



# 2023-2024 Sustainability and Climate Action

[barnard.edu/sustainability climate action](https://barnard.edu/sustainability-climate-action)

# BARNARD



## REFLECTION & RENEWAL

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During the 2023-24 academic year, we continued to make significant strides toward our sustainability and climate action goals. From Barnard's pledge to attain net zero emissions by 2040 to the ever wider enactment of strategies to cut waste, reduce our carbon footprint, and expand our academic offerings, Barnard is working to create a more sustainable campus, an equitable New York, and a thriving future.

Among the highlights, Barnard received a gold rating on the AASHE STARS report, a transparent framework used by colleges and universities across the country to rate sustainability performance. Since our first submission in 2020, for which we received a silver rating, Barnard notched several points of distinction, including:

**AY 21** Barnard hosted a Climate and Sustainability Campus Conversation Series, including the first Climate-themed Citizen's Assembly in the United States. We built on this leadership in 2023 by collaborating with colleagues from across New York to host the Bard College Democracy Innovation Workshop: Citizens' Assemblies and Beyond.

**AY 22** Barnard worked with Energy Strategies to develop an innovative Comprehensive Scope 3 emissions measurement tool. Columbia University is now using a similar approach.

**AY 23** In March of 2023, Barnard College collaborated with Manhattan Borough President Mark Levine and the Columbia Climate School to celebrate the first NYC Circularity Day. The day recognized local circularity champions and launched new initiatives to support small businesses, community organizations, and schools.

Our 2023 gold rating also rests on our steady work to reduce emissions from our buildings and electricity. We received 5.65 STARS points out of 6 for Building Energy Efficiency, and continue to source 16% of our electricity from NYS hydropower, and offset the remainder while we actively pursue additional sources of renewable power. These efforts align with our efforts in academics, dining, grounds, and more.

We are poised to bring our sustainability practice to even higher levels.

We look forward to working to meet President Laura Rosenbury's stated target of 2040 for net zero emissions—a critical step that will provide a north star for our efforts moving forward.

Sincerely,  
Sandra Goldmark

2023-24

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# CLIMATE ACTION 2023-2024: BY THE NUMBERS

## ACADEMICS



DEGREES

**6**

SUSTAINABILITY-RELATED DEGREES



PEDAGOGICAL SUPPORT

**4**

CEP WORKSHOPS WITH 84 PARTICIPANTS, 2020-2023  
1 TEACHING SYMPOSIUM



COURSES

**71%**

OF DEPARTMENTS OFFER SUSTAINABILITY CONTENT

## CAMPUS CULTURE & OPERATIONS



PATHWAY TO NET ZERO

**65%**

REDUCTION IN SCOPE 1 & 2 GHG EMISSIONS PER CAPITA IN 2019 FROM 2005 LEVELS

**92%**

OF FACULTY AND STAFF REPORTED THEY COMMUTE TO WORK SUSTAINABLY IN FY23



FOOD

**44%**

OF FOOD/BEVERAGE EXPENDITURES ON PLANT-BASED FOODS IN FY 2022

**70**

TOTAL HOURS OF PEER TO PEER STUDENT WASTE SORTING EDUCATION



CIRCULAR CAMPUS

**125**

DORM KITS DISTRIBUTED TO ACCESS BARNARD STUDENTS

**83%**

OF CLEANING AND JANITORIAL SUPPLIES ARE CERTIFIED SUSTAINABLE IN 2022

## FINANCE & GOVERNANCE

AASHE STARS  
**GOLD**  
RATING

**NET ZERO**  
BY 2040

CLIMATE ACTION COMMITTEE  
5 FACULTY  
10 STAFF  
2 STUDENTS



# ACADEMICS

Our growing climate curriculum powerfully aligns with our commitment to developing the next generation of sustainability leaders. 71% of our departments offer research and scholarship in climate and sustainability related topics.

In addition to expanding the curriculum, our faculty members have collaborated on breakthrough research.

- Maria Rivera Maulucci, Hilary Callahan, and Stephanie Pfirman published "[Transforming Education for Sustainability](#)," with chapters by numerous Barnard faculty and staff.
- Linn Mehta, Nathan Gorelick, and Ross Hamilton received a DEI FIT grant to enhance their Environmental Humanities course "Slowing Violence: Humanistic Approaches to Climate Change."
- Melissa Wright, Alex Pittman, Sandra Goldmark, and Laurie Postlewaight's article "Leading from Within: Climate Co Teaching at Barnard College " will be published by New Directions in Teaching and Learning.
- Barnard co hosted the "Everyone Can Teach Climate" symposium with the Columbia Climate School.

An expression of our ever growing climate focused academic offerings, In 2023, Barnard partnered with the Climate School and the Columbia Registrar to add a "Sustainability" tag to each course in the catalog. Soon, this will enable students to search the thousands of courses in the entire catalog, and peruse the 2,000+ courses that have already been tagged. Barnard's early work counting courses by hand laid the critical groundwork for this major step forward with our Columbia University colleagues.

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# 146

**SUSTAINABILITY COURSES  
OFFERED IN 30 DEPARTMENTS  
IN 2023-2024**

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# COURSE HIGHLIGHTS

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Here is a selection of Barnard's faculty climate and sustainability-related topics in a wide range of disciplines:



## ***CITY, LANDSCAPE, ECOLOGY***

### **Ralph Ghoche**

A thematic course exploring landscape, land settlement, and ecology of the past two centuries, Ghoche's course examines changing attitudes toward nature from the 18th century to today, highlighting the crucial role of artists and architects in revealing environmental degradation and solutions to human impact on the environment.



## ***URBAN ENVIRONMENTAL JUSTICE: GENDER, RACE, CLASS AND THE ENVIRONMENT***

### **Jenna Davis**

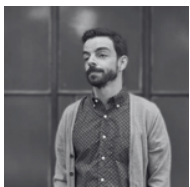
This course explores urban environmental inequalities, examining why some see health and others see harm in the environment. Through case studies, students analyze social, political, and economic factors, and discuss racism's role and global racial justice movements in environmental exploitation.



## ***ECOLOGY, EVOLUTION, AND ENVIRONMENTAL BIOLOGY***

### **Hilary Callahan**

Callahan's course serves as an introduction to evolutionary ecology, covering topics such as life history strategies, population growth, competition, predator-prey interactions, population regulation, species diversity, community organization, and biogeography. Lectures integrate theory with empirical studies.



## ***ARCHITECTURAL DESIGN: ENVIRONMENTS AND MEDIATIONS***

### **Ignacio G. Galán**

This architectural design studio course explores modes of visualization, technologies of mediation and environmental transformations. These explorations will be used as catalysts for architectural analysis and design experimentation.



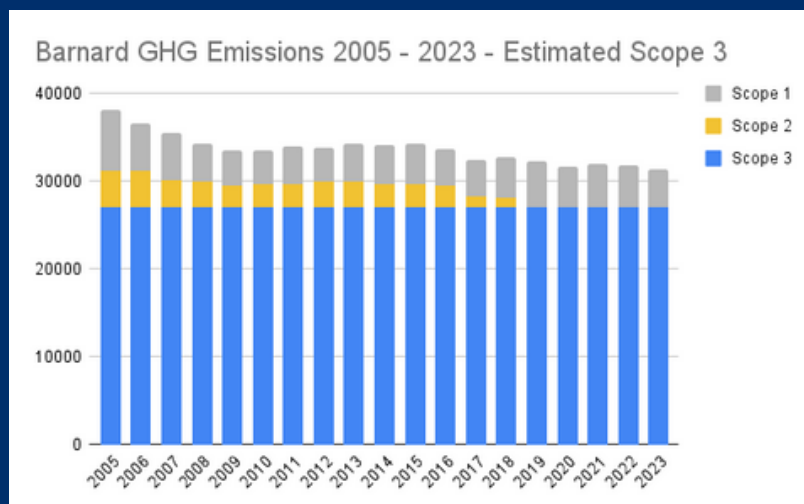
## **RESEARCH HIGHLIGHT**

The Barnard Design Center is working with Joaquim Goes of Lamont Doherty Research Observatory on a project to reduce toxic algae in the pond in Morningside Park. Rebecca Naegele and the Design Center team have custom-fabricated mesh bags to facilitate the testing of remediation methods developed by Goes.

# NET ZERO

Barnard College has made significant strides in reducing its greenhouse gas emissions from 2005 to 2023 across all three scopes. This year, we committed to Net Zero emissions by 2040.

- **Scope 1** emissions have seen a notable 19% reduction from 2005 levels.
- For **Scope 2** emissions, we secure 16% of our electricity from renewable New York State hydropower. For 100% of the remainder, since 2018 we have purchased Renewable Energy Credits (RECs) from wind sources. This has effectively eliminated Scope 2 emissions. We are committed to moving away from REC's as more local renewable energy becomes available.
- Barnard's **Scope 3** emissions have been estimated based on innovative studies conducted for 2015 and 2019. These analyses indicate a consistent average rate for Scope 3 emissions. Our Circular Campus initiatives are designed to address these typically hard to measure and hard to manage emissions.



## SCOPE 1

Direct greenhouse gas (GHG) emissions from sources that are controlled or owned by an organization, e.g., burning fuel for heating or cooling

## SCOPE 2

Indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling — for example, electricity for lights and computers

## SCOPE 3

Results of activities from assets not owned or controlled by the organization: travel, purchased goods, food, and waste



# CIRCULAR CAMPUS

Barnard College is a leader in establishing circularity strategies to reduce emissions , minimize waste, and build community resilience. The Circular Campus approach aims to fundamentally shift our campus consumption from a linear to a circular system.

In a linear system, resources are extracted, used briefly, and discarded. In contrast, a circular system promotes sustainability by repairing and reusing products and materials. At the end of a product's lifecycle, it is broken down into components that can be recycled or repurposed into new products.

Barnard is fostering a holistic approach to sustainability and circularity that can be applied at all levels, from individual choices to institutional policies.

Barnard highlights circularity on campus with the following initiatives:

The annual Green Sale and Give and Go Green Programs provide opportunities for students and staff to donate, exchange, and purchase gently used items, extending the life cycle of products and diverting them from landfills.

The upcoming Rheaply Reboot in Summer 2024 will further encourage the campus community to exchange and repurpose items from the major Altschul building renovation through a digital platform.

These efforts, and the many more examples on the following pages, both demonstrate Barnard's commitment to circularity and empower campus members to contribute to a more sustainable future through everyday actions.

# CIRCULAR CAMPUS: FOOD AND DINING

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Barnard College and Chartwells (Barnard Dining), the College's food service provider, have partnered to support sustainable food systems on campus and minimize the impacts of dining service operations. In Spring 2024, Barnard Dining introduced the Drip, Sip, Repeat program at Liz's Cafe where students may bring their reusable mugs for drip coffee at a discounted price.

Barnard Dining introduced an annual farmer's market event called Joyful where students purchased local produce for the equivalent of one meal swipe. This event provided an opportunity to teach students about healthy and sustainable local produce. Indoor hydroponic farming arrived in Hewitt Dining Hall in Fall 2023 with the introduction of the Farmshelf program. Fresh herbs and greens grown on-site are used in daily meals served on campus.

**100%**

of milk and yogurt served  
is certified free of  
rBGH/rBST

**100%**

of turkey served is without  
the routine use of human  
antibiotics

**90%**

of seafood served is from  
sustainable sources

**80%**

of coffee served is Fair  
Trade Certified

## Food and Agriculture Focused Student Programs

During the fall break of 2023, we held The Sustainable Farm and Wellness Retreat which took place at Closter Farm, NJ. Building on the success of the previous year's program, this retreat offered a comprehensive experience that blended educational activities, hands-on farming, and wellness practices. The program expanded this year to include more students and a cooking session using farm-fresh produce.

During the spring, we organized a field trip to Stone Barns Center for Food and Agriculture in Tarrytown, NY. The field trip included a tour of the historic grounds, farming operations, and a farm to table lunch experience.



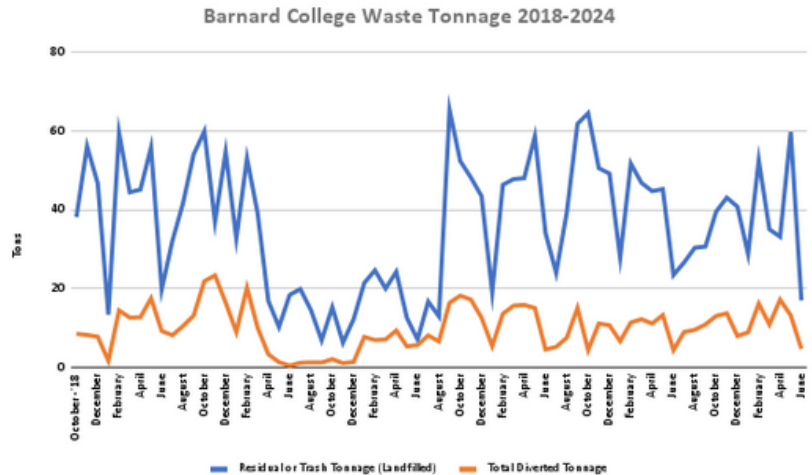
Together, these programs highlighted the importance of connecting with the land, understanding the journey of food from farm to table, and integrating wellness into agricultural practices.

# CIRCULAR CAMPUS: WASTE

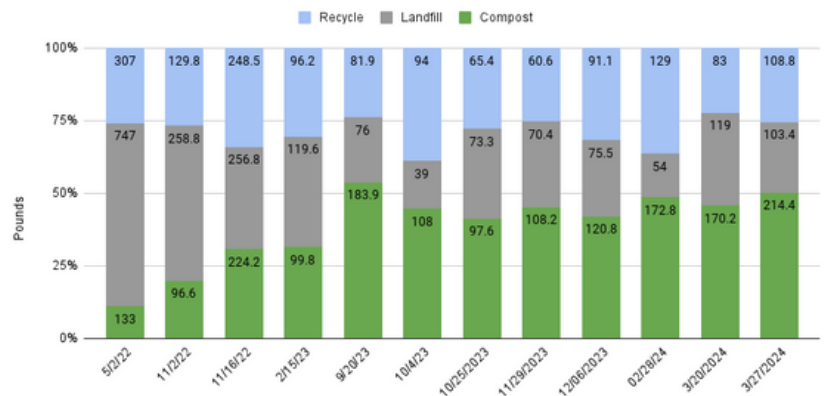
Since 2019, we have increased our diversion rate from 14% in 2019 to 24% in FY24. Waste sent to landfills has decreased from an average of 43 tons per month in 2019 to 37 tons per month in 2024.

We expanded our composting program. Coordinating with the offices of both Facilities and Events Management, composting receptacles were placed in event spaces and information sent to all event organizers to encourage composting at events and further reduce waste.

Since an initial dining hall waste audit conducted in May 2022, Barnard Sustainability has led a concerted effort, in collaboration with Barnard Dining, to increase waste education, market waste reduction ideas strategically, redesign the waste area in Hewitt and fix the dishwashing system.



Lunch Audit Comparisons



This bar graph shows the total back of house and front of house lunch waste for each audit conducted in Hewitt dining hall. Landfill waste was significantly reduced and compost increased.

Barnard Dining expanded composting efforts to include composting the coffee grinds at Liz’s Place. They continue to use their Waste Not 2.0 program to keep track of their back-of-house composting efforts, as shown in the photo.

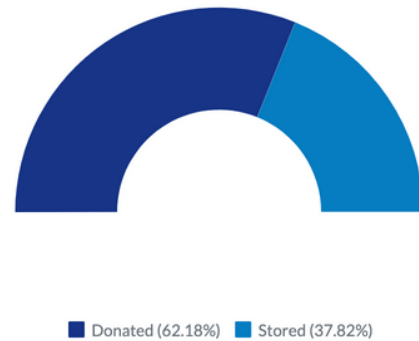
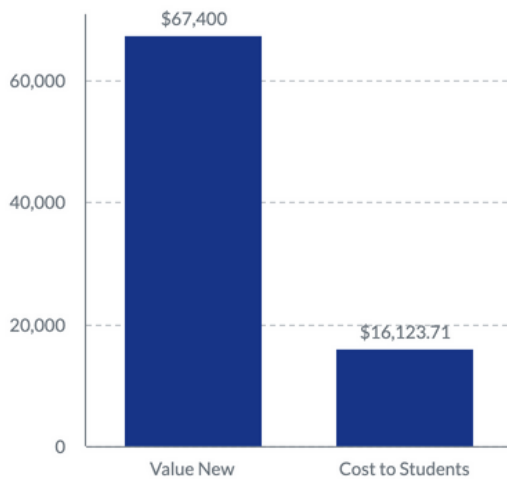
Student-run Food Recovery Network and the Office of Student Engagement partnered with Barnard Dining to donate leftovers from Big Sub, a beloved annual event serving over 700 feet of sandwiches to Barnard students, to the local community.



# CIRCULAR CAMPUS: REUSE AND SUSTAINABLE PURCHASING

In FY23, Barnard College grew several initiatives aimed at promoting reuse and sustainable purchasing practices, recognizing that these activities comprise 30% of our scope 3 emissions.

- The fall Green Sale was the biggest yet, with 9,382 pounds of goods valued at \$67,400 sold at a 76% discount. The Access Barnard pre-sale event further promoted affordability for our students.
- The college rolled out a Rheaply Reboot initiative in summer 2024, enhancing internal reuse of furniture assets through a dedicated platform.
- In 2023 we submitted our electronic purchasing data to the Global Electronics Council and qualified for the EPEAT Purchaser Award.



24,807 pounds of student “waste” diverted from landfills at Give and Go Green in FY23. 9,382 pounds of goods returned for Green Sale in FY24



# 1500

STUDENTS SHOPPED THE GREEN SALE  
IN FALL 2023

# CIRCULAR CAMPUS: DESIGN, CONSTRUCTION, AND DECONSTRUCTION

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As we prepare to close Altschul Hall, our priority is responsibly relocating all furniture and fixtures, collaborating closely with Rheaply and Capital Projects to find new campus homes for as much as possible. The facilities team will salvage fixtures to maximize resources. Any unrehomed items will be distributed through Rheaply to over 40 neighboring organizations, promoting sustainability and community engagement. Nearly 500 requests have been received, underscoring demand and ensuring continued use.

After the building is empty, our focus shifts to ensuring the R&D Science Center's construction is low carbon. Emissions associated with construction, called embodied carbon emissions, are a significant consideration. Early studies suggest over 80% of Altschul Hall's structure can be reused, aiming for over 50% reduction in embodied carbon emissions. Salvaged materials from Altschul Hall will be integrated into the R&D Science Center's interior design, further enhancing sustainability efforts and minimizing our carbon footprint.



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**50%**

**REDUCTION IN EMBODIED  
CARBON (FROM NEW  
CONSTRUCTION)**

**80%**

**STRUCTURAL REUSE OF  
ALTSCHUL HALL**

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# CIRCULAR CAMPUS: GROUNDS

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## Native Rain Garden Update

*Designed by Nora Gmelch '23 and Silvia Giordano '25*

Last year, Nora Gmelch '23 and Silvia Giordano '25 designed and installed a native rain garden near Futter Field. The area continues to thrive alongside the pollinator and native species planted across campus by Head Groundskeeper Keith Gabora. Barnard grounds has been actively expanding its growing spaces to support local ecosystems and promote biodiversity.



## Edible Planter 2024 Update

We introduced edible planters around campus in the summer of 2022 to increase greenery and provide students with access to healthy food. This year, we continue to maintain 11 planters located in the Quad and on the Diana Cafe outdoor patio. These planters are flourishing with a variety of cherry and grape tomatoes, peppers, strawberries and herbs.





# COMMUNITY & ENGAGEMENT

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In October 2023, STEAM in the City, Barnard Garden Club, and Sustainability organized a planting activity to engage public school 6th graders in a hands-on agricultural activity. The students participated in planting fall bulbs, seeding root vegetables, and touring our campus green spaces. The experiences aimed to create a deeper understanding of gardening and sustainability practices among the students.



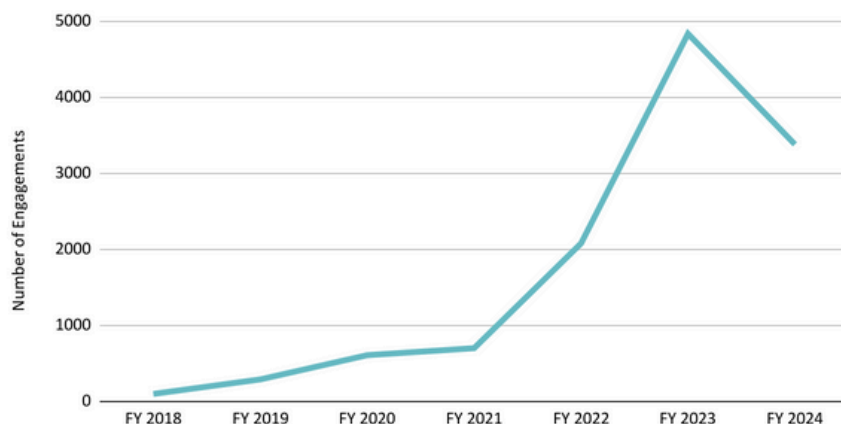
In April 2024, the Opportunity Programs Spring Retreat to Black Rock Forest brought together 29 students and nine staff members from Sustainability and Access Barnard. The retreat featured activities such as creating a communal dinner, enjoying a campfire, participating in group reflections, hiking and wellness activities centered around cooking. Designed to foster community and connection, the trip offered OP students a unique opportunity to bond in a natural setting away from the busy city.



Due to unrelated campus closures and changes to certain College-wide programming, like NSOP and Climate Week, we were not able to offer as many touch points as in the 2022-23 academic year, but the quality of our engagement remained high

## Community Engagement

FY 2018 - FY 2024



**3285%**  
INCREASE IN  
ENGAGEMENT  
SINCE 2018

# SUSTAINABILITY LEADERSHIP 2023-24

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**Sandra Goldmark**

Professor of Professional Practice  
& Director of Campus  
Sustainability and Climate Action,  
Barnard College

Senior Assistant Dean for  
Interdisciplinary Engagement,  
Columbia Climate School



**Leslie Raucher**

Associate Director of Campus  
Sustainability and Climate Action  
Co chair, Barnard Staff Advisory  
Council



**Jazmine Garcia**

Food Sustainability  
Coordinator, Campus  
Sustainability and Climate  
Action

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## CLIMATE ACTION COMMITTEE

**Deby Finkelstein**, Director of Auxiliary Services

**Daniella Donzelli Scorza '23**, Student Government Representative for Sustainable Initiatives

**Delaney Michaelson '24**, Student Government Representative for Sustainable Initiatives

**Jazmine Garcia**, Sustainability Coordinator, Campus Sustainability and Climate Action

**Julian Jones\***, Project Manager, Capital Projects

**Katelyn Dutton '14**, Director of Family Engagement & Special Assistant to the President

**Kathryn Gerlach**, Director of Media Relations

**Leslie Raucher**, Associate Director, Campus Sustainability and Climate Action

**Lino Machado**, Director of Custodial Services

**María S. Rivera Maulucci\***, Professor of Education

**Mary Joan Murphy**, Executive Director of Student Health and Wellness Programs

**Mary Rocco**, Director, Engaged Scholarship and Community Engagement

**Ralph Ghoche**, Assistant Professor of Architecture

**Sandra Goldmark**, Chair, Professor of Professional Practice in Theatre, Director of Campus  
Sustainability and Climate Action

**Terryanne Maenza Gmelch\***, Senior Lecturer in Environmental Science

**William Sharpe**, Professor of English

**\*Sustainability Taskforce Member**

## 2023 SUSTAINABILITY TASKFORCE

**Angie Tse**, Director of Laboratory Building Operations

**Daniel Davis**, Executive Director of Facilities Operations

**David Malterre**, IT PMO Director at BCIT

**Dawn Williams**, Senior Associate Director at Development and Alumnae Relations

**Kadambari Baxi**, Professor of Professional Practice in Architecture

**Paige West**, Professor of Anthropology, Director of the Transdisciplinary Research Lab,  
CU Climate School

**Patrick Dillon**, Junior Human Resources Partner

**Preetica Pooni**, Writer and Editor for Barnard Communications

**Sarah Gillman**, Senior Vice President for Strategic Finance and Operations and  
Treasurer