawyer.edu

Colby-Sawyer College. *Sustainability Blueprint*. <https://colby-sawyer.edu/assets/sustainability/sustainability-blueprint.pdf>

Everson-Shaw, B. *Maine Moose in Fall*. <https://www.brendaeverson.com/october-moose-hunt-women-veterans-hunt/maine-moose-in-fall>

Kearsarge Food Hub. <https://www.kearsargefoodhub.org>

Lemcke-Stampone, M., Wake, C., & Burakowski, E. (2021). *New Hampshire Climate Assessment 2021*. University of New Hampshire. <https://scholars.unh.edu/cgi/viewcontent.cgi?article=1071&context=sustainability>

NASA. *What is Climate Change?* <https://science.nasa.gov/climate-change/what-is-climate-change/>

New Hampshire Fish & Game Department. *Moose in a Changing Climate*. <https://www.wildlife.nh.gov/wildlife-and-habitat/moose-new-hampshire/moose-changing-climate>

NOAA National Centers for Environmental Information. *State Climate Summaries 2022: New Hampshire*. <https://statesummaries.ncics.org/chapter/nh/>

Sherman, D., & Montgomery, D. (2023). *Environmental Science and Sustainability*. W.W. Norton & Company, Inc.

Sweet Beet Market. <https://www.sweetbeetmarket.com/>

Town of New London. *Energy Committee*. <https://newlondon.nh.gov/energy>

Town of New London. *Waste Reduction Committee*. <https://newlondon.nh.gov/index.asp?SEC=B20D789F-3F7D-434F-995A-561B54CEAC15>