



Sustainability Office Updates

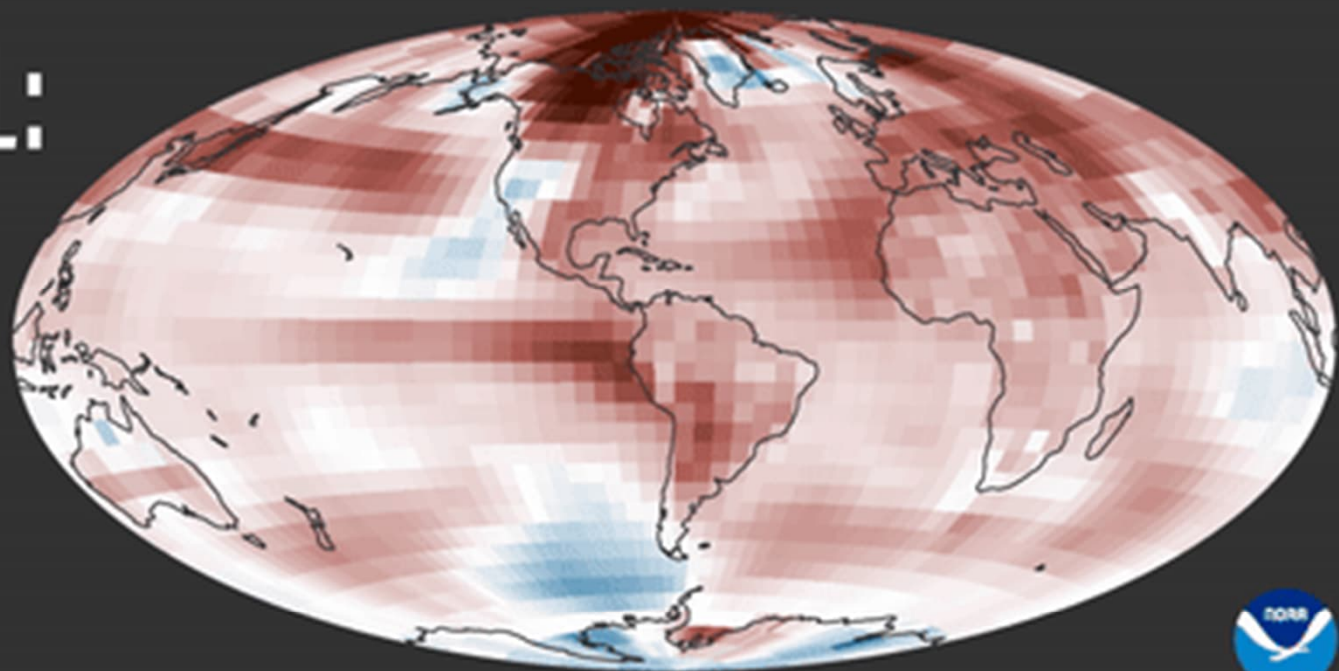
Winter 2024

YORK 

Agenda for Today

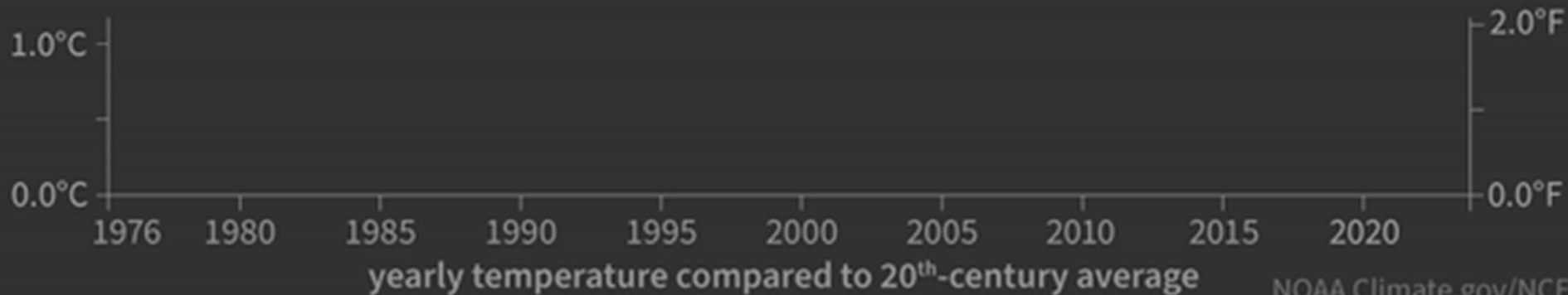
- 1 Answering the call
- 2 Sustainability at York - Governance, Academic and Operational Priorities & Activities
- 3 Sustainability Strategy Renewal Update
- 4 Transitioning to new Sustainability Framework
- 5 Sustainability Innovation Fund

IT'S OFFICIAL:



Difference from 1991-2020 average (°F)

-5 0 5

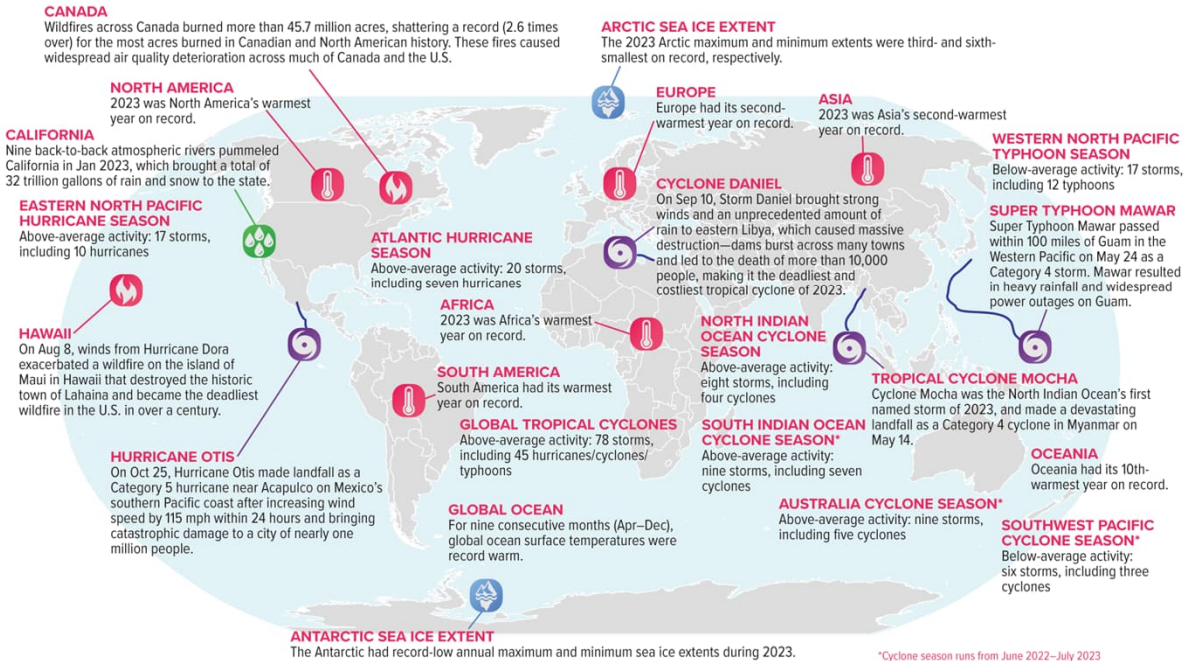


NOAA Climate.gov/NCEI

Selected Significant Climate Anomalies and Events: Annual 2023



GLOBAL AVERAGE TEMPERATURE
The Jan–Dec 2023 average global surface temperature was the highest since global records began in 1850.



Please note: Material provided in this map was compiled from NOAA's State of the Climate Reports. For more information please visit: <https://www.nccl.noaa.gov/access/monitoring/monthly-report/global/>

“The consequences are clear, and they are tragic: children swept away by monsoon rains; families running from the flames; workers collapsing in scorching heat.”

”

– Secretary General, UN



Sustainability at York -
Governance, Academic and
Operational Priorities

York Sustainability Recognition



Top 40 for advancing
UN SDGs
THE Impact Ranking



Canada's Greenest
Employer
11th Consecutive Year!



Climbed 100 spots in QS
Sustainability ranking
118th Overall, 16th in Canada



AASHE STARS –
Going for Gold!
Currently Silver (2016)

Sustainability Governance Priorities



Sustainability Policy

A new policy was approved by the Board of Governors Summer 2023



Sustainability Strategy

Community consultation process underway to inform the renewal of the strategy



Sustainability Framework

A new action-oriented framework with a steering committee, taskforce and working groups



Sustainability Innovation Fund

\$1M funding for sustainability projects



Awareness, Engagement & Events

Community engagement and programs to inspire and empower action (ie. Training module, events & office certification)



Living Labs

Faculty, staff and students collaborate on projects to support operations, research and teaching



Whole-Institution Approach

Embed sustainability into all aspects of the University – operations, teaching and research

Sustainability Academic Priorities



York University Academic Plan 2020-2025 - Building a Better Future

Answering the Call: A University-Wide Challenge to Contribute to the UN Sustainable Development Goals



104 Courses with Sustainability Focus

38 (65%) departments have sustainability course offerings with 1,531 graduate and undergraduate courses that are sustainability-inclusive



Joint programs between faculties

Joint sustainability programs between Environment & Urban Change, Law, Science, Business, Education and Public Health



Organized Research Units

One Water, Micro mobility (MOVE), York Emergency Mitigation, Centre for Bee Ecology, Centre for Research in Earth and Space Science, City Institute, and more



Faculty Initiatives

Centre for Excellence in Responsible Business, SDGs in the classroom, CIFAL York – Unitar, Ecological Footprint Initiative, Los Nubes eco-campus, Sustainable Energy Initiative, C4-Capstone challenges, hackathons and more



Student Engagement

SDG Student Hub, WWF Certification, Student Clubs, Work Study students, Placement students

Sustainability Operational Priorities



Energy Management

Roadmap to Net Zero;
\$2M Funding for Energy Management
Information System



Food Services

Local purchasing, reducing waste,
composting, plant-based, Friendlier,
gluten free and cultural food diversity



Waste Management

Eliminating waste on campus and
moving towards a circular economy.



Sustainable Transportation

Public transportation network, including
two subway stations on campus, bike
share, carpool options and bike repair
stations



Procurement

Social Procurement – purchasing from local
and diverse equity seeking group
Sustainable Procurement – RFP Contracts.
Fair trade Campus designation



Green Building

7 LEED buildings on campus; 3 built to
TGS, developing building green
standards



Grounds & Maintenance

Naturalization, biodiversity and
ecosystem regeneration, Green Office,
event and classroom certification



Campus Fleet

Electrifying campus fleet

2023 Sustainability Policy

4. Policy

The President will:

4.1 Develop a University Sustainability Strategy with an aim to achieve Net-Zero on Scope 1 and 2 emissions at York University and to significantly reduce Scope 3 emissions before 2040; consistent with global best practices to foster positive ecological, social, and economic outcomes.

4.2 develop and maintain a framework to shape and drive sustainability initiatives across the University community in its operations, and build capacity and awareness across the York community, locally and globally.

4.3 develop and implement a process to track, measure, evaluate and report to the Board on progress toward achieving the goals established under the University Sustainability Strategy, including milestones and implementation plans underpinned by conservation, decarbonization and innovation, applied to Scope 1, 2, and 3 emissions.

5. Roles and Responsibilities




The President will be responsible for the implementation of this policy and has the authority to develop procedure to that effect, namely regarding but not limited to:

5.1 the establishment of sustainability standards for transportation, energy, procurement, waste management, biodiversity protection, land use planning and capital construction.

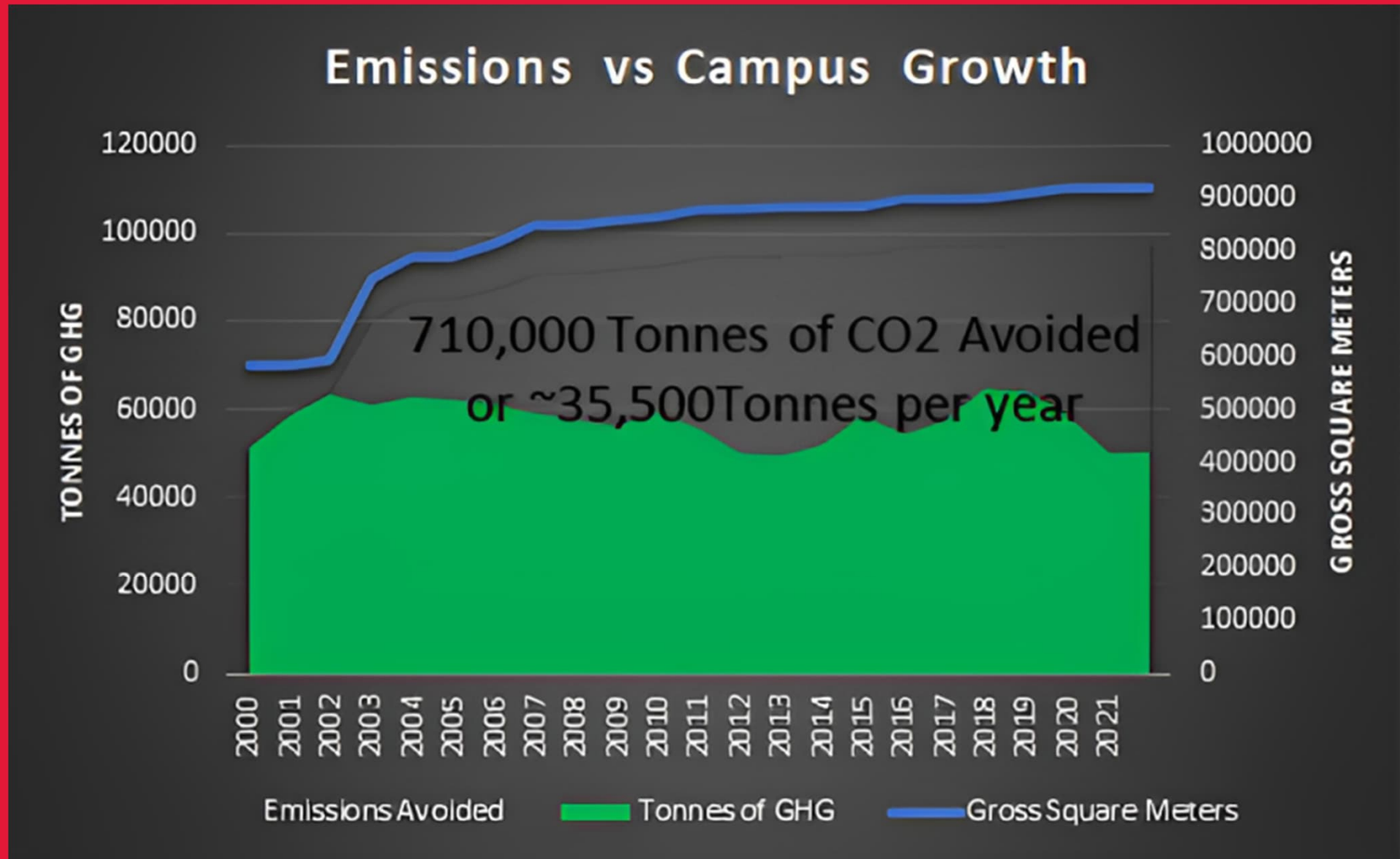
5.2 establish mechanisms to implement the University Sustainability Strategy.

5.3 define processes through which all divisions and units must track, measure, evaluate and report to the President on their progress toward achieving the goals established under the University Sustainability Strategy.

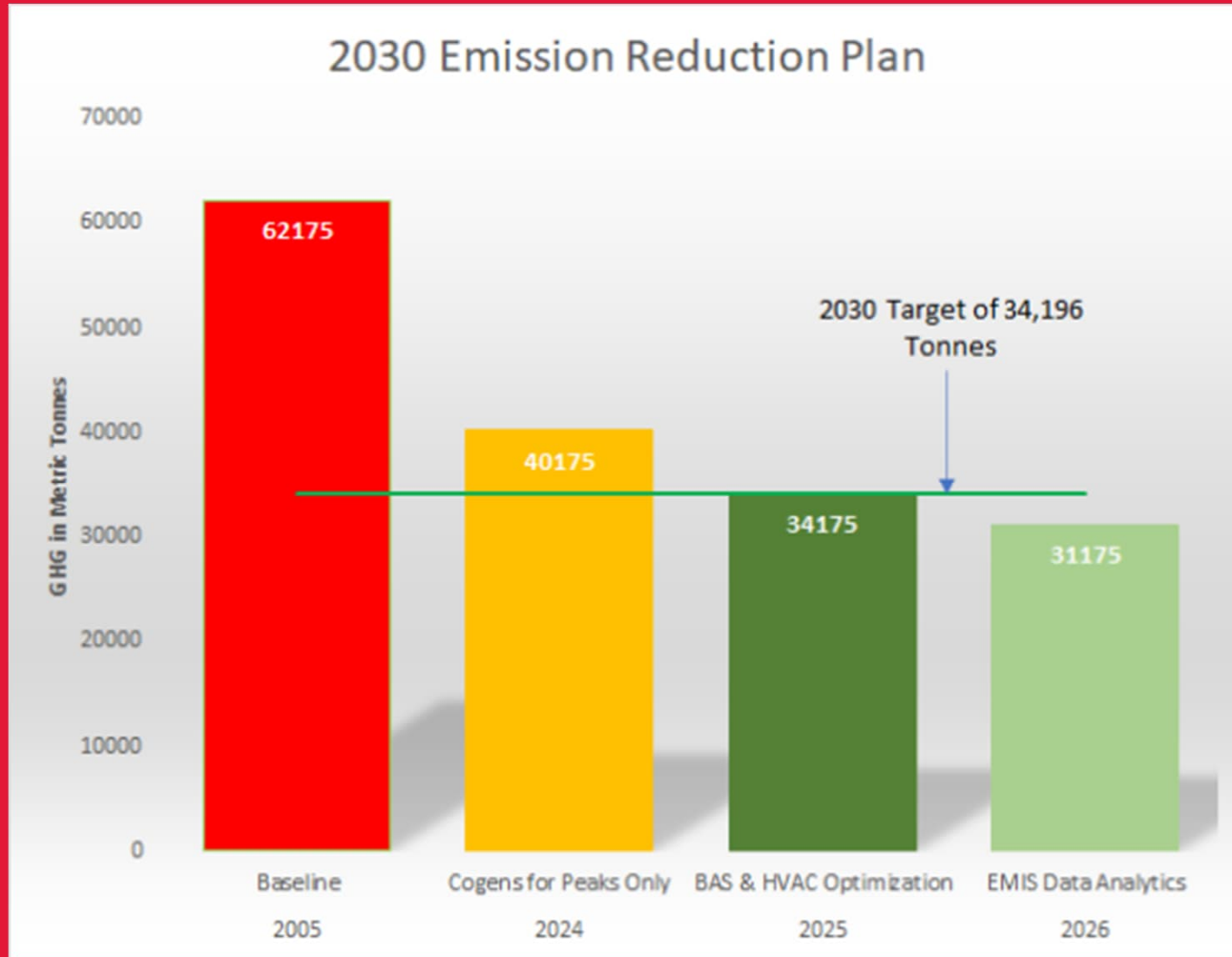
Defining Emissions by Scope – (CAUBO)

				
SCOPE 1 Emissions (Direct)	SCOPE 2 Emissions (Indirect)	SCOPE 3 Emissions (Supplemental)		
Emissions from sources that are owned or controlled by the institution	Emissions generated in the production of electricity, heat or steam consumed by the institution	Emissions from sources not owned or directly controlled by the institution that are a consequence of the activities of the institution		
Institution	Upstream Activities	Upstream Activities	Upstream & Downstream Activities	Downstream Activities
Facilities (on-site electricity and combustion equipment)	Purchased electricity, steam, heating and cooling for own use	Purchased goods, services and capital goods	Leased assets	Institution investments
Fleet vehicles		Fuel- and energy related activities		
		Business travel		
		Staff & student commuting		
		Waste generated in operations		

Historic Scope 1 & 2 Emissions



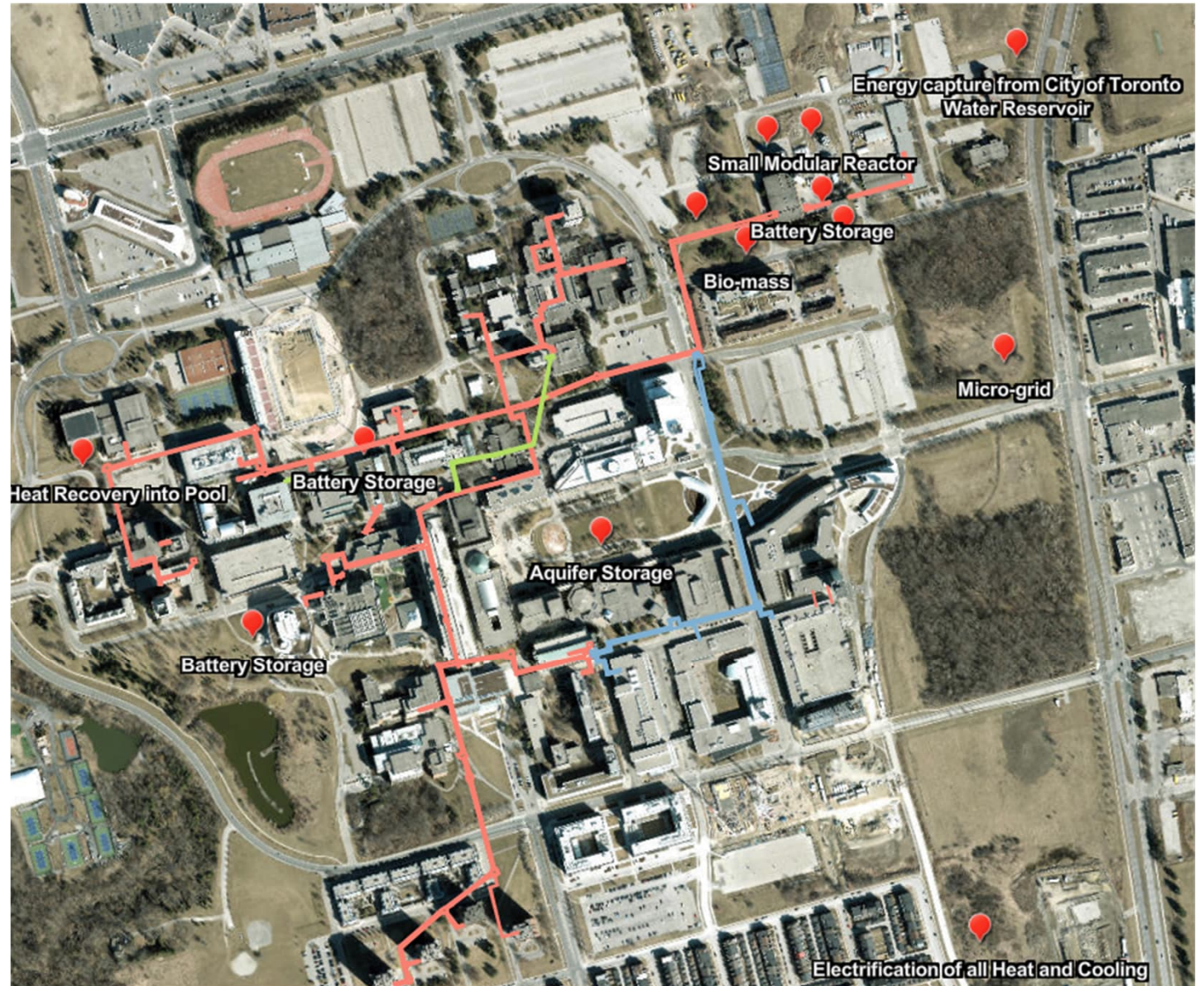
Achieving Paris Target - 45% by 2030 (Scope 1 & 2)



- 80% of the way to our 2030 goal already by simply changing our utility operations
- \$0 investment
- net \$3.0M energy saving in future years
- Co-generation Operations Shift (2024/2025) 22,000 tonnes
- Building Automation, HVAC Optimization & Recommissioning (2025/2026) 6,000 tonnes
- EMIS, Data Integration, Data Analytics (2026/2027) 3,000 tonnes

Beyond 2030 to Net Zero - Potential Initiatives

- Right size our campuses
- Geothermal & High Temperature Heat Pumps
- Thermal Energy Storage – Aquifers, Tanks, Reservoir
- Sewer Heat Recovery
- Tunnel Heat Recovery
- Small Modular Reactors
- Electrification
- Renewable Fuels – Hydrogen, Renewable Natural Gas, BioMass
- Solar
- Battery Storage
- Introduction of technology not yet developed today



Proposed Glendon Campus Noventa sewage heat recovery

GHG Reduction

2,300 tCO₂e /yr.

Less GHG emissions
vs conventional
system

92% Reduction



Energy Reduction

11,500 MWh_e

Less energy
consumption vs
conventional system

78% Reduction



Resiliency

Futureproofing

Retiring \$19M in
Deferred Maintenance

Generating Annual
Operational Cost Savings



Reliability

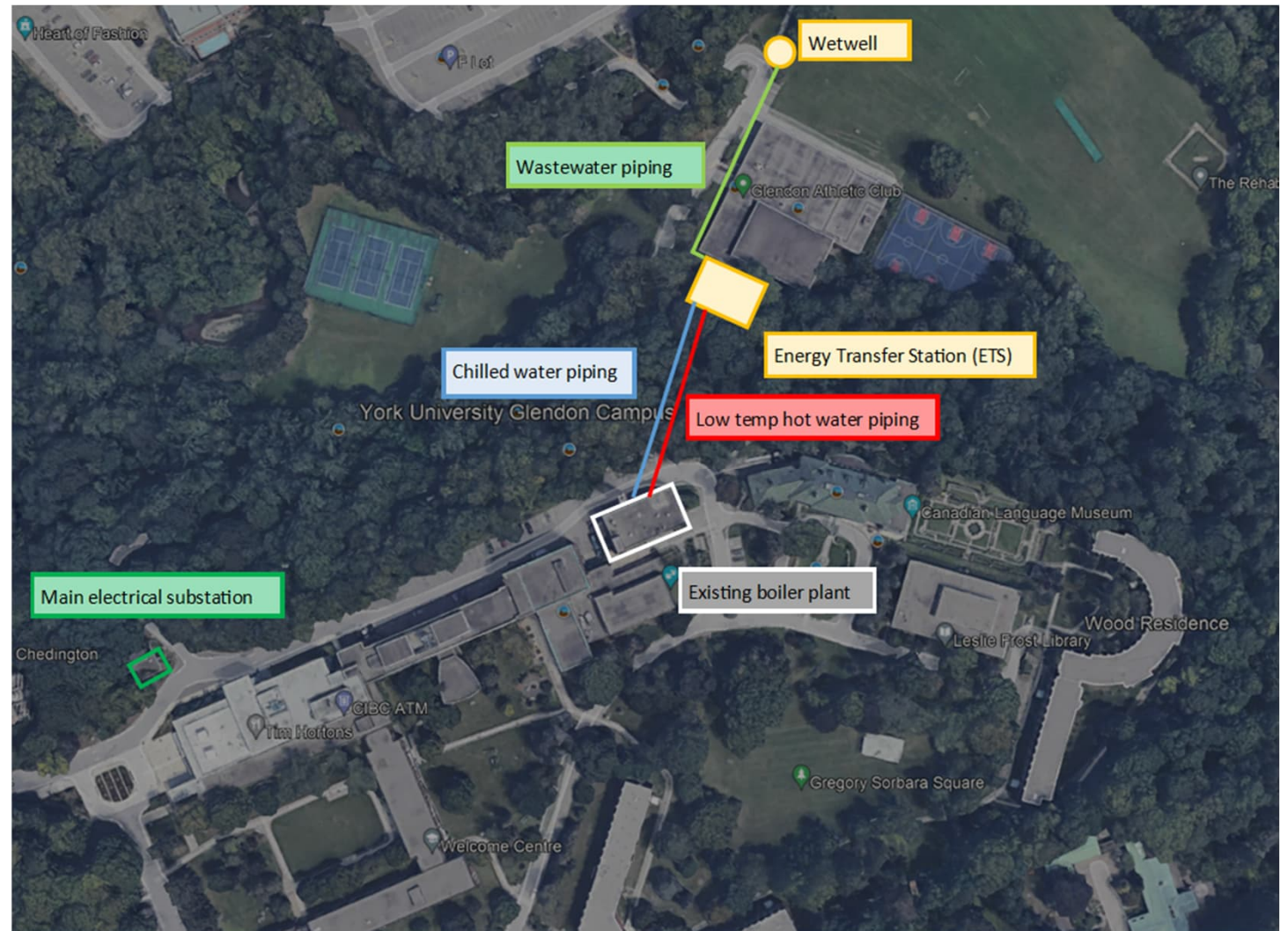
Back-Up Generator

Full electrical back-
up for the entire
campus



Proposed Glendon Campus Noventa sewage heat recovery footprint

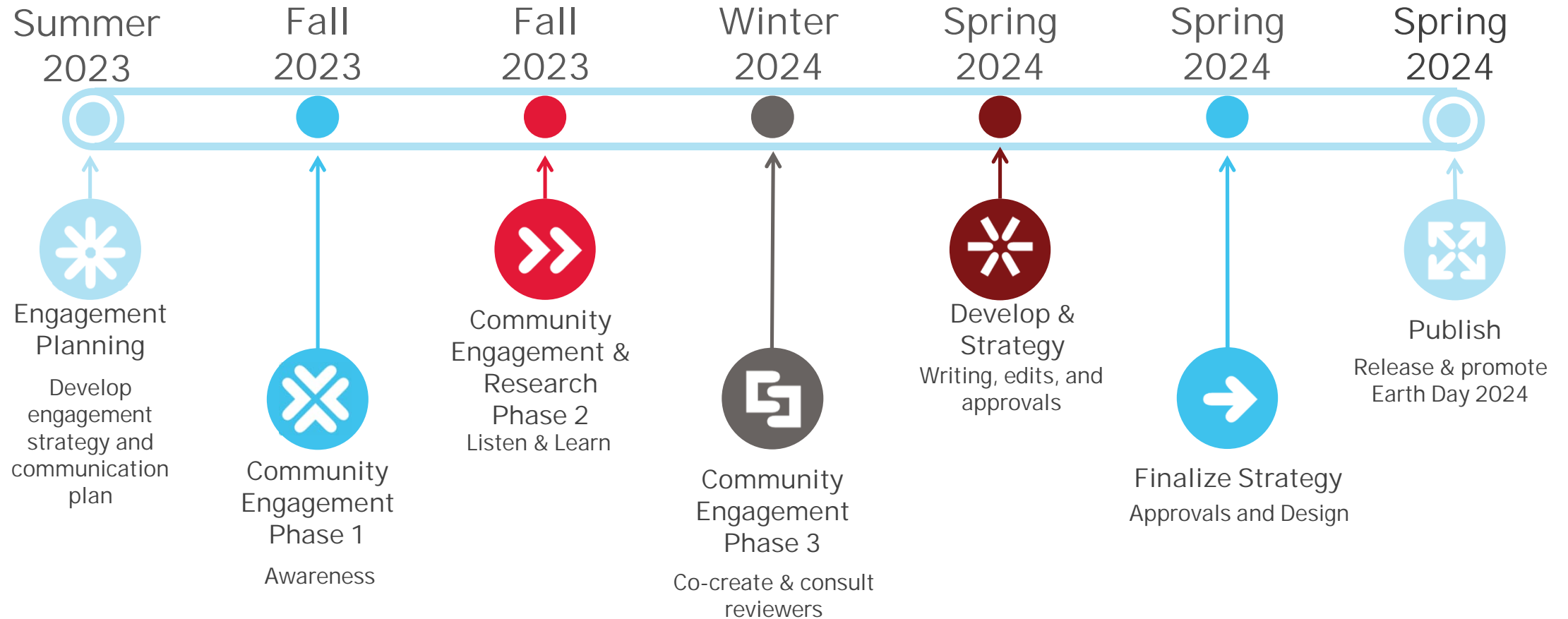
- Wetwell
 - Wetwell located beside soccer field, adjacent to trunk sewer running through Sunnybrook ravine.
 - Working through approvals process with TRCA
- Energy Transfer Station (ETS)
 - Located to the south of the Glendon Athletics Club
- Distribution Piping
 - New hot and chilled water distribution piping from ETS to existing boiler plant





Sustainability Strategy Renewal, Engagement Process and Draft

Sustainability Strategy - Community Engagement Proposed Timelines



Engagement Process



Planning

Develop a robust pan-university engagement & communication plan in consultation with PSC and senior staff

Engagement Goals: Cultivate an atmosphere of trust exploration, innovation, fun and optimism

Build a comprehensive snapshot of sustainability at York and develop a narrative

Community Engagement Phase 1 & 2
Build Awareness & Listen

Build awareness of sustainability at York and SDGs

Presentations
Faculty Councils
Workshop,
Town Hall,
Survey,
MachForm Feedback

Peer to peer engagement
Tabling,
Campus interception
Gamification (fun)

Community Engagement
Co-create Phase 3

With advisory body and working groups, organize core themes and preliminary action items from Phase 1&2

Report back core themes, respond to questions and outline action items

Here is what we heard?
What needs to be in the strategy?
What needs to be prioritized?

Indigenous circle, ASCP
Glendon/Keele engagement

Edit, finalize, approve and publish

Final round of presentations and review

External reviewers

Seek approvals

Release and roll out



Sustainability Strategy 2030 update - FOR DISCUSSION

2017 Architecture & 2024 Proposed Architecture

2017

Vision

Pillars
(People, Knowledge, Place)

Strategic Goals

2024 Proposed

Call to Action /Vision

Guiding Principles

Pillars

Strategic Objectives

Strategic Actions

Alignment of Guiding Principles with UAP and existing Strategies.

YORK'S VALUES

- › Excellence
- › Progressive
- › Sustainable
- › Justice/Equity
- › Diversity/Inclusion

UAP – ANSWERING THE CALL

- Campus – Local - Global
- › Living Well together
 - › 21st century learning
 - › Knowledge for the Future
 - › From access to success
 - › Advancing Global Engagement
 - › Working in partnership
 - › SDGs
- * Climate and environment (Key priority)

RELEVANT INSTITUTIONAL STRATEGIES/Frameworks

- › DEDI (DoS/Wellness)
- › Wellbeing (DoS/SRP)
- › Create our future (DoS)
- › Leadership (DEDI)
- › Reconciliation (DEDI)
- › Indigenous Rights (DEDI)
- › Decolonization (DEDI)
- › Diversity/Inclusion (DEDI/SRP/GES)
- › Rights of Planet (DEDI)
- › Campus Climate (DEDI)
- › Intersectionality (DEDI)
- › Innovation (Wellness/SRP/GES)
- › Collaboration (Wellness)
- › Healthy Lives & Communities (SRP)
- › Global Challenges (SRP/GES)
- › Social Justice (DEDI/SRP)
- › Climate Action (SRP)
- › Partnership (GES)
- › Impact (GES)
- › Experiential learning (GES/DoS)
- › Interdivisional (SRP)

BEST PRACTICES

- › Urgency
- › Inclusive/diversity
- › Interdisciplinary
- › Impact
- › Ambitious
- › Circularity
- › Just transition
- › Healthy environment
- › Empowering
- › Indigenous knowledge
- › Our connection to nature
- › Holistic
- › Long-term
- › Decarbonization
- › Transformative
- › Regenerative

POSSIBLE GUIDING PRINCIPLES

- › Leadership – lighthouse
- › Empowering
- › Innovation - transformative
- › Intergenerational wellbeing
 - planet/Youth
- › Interconnected - interdisciplinary
- › Indigenous Knowledge
- › Local and Global
- › Partnerships
- › *Data informed*
- › *Prioritize hierarchy - Avoid/Shift/Improve (Reduce, Reuse, repair, recycle)*
- › Social & ecological justice/equity
- › Ecological integrity/regenerative
- › Reshaping Relations with nature
- › Wellness
- › DEDI
- › Community engagement
- › Digitalization/AI
- › Democracy & Peace
- › Accountability

DRAFT Guiding Principles

- Cultivate local and global leadership and citizenship by demonstrating a sense of urgency and acting as a lighthouse to inspire transformative action, while advancing practical and achievable solutions.
- Advance innovation, forge strong partnerships and deepen community engagement, to amplify the positive impact, in all our actions.
- Respond to the interconnectedness of global challenges by embedding interdisciplinary, integrated, avoid-shift-improve hierarchy, degrowth, and circularity as principles of program design.
- Ensure accountability as a core component of planning and decision-making, by maintaining transparent and regular reporting, and seeking measurable outcomes to demonstrate action.
- Reshape our relations with nature and respect ecological integrity by ensuring actions aspire to be regenerative and biocentric.
- Embed resilience into planning and desired outcomes and ensure actions can adapt to changes in local and global conditions.
- Centre local Indigenous Knowledge Systems and worldviews into planning and actions *and recognize these distinct relationships with the land and environment*.
- Respect and acknowledge the interdependence of the community of life, intergenerational social and ecological justice, rights of the planet *and honouring our relations*.
- Meaningful inclusion and amplification of diverse, under-represented, and cross-cultural perspectives and empower marginalized communities.

DRAFT Strategic Objectives 1/2

Place

- Net zero emissions campus by 2040 for Scope 1 & 2 emissions and develop targets for scope 3 emissions wherever feasible
- Facilities as a model of sustainable design with all new buildings and major renovations to build to net zero and where possible net positive.
- Aspire to be a zero-waste campus upholding the principles of circularity and the waste hierarchy (3+Rs).
- Reduced Water use on campus and with a focus on reducing per person and campus wide consumption.
- Optimize stormwater repurposing on-site and minimize stormwater runoff.
- Increase the proportion of people using low emissions options for commuting.
- Campuses with a safe and efficient transportation network, following a "Vision Zero" road safety approach.
- Sustainability embedded into business travel that minimizes emissions and maximizes institutional outcomes.
- Decrease the overall emissions and mitigate the ecological impact of food consumed on campus.
- As stewards, we will support the regeneration of local ecosystems and biodiversity to foster ecological, healthy, and inviting campuses
- Integrate sustainability in long term planning and day to day operations, and incorporating into financial plans, Integrated Resource Plans (IRP), and investment plans.
- Increase proportion of goods and services procured that meet sustainable procurement goals, both environmental and social considerations within our campuses and along the value chains.
- Achieve AASHE Platinum

DRAFT Strategic Objectives 2/2

Knowledge

- Promote program- and course- level learning objectives and outcomes that identify and articulate global sustainability challenges and solutions.
- Faculty, staff and students actively engage in public discourse and experiential learning on global and local environmental issues consistent with the University Academic Plan.
- York builds an international reputation for sustainability in our teaching and in applied leading edge research that attracts students and partnerships, with public and private partners.
- Establish campuses as Living Labs , reduce barriers to projects and research activities on campus and increase participation in classroom-based exercises.

People

- Demonstrate and foster a culture of sustainability and stewardship across all community members.
- Sustainability as an established and visible core value of the University.
- Support initiatives that address food insecurity and food justice on campus and in our community.
- A holistic approach that includes social sustainability, embedding York as an anchor institution in our local and contribute to global action through the SDGs.
- Include the Indigenous Community in sustainability planning and action and ensure that the perception and experience of indigenous community members are reflected in the classroom, on campus and in university life (from the Indigenous Framework).
- Enhance the physical environment to be more inclusive, accessible, and equitable where everyone has the potential to feel a sense of belonging and that they are respected (from DEDI strategy).

DRAFT Strategic Action 1/3

Place

1. Maximize efficiency – Develop space utilization strategies that maximize efficiency in the use of, and heating and cooling of buildings on campus.
2. Utility decarbonization – Develop a strategy to decarbonize central utilities on all campuses.
3. Building and major renovations standard towards net positive – Develop a standard for major renovations and new building construction that are net zero or better.
4. Fleet decarbonization policy – Develop an institution wide strategy to right size and decarbonize fleet vehicles.
5. Corporate travel policy – Develop an institution wide strategy to address the emissions from corporate travel.
6. Road safety - Develop micro-mobility, active transportation, and road safety plans for York campuses.
7. Commuting decarbonization plan. Develop plans to encourage the use of public transit and low carbon forms of commuting.
8. Enhance purchasing, policies and procedures to include environmental sustainability, along-side existing social considerations, and implement for all purchasing categories, and as part of this work, set targets and report back on progress.
9. Develop water and stormwater management plan that optimizes efficiency, and repurposing onsite and minimizes stormwater runoff.
10. Develop a waste reduction plan that focuses on waste hierarchy and circularity.
11. Develop and implement Campus-wide Biodiversity Regeneration Plans – ensuring York facilities, campuses and operations are ecologically regenerative and serve as part of the community wide network of habitat for species and an inviting and positive space.
12. Maintain an investment policy that addresses inherent risk of climate change, actively promotes transition to low carbon economy and follows the global best practices for ESG approaches.

DRAFT Strategic Actions 2/3

Knowledge

13. Develop strategies that incorporate sustainability into students' growth and development.
14. Work with academic leadership on assessing the presence of sustainability objectives and outcomes into program review processes.
15. Support programs in reflecting on the ways the objectives of their program align with the sustainability during the Cyclical Review Process, including opportunities for experiential learning.
16. Support programs in developing sustainability focused objectives and outcomes by creating a resource bank that demonstrates the ways global sustainability challenges, responses, and solutions can be incorporated into program and course curriculum.
17. Regularly assess student literacy of sustainability and the SDGs
18. Develop and maintain support mechanisms for innovative campus-based projects from faculty, staff, and students.
19. Develop a framework for removing barriers to implementing Living Lab project on campus and in the local community, and support classroom-based living lab learning experiences.
20. Support the advancement of research in sustainability through support for grant applications and collaborations between faculties, researchers, and outside partners.

DRAFT Strategic Actions 3/3

People

20. Implement the Sustainability Framework and report annually on progress in advancing the sustainability strategy.
21. Embedding sustainability in job descriptions and Institutional Resource Plans.
22. Maintain inventory for scope 1,2 & 3 emissions inventory and report annually.
23. Implement strategies to ensure low carbon, sustainable, local, and nutritious food is accessible and develop metrics to track progress.
24. Increase staff, faculty, students, and alumni engagement to promote awareness and action on sustainability issues.
25. Increase community engagement and storytelling specific to sustainability.
26. Develop strategies for strengthening arts as a tool for social and environmental transformation.
27. Establish opportunities for youth leadership and empowerment in sustainability initiatives.
28. Anchor Institution – Maintain and strengthen the Anchor York U Framework

“

DRAFT STRATEGIC ACTIONS PLACEHOLDER

”



SUSTAINABILITY FRAMEWORK
& PATH FORWARD

Transition to action-oriented Sustainability Framework

Level 1 – Working groups

- › Action Plans
- › Major initiatives
- › Advance research, align operations, coordinate initiatives

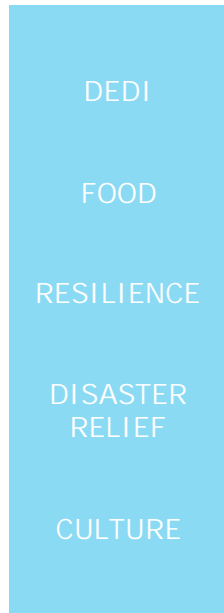
Level 2 – Taskforce

- › Vision/Implement/Shape institution-wide plan
- › Make recommendations on new policy and resources
- › Award Innovation fund

Level 3 – Steering Committee

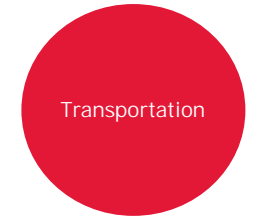
- › Lead long-term sustainability vision
- › Oversight
- › Resource approval

cross cutting



Working Groups

Working groups will be composed of community members whose expertise and responsibilities are needed to execute the projects. Membership might be composed of colleagues on a major research project and/or involve staff from one or more offices depending on the scope of the project.



If you are interested in participating in any of the working groups, please let us know.
Email: sustainability@yorku.ca

Sustainability Innovation Fund – Proposed Recommendations

	Project Lead	Affiliation	Faculty / Dpt	Project Title	Total Funding Request \$	Recommended Funding	Notes
1	Arjun Kaura	Student	C4 Capstone	EcoLearning - Learning for Sustainable Future	\$240	\$240	
2	Pauline Lexanova	Student	C4 Capstone	Project Organically Rooted (seeds project)	\$145	\$145	
3	Megan Medeiros	Student	AMPD	Dance “The Nature of Exchange Through Movement”	\$2,380	\$2,380	
4	John Simoulidis	Faculty	LA&PS	York University Composting Centre - Continuation	\$25,000	\$25,000	*Conditional: must include Glendon component; last funding need to figure out long term solution
5	Phyllis Novak	Faculty	EUC	Maloca Earthworks - CommunALL Growing Project (Maloca Gardens)	\$25,000	\$25,000	*Conditional: must include Glendon component & space approval
6	Tim Hampton	Staff /Faculty	EUC / Lassonde	Determining the carbon reduction impact of large battery electricity storage integrated with renewable energy sources at York University	\$10,000	\$10,000	*Conditional: Supported by Energy Management; last funding from SIF
7	Pirathayini Srikantha	Faculty	Lassonde	Quantifying and Mitigating Power Quality Issues Stemming from the Electrification of the Heating and Cooling Systems at York University.	\$10,000	\$10,000	*Supported by Energy Management
8	Vladimir Kanic	Student	AMPD	Algae Farming: A Creative Approach to Carbon Sequestration and Climate Resilience via Bioart	\$19,500	\$10,000	*Conditional: Facilities/Space & Faculty sponsor

Stay Connected with the Office of Sustainability



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