Environmental Sustainability Report

UNIVERSITY OF WATERLOO

SUMMARY

2019

RELEASED OCTOBER 2019

UNIVERSITY OF WATERLOO

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Prepared by the President's Advisory Committee on Environmental Sustainability

INTRODUCTION

Message From The President

Waterloo released our Environmental Sustainability Strategy two years ago, building off a long tradition of environmental action to establish key recommendations, initiatives and targets. The University of Waterloo has never shied away from doing things differently and if we are to meet and exceed our sustainability targets we must harness our innovative spirit and reach for more.

This Environmental Sustainability Report is a snapshot of the initiatives we've taken and the strides we've made in fostering a sustainable campus and community of students, faculty, and staff. We are holding ourselves accountable for being leaders and inspiring our country and its citizens to create a brighter future for generations to come.

This report and our activities reflect the full breadth of Waterloo's influence. Academics, Operations, Engagement, and Governance and Benchmarking are all vital in establishing a holistic approach for long-term success. We are a connected institution that looks to be an example in changing how we make our campus more sustainable, but also how we can educate and engage with our community.

In addition to the wealth of new knowledge created and disseminated by our scholars, we've made progress in many areas, from how we manage our waste to the number of sustainability related courses taught at Waterloo to how we empower students and employees to be involved. This journey to 2025 is a long one filled with successes and lessons to be learned, and we will continue to do this together.

Our University started in a strong position because of an institutional legacy to never settle and to avoid the idea that what was done in the past was the only way forward. This way of thinking is essential as we continue to take action on sustainability issues. We are not bound by the past in the search for progress. I hope you will continue this important journey with me as we advance our sustainability efforts today and in the future.

Thank you for taking the time to read this report and for everything you do to make our University and global community a more sustainable place.

I am pleased to present Waterloo's 2019 Environmental Sustainability Report, which tracks our actions and progress over the past year.

Sincerely,

FERIDUN HAMDULLAHPUR

PRESIDENT AND VICE-CHANCELLOR
UNIVERSITY OF WATERLOO

About this Report

Overview: This summary report highlights examples of progress towards each of the 27 objectives that were established in Waterloo's Environmental Sustainability Strategy. The report is divided into sections on Academics, Operations, and Engagement, and describes relevant projects and initiatives that have occurred at the University of Waterloo up to and including June 2019.

The report also includes key highlight statistics and an assessment of the status and momentum within each indicator, to give the community a snapshot of Waterloo's progress. As this is the second year of implementation, it should be understood that many objectives are only in the "Started" phase, and will move towards completion over time.

For full data and details on each objective and indicator, consult the Data and Details report, available at uwaterloo.ca/sustainability/report

Territorial acknowledgment: The University of Waterloo acknowledges that it operates on the traditional territory of the Attawandaron (Neutral), Anishinaabeg, and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes ten kilometres on each side of the Grand River.

Definitions: By definition, sustainability means maintaining the integrated health of the environment, society, and economy for today and into the future. While this report focuses primarily on environmental indicators relevant to the University of Waterloo, it recognizes that there are mutually reinforcing connections with financial and social sustainability. For brevity, the term "sustainability" will refer to environmental sustainability in this report.

Framework: The University of Waterloo has made efforts to align the data and indicators within this report to those of the Sustainability Tracking, Assessment, and Rating System (STARS) developed by the Association for the Advancement of Sustainability in Higher Education (AASHE)[1], as well as to the objectives established under Waterloo's Environmental Sustainability Strategy.

Sustainable Development Goals: Within the framework of the report, Waterloo also maps its actions towards advancement of the global United Nations Sustainable Development Goals (UN SDGs).

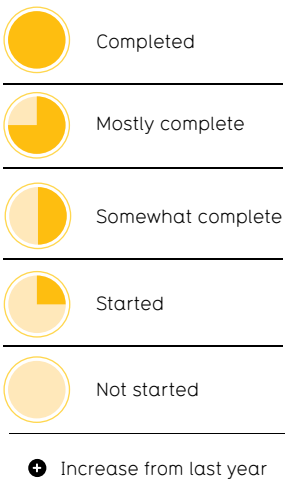
Reporting boundary: This report covers all University of Waterloo campuses, unless otherwise noted. The report indicators do not reflect information from Affiliated and Federated Institutions of Waterloo, although information is included in appendices for transparency.

Contact: Please address any questions about this report to the Sustainability Office (*sustainability@uwaterloo.ca*).

Summary of Progress

Each objective from Waterloo's Environmental Sustainability Strategy is included in the report, with a status bar to summarize qualitative or quantitative completion.

STATUS



Goal: be a leader in sustainability education and research

OBJECTIVE	PROGRESS
A1: By 2019, ensure undergraduate students from any program of study will have the opportunity to learn about sustainability in their courses.	
A2: By 2025, identify and implement flexible strategies for 5 programs of study to more deeply integrate sustainability within the curriculum.	
A3: By 2025, every startup emerging from supporting programs at Waterloo will have access to tools and training to embed sustainability into their emerging business plans and models.	
A4: By 2020, celebrate sustainability research as a core thematic strength of Waterloo's reputation and identity.	
A5: By 2025, become a world leader for research excellence in 5 sustainability related themes.	
A6: By 2025, establish Waterloo as a "go-to" hub for knowledge and expertise on sustainability challenges.	
A7: By 2018, implement 3 new sustainability-related projects annually on campus using faculty and student expertise; by 2025, implement at least 8 new projects annually.	

[1]For full details on STARS, see Association for the Advancement of Sustainability in Higher Education (2017). Sustainability Tracking, Assessment, and Rating System. Accessed June 2019 from **stars.aashe.org**

Goal: operate the campus sustainably

OBJECTIVE	PROGRESS
O1: By 2019, develop a long-term Climate and Energy Action Plan to achieve carbon neutrality by 2050.	
O2: Implement cost-effective and practical strategies to reduce or minimize growth in energy use on campus.	
O3: By 2025, achieve a 60% diversion rate; by 2035, become a zero-waste (90% diversion rate) campus.	
O4: By 2025, reduce water intensity by 5% per square metre from a 2015 baseline.	
O5: By 2025, expand the deployment of stormwater management technologies to targeted areas.	
O6: By 2025, increase to 90% the proportion of sustainable commuting trips from a 2016 baseline of 85%.	
O7: By 2020, increase electric and alternative-fuel vehicle use on campus.	
O8: By 2025, reduce fossil fuel consumption across the campus fleet by 25% from a 2015 baseline.	
O9: By 2025, all University grounds will be maintained according to sustainable landscaping standards, and plans developed for remediation and preservation of specific natural areas of concern.	
O10: By 2025, 40% of all Food Services food and beverage purchases are produced on-site, locally, or are third-party certified for sustainability.	
O11: By 2018, achieve and maintain a Fair Trade Campus designation.	
O12: By 2020, deliver multifaceted programming to grow student and employee awareness about healthy and sustainable food choices.	
O13: By 2020, evaluate life cycle cost and require sustainability disclosure from suppliers for all purchasing decisions over $100,000.	
O14: By 2018, establish baseline data and targets to improve the percent of campus-wide purchases that meet third-party standards for paper, electronic equipment, and cleaning supplies.	

Goal: embed sustainability into campus culture

OBJECTIVE	PROGRESS
E1: By 2020, Waterloo broadly distributes timely and audience-relevant information about sustainability initiatives and opportunities within the campus community.	
E2: By 2020, additional programming is developed for incoming students during orientation and in residences to encourage sustainable living on campus.	
E3: By 2018, establish a sustainability leaders program in partnership with students from residences, clubs and societies, student government, and for students in off-campus housing.	
E4: By 2025, increase from 5% to 25% the proportion of university departments that are Green Office certified.	
E5: By 2020, Waterloo is recognized as a sustainability leader in Waterloo Region.	

Benchmarking and Foundational Actions

OBJECTIVE	PROGRESS
G1: By 2025, achieve and maintain a STARS Gold designation through the Association for the Advancement of Sustainability in Higher Education.	

Key Stats

489 FACULTY
members conducting research that advance the global Sustainable Development Goals

527 COURSES
focused on or related to sustainability

100% GROUNDS MANAGED to integrated pest management principles

12% of all departments certified to Green Office Bronze or higher

19.1% DECREASE
in Scope 1/2 emissions per square metre since 2010

13th GLOBALLY
for impact on the UN SDGs by Times Higher Education

30.5% WASTE DIVERTED
from landfill

91.6% of all cleaning and janitorial supplies are **ECO-CERTIFIED**

28.9% TOTAL FOOD
purchases local or certified for sustainability

3 LOCAL SUSTAINABILITY AWARDS
received since 2016

86% OF TRIPS TO CAMPUS
are by walking, cycling, transit, carpool, or telework

ACADEMICS

Waterloo continues to strengthen its teaching and research to advance sustainable development. Cross-disciplinary research institutes, disciplinary depth, and innovative programs of study are all enabling Waterloo to *be a leader in sustainability education and research.*

PROGRESS SNAPSHOT

OBJECTIVE A1: By 2019, ensure undergraduate students from any program of study will have the opportunity to learn about sustainability in their courses.

STATS

334 Undergraduate courses focused on or related to sustainability

527 Total courses focused on or related to sustainability

OBJECTIVE A2: By 2025, identify and implement flexible strategies for 5 programs of study to more deeply integrate sustainability within the curriculum.

STATS

2 New programs of study considering or integrating sustainability topics

OBJECTIVE A3: By 2025, every startup emerging from supporting programs at Waterloo will have access to tools and training to embed sustainability into their emerging business plans and models.

STATS

– – Indicatiors forthcoming

Teaching and Learning

Supporting UN SDGs:

Every student graduating from the University of Waterloo will have to engage with sustainability challenges throughout their career. Gaining foundational knowledge of issues such as climate change, rising economic inequality, or social inequities, and how they are relevant for each discipline, is critical for world-ready graduates. This is embodied within UN Sustainable Development Goal 4.7, which targets that "all learners acquire the knowledge and skills needed to promote sustainable development."[2]

With over 520 courses related to sustainability within its academic calendar, and a long legacy of environmental academic programming across multiple faculties, Waterloo has an extremely strong foundation to build from. However, not all students have the opportunity to learn about sustainability; the issues and concepts are not covered in many programs of study.

The new Sustainability Diploma is a strong step to enable greater access to relevant sustainability curriculum, and Waterloo will continue to engage departments and instructors with tools and resources to consider the environmental, economic, and social sustainability dimensions of each respective field.

LAUNCHING A DIPLOMA IN SUSTAINABILITY FOR ALL

Throughout 2018, Waterloo designed and approved a new Diploma in Sustainability, which is available to any undergraduate student on campus. The diploma starts with an online fundamentals course, Sustainability: The Future We Want, and requires students to take one course from each elective stream representing the three pillars of sustainability: Environmental Science, Social Wellbeing, and Economic Prosperity.

The diploma is a key step to achieving Objective A1 of the strategy, to ensure that all undergraduate students will have the opportunity to learn about sustainability in their courses.

It will be offered starting in the 2019-20 academic calendar.

LEARN MORE › *ugradcalendar.uwaterloo.ca/page/ENV-Diplomas*

[2]United Nations, "Sustainable Development Goal 4", Sustainable Development Goals Knowledge Platform. Available online at: sustainabledevelopment.un.org/sdg4. Accessed 10 June 2019.

BUILDING PARTNERSHIPS FOR IMPACT

How can the private sector, civil society, and universities come together to support impactful student learning? KEEN Canada, Waterloo's Faculty of Environment, and the Nature Conservancy of Canada (NCC) recently announced their partnership for a special support program for students. The program will offer five four-month internships valued at $10,000 each, and ten scholarships of $5,000 for graduate students.

These Global Citizen Internships provide students with hands-on experiential learning in collaboration with non-profit partners. Envisioned by Jean Andrey, Dean of Environment, the internships provide an opportunity to support the partner organization's impact on communities where they work, and mobilize the knowledge that students learn in the classroom. Andrey's aim is to create 50 internships globally in 2019, as the Faculty of Environment turns 50 in 2019!

LEARN MORE › *uwaterloo.ca/environment/news/keen-canada-university-waterloo-and-nature-conservancy*

EXPLORING PRESSING ISSUES WHILE BUILDING SKILLS FOR SUCCESS

It's a first-year experience like no other: two seminar courses with small class sizes emphasizing discussion and hands-on learning. Launched in Fall 2018, the Arts First program for all incoming students teaches core skills including communication, teamwork, and analysis, while exploring timely topics across multiple disciplines, including the environment and the impacts of climate change. Students often venture beyond the classroom for experiential learning activities, including a Winter 2019 class that headed to the Reep House for Sustainable Living to simulate climate action planning, sharing their unique perspectives through an immersive group activity.

LEARN MORE › *uwaterloo.ca/arts-and-letters/winter-2019/feature/arts-first*

CONNECTING TO ENVIRONMENTAL CHANGE THROUGH PERFORMANCE

In March 2019, the Theatre & Performance program presented Welcome to the Tree Museum – an original play set in a world much like our own that is casually racing towards ecological disaster. An immersive, multimedia performance, the sold-out play told a fable of four siblings who grow up to witness the impending death of their childhood woodland. Featuring a cross-dressed lumberjack choir, this quirky show aimed to incite action by driving home the message that we must save our environment from ourselves. The project also included real and online engagement spaces created by a Knowledge Integration student to provide context and prompts for sustainable living in Waterloo Region.

LEARN MORE › *uwaterloo.ca/communication-arts/welcome-tree-museum-0*

RESEARCH

PROGRESS SNAPSHOT

OBJECTIVE A4: By 2020, celebrate sustainability research as a core thematic strength of Waterloo's reputation and identity.

STATS

Indicators forthcoming

OBJECTIVE A5: By 2025, become a world leader for research excellence in 5 sustainability related themes.

STATS

351 Faculty members conducting research related to Environmental Sustainability

489 Faculty members conducting Research advancing the UN Sustainable Development Goals

TOP 10 Ranking for the Water Institute among water research institutes globally

#5 Global ranking for University Impact on Climate Action by Times Higher Education

OBJECTIVE A6: By 2025, establish Waterloo as a "go-to" hub for knowledge and expertise on sustainability challenges.

STATS

Number of research and knowledge mobilization partnerships forthcoming

OBJECTIVE A7: By 2018, implement 3 new sustainability-related project annually on campus using faculty and student expertise; by 2025, implement at least 8 new projects annually.

('18)

('25)

STATS

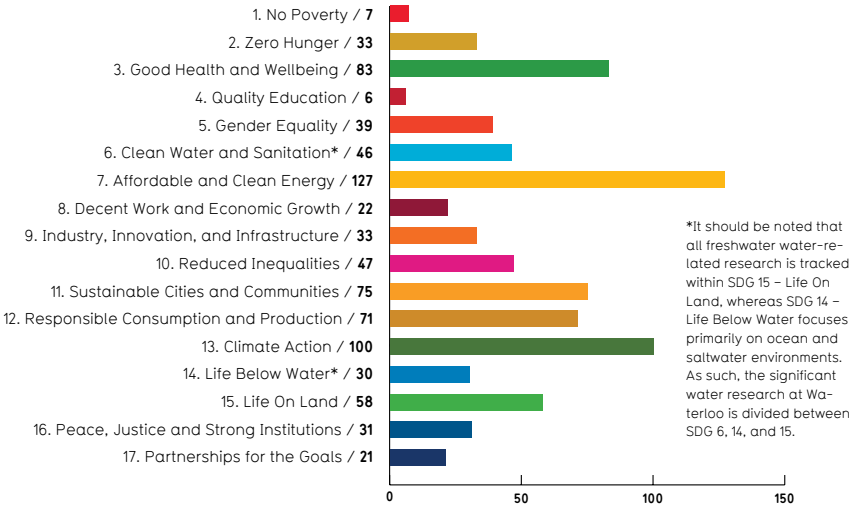
3 Living lab projects completed or underway during 2017–18

Research

Supporting UN SDGs:

Waterloo's researchers are actively addressing some of the most important sustainability challenges around the world. Over 480 faculty members are conducting research that advances the targets of the UN SDGs, and as the host institution of the Sustainable Development Solutions Network Canada, Waterloo's expertise is mobilizing for positive impact on society.

SUSTAINABLE DEVELOPMENT GOAL 2019



Based on an inventory of faculty research focuses mapped against the UN SDGs, Waterloo has clear strengths and strong activity in areas such as water, climate change, sustainable energy, and sustainable cities. This expertise has been recognized globally.

For example, the Water Institute is ranked among the top 10 water research institutions in the world. In 2019, Times Higher Education ranked Waterloo #5 globally for global impact on SDG 13 – Climate Action, based on Waterloo's research and partnership efforts with government and civil society on climate change mitigation and adaptation. Overall, Waterloo was ranked 13th globally for its impact and action on the SDGs.

Waterloo will continue to encourage interdisciplinary collaboration on research and knowledge mobilization to advance the world's sustainability challenges.

USING FOOD WASTE FOR FUEL

A research team in Waterloo's Civil and Environmental Engineering department has developed technology to convert food waste into a clean, alternative fuel source. The technology collects and recirculates leachate – a mixture of microorganisms and nutrients – to create carboxylate as a byproduct. This can be used in the place of petroleum, thus having the potential to be used in many plastic products and drugs. The process is cheaper and more productive than current technologies that trap methane from waste and use it for electricity generation. The technology is meant to be used on a small to medium scale, including small towns. Once the system is tested on a larger scale, researchers hope to commercialize the technology within the next five years.

LEARN MORE › *uwaterloo.ca/news/news/table-scraps-can-be-used-reduce-reliance-fossil-fuels-0*

STRENGTHENING INSTITUTIONAL SUPPORT FOR CLIMATE RESEARCH

In June 2018, the Interdisciplinary Centre on Climate Change (IC3) was approved as a University of Waterloo Research Centre. With this transition, IC3 and its two sub-centres, the Intact Centre on Climate Adaptation and the Canadian Cyrospheric Information Network & Polar Data Catalogue, are working to expand their activities and solidify their status as a leading centre in climate change research. As an official research centre, IC3 now has the capacity to increase its impact across the Waterloo campus community and expand leadership nationally. IC3 will continue to facilitate interdisciplinary collaboration on climate change research, build research partnerships, support the University in developing climate change education, and enhance climate change literacy among youth, the general public, and decision makers across Canada.

LEARN MORE ABOUT IC3 ›*uwaterloo.ca/climate-centre/*

MODELLING SURFACE WATER

Effective management of the environment requires studying how human activities and naturally occurring phenomena impact it. That's why Distinguished Professor Emeritus Don Cowan, a member of Waterloo's Water Institute, developed iEnvironment++, a platform designed to support monitoring and modelling of aspects of surface water.

iEnvironment++ stores and shares information among scientists and engineers engaged in environmental monitoring and modelling. Future researchers will have access to digital archived data from across disciplines, strengthening an interdisciplinary approach that is critical to solving water problems.

LEARN MORE ›*uwaterloo.ca/computer-science/news/interdisciplinary-team-creates-new-software-support-surface*

MANAGING MERCURY IN NORTHERN ONTARIO

Food security is an urgent and growing concern for Indigenous populations in Canada. Environmental change in aquatic ecosystems can impact the health of fish and the communities that rely on those fish in many ways, including exposure to contaminants like mercury. Working with the Fort Albany First Nation, a subarctic community in northern Ontario, University of Waterloo researchers from the Faculty of Applied Health Sciences and Faculty of Science are helping answer one of the most critical questions from Indigenous people in northern Ontario: How safe are fish to eat? This project is one of six new co-led Indigenous projects that are part of the Global Water Futures program, transforming the way communities, governments, and industries in Canada prepare for and manage increasing water-related threats.

LEARN MORE ›*uwaterloo.ca/water-institute/news/waterloo-researchers-work-indigenous-partners-determine-how*

LIVING LAB SPOTLIGHT

Waterloo was one of the first campuses in Canada to champion the idea that students and faculty can use the campus as a living laboratory to study and test the ideas, technologies, and strategies that would be a model for a sustainable future. In the Environmental Sustainability Strategy, the campus again committed to linking operational challenges and actions to research and teaching opportunities. Over the past year, some of these "living lab" projects have included:

- An Environment graduate student developed new waste sorting signs and piloted them at 9 receptacles on campus to evaluate their effectiveness at improving recycling and reducing contamination, and conducted before/after audits.
- An Engineering student group conducted a study and design proposal for Plant Operations on how to reduce the energy costs of the Environment 1 building without negatively impacting the user experience.
- An Environment student group conducted a plug load audit of Environment 1, 2, and 3 to evaluate energy draw from appliances and equipment, as well as opportunities to encourage energy efficient behaviours.

OPERATIONS

PROGRESS SNAPSHOT

OBJECTIVE 01: By 2019, develop a long-term Climate and Energy Action Plan to achieve carbon neutrality by 2050, with interim milestones for 2025 and 2035.

STATS AND TRENDS:

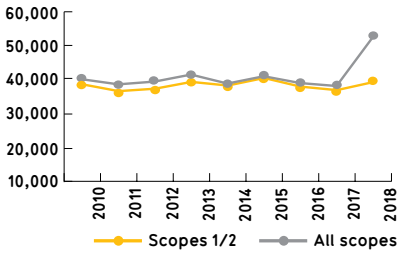
-- Completion of Climate and Energy Action Plan ongoing

39,366 Tonnes of GHG emissions (Scope 1 and 2)

+6.4% Change from 2017

52,361 Tonnes of GHG emissions (all scopes)

TOTAL EMISSIONS (TONNES CO^2-e)



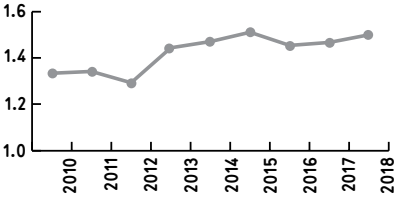
OBJECTIVE 02: Implement cost-effective and practical strategies to reduce or minimize growth in energy use on campus.

STATS AND TRENDS:

1.49 Gigajoules energy use per square metre

+2.3% Change from 2017

ENERGY INTENSITY (GJ/m_2)



In addition to its mission-focused efforts to integrate sustainability within teaching and research, Waterloo is also integrating sustainability principles and concepts within its own practices to *operate the campus sustainably*.

These efforts are important to ensure long-term efficiencies of the campus, to improve satisfaction and wellbeing for students and employees, and to be a model for sustainable innovation that reflects and enhances the University's academic expertise.

Climate Change and Energy

Supporting UN SDGs:

As one of the most pressing global sustainability challenges, Waterloo's carbon emissions are an important focus area for campus sustainability.

Direct emissions from the campus grew by 6.4 per cent in 2018, likely influenced by a colder winter that required more energy to heat buildings. The increase in indirect emissions in 2018 was due to the inclusion of student and employee commuting as new data became available. It is expected that similar emissions would have occurred historically.

The University's direct emissions have remained relatively flat since 2010 despite campus growth, and have decreased on a per-square metre basis. This is, however, almost solely due to the phase out of coal power across Ontario. Without provincial changes, Waterloo's emissions would have increased by over 40 per cent between 2010 and 2018.

2018 GREENHOUSE GAS EMISSIONS

BY SOURCE:
- Natural Gas – 69.8%
- Fleet – 1.0%
- Electricity – 4.4%
- Student Commuting – 10.5%
- Employee Commuting – 11.8%
- Business Travel – Vehicle – 0.6%
- Waste – 1.1%
- T&D Loss – 0.8%

BY SCOPE:
- Scope 1 – 70.8%
- Scope 2 – 4.4%
- Scope 3 – 24.8%

DEVELOPING A CLIMATE AND ENERGY ACTION PLAN

Waterloo has committed to developing an action plan to become carbon neutral by 2050. To complete the plan, the Climate and Energy Working Group (CEWG) formed in 2018, comprised of staff and faculty from multiple offices, as well as a wider network of advisors. Throughout Spring 2018, the CEWG conducted interviews with other campuses, researched best practices, developed baseline and business-as-usual information, and identified important pathways to reach carbon neutrality throughout Fall 2018.

In Winter 2019, the CEWG facilitated a workshop with faculty members, students, staff, and administrators to gain feedback on the key directions and strategies, followed by five public open house events in March and May 2019 that welcomed nearly 200 participants. Additional feedback was collected through an online feedback form.

Development of the action plan will continue throughout the year, with additional opportunities for comments and input from the University community.

LEARN MORE ABOUT THE ACTION PLAN PROCESS › *uwaterloo.ca/sustainability/ceap*

LIGHTING RETROFITS CONTINUE

Plant Operations continued ongoing lighting retrofits, phasing out old inefficient bulbs for more efficient options. Projects in the Davis Centre and Engineering 2 were completed throughout 2018, which will save an expected 198,000 kilowatt hours of electricity on an annual basis.

Waste

Supporting UN SDGs:

Waste is one of the most visible dimensions of sustainability, and is of top concern to students, employees, and the community.

Waterloo's diversion rate increased slightly in 2018, reaching just over 30 per cent. The change came from a small increase in recycling programs, as well as a substantial increase in reuse and repurposing. The weight of garbage sent to landfill decreased slightly even though there were more students and employees on campus.

The diversion rate is, however, notably lower than previously reported due to a methodology change to measurement of composting and reuse programs

PROGRESS SNAPSHOT

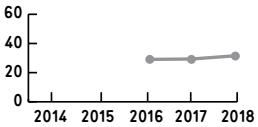
OBJECTIVE 03: By 2025, achieve a 60% diversion rate; by 2035, become a zero-waste campus (90% diversion rate).

STATS AND TRENDS:

30.5% Waste diverted from landfill

3,192 Tonnes of waste sent to landfill

DIVERSION RATE (%)



for yard waste and scrap wood. The updated methodology more accurately reflects the weights of these two sources, but resulted in a decrease from 42 to 28.8 per cent in 2017. This puts Waterloo further behind on its waste reduction objectives.

Waterloo has several major initiatives underway which will shift performance, including the launch in 2018 of an updated campus-wide standard for waste receptacles, a new waste hauling contract, and expanding organics collection.

MAPPING THE ROAD TO ZERO WASTE

In Fall 2018, Waterloo developed its first outline of a Zero Waste Action Plan for the University. The Action Plan identifies five key pillars and supporting activities that will guide the University's transition to a zero waste campus by 2035. The pillars include:

- Engagement and training
- Reducing and eliminating waste
- Maximizing recycling
- Capturing organics
- Expanding reuse programs

TO LEARN MORE › *uwaterloo.ca/sustainability/zerowasteactionplan*

CHAMPIONING ZERO WASTE WEEK

In October 2018, Waterloo hosted its second annual Zero Waste Week to educate and empower the campus community to better manage and reduce their waste.

- 420 tried out the mason jar challenge, collecting all their waste for one week in a jar
- 180 tested their sorting smarts through an online quiz
- 170 participated in a sorting challenge to correctly sort 20 common items in 30 seconds
- Plant Operations created Waste Mountain, collecting all garbage from one building for the week and stacking it on the DC common to visualize

Employees from 22 Green Office departments participated in the mason jar challenge to compete for the Waste Warrior 2018 title, including a head-to-head challenge between the Dean of Applied Health Sciences and the Dean of Environment. The Faculty Association of the University of Waterloo and the Safety Office tied for first in the small office category; the Dean of Environment took home the prize in the medium office category; and the Dean of Engineering and Human Resources tied for gold in the large office category.

TO LEARN MORE › *uwaterloo.ca/sustainability/waste*

REMOVING PLASTIC STRAWS

After listening to the students, staff, and faculty at Waterloo, it was clear that plastic straws were not welcome on campus. Food Services moved quickly to phase them out of all non-franchise locations and replace them with paper straws. Food Services decided to take it one step further, phasing out plastic bags and plastic stir sticks. These actions have resulted in reduced waste and recognition from the President's Office. Food Services is continuing the effort by encouraging franchise partners to follow in their footsteps and ban plastic straws as well.

REVITALIZING CAMPUS COLLECTION SYSTEMS

Waterloo has taken substantial steps to update its waste hauling system over the past year to enable better handling and management of core waste streams. Major steps include:

- Expanding standardized waste receptacles, with consistent signage, to outdoor locations and Food Service areas, which will continue to be rolled out
- Entering into a new waste hauling contract to enable expansion of organics collection and building-level data on waste generation and diversion

As a result of the new contract, there are a few key changes to how items should be sorted on campus, including the following:

- Coffee cups should go into the organics bin or the papers bin where organics is unavailable (put lids in the recycling)
- Plastic bags are no longer recyclable
- Plastic cutlery labelled with a recycling symbol 1–7 can be put in recycling
- Cereal and tissue boxes, as well as coffee trays, should be collapsed and placed next to recycling stations to be collected with cardboard

TO LEARN MORE ABOUT SORTING YOUR WASTE ON CAMPUS › *uwaterloo.ca/sustainability/sortingguide*

Water

Supporting UN SDGs:

Waterloo's water consumption has shown a decreasing trend since 2013 in absolute and intensity terms, with over 8.3 per cent reduction in intensity between 2015 and 2017 and 29 per cent since 2010. As there were no substantial programs implemented over the past few years, it remains unclear why the reduction occurred. 2018 data has not been included in this year's report, as there were issues with the collection of metered data. Corrected statistics will be included in the 2020 report.

Waterloo has also continued to expand stormwater management features of the campus. Stormwater management technologies help slow down and retain water to reduce the risk of flooding during intense rainfall events and reduce the burden on municipal stormwater systems. The PAC/SLC expansion will feature a section of green roof, and the Northwest campus has implemented three new stormwater ponds over the past few years.

PROGRESS SNAPSHOT

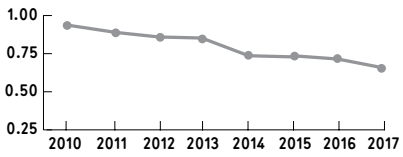
OBJECTIVE 04: By 2025, reduce water intensity by 5% per square metre from a 2015 baseline.

STATS AND TRENDS:

-8.3% Water use per square metre since 2015

0.67 Metres cubed water use per square metre

WATER USE (m^3 per m^2)



OBJECTIVE 05: By 2025, expand the deployment of stormwater management technologies to targeted areas.

STATS:

3 New stormwater management features on campus

14 Stormwater features implemented on campus

Transportation

PROGRESS SNAPSHOT

OBJECTIVE 06: By 2025, increase to 90% the proportion of sustainable commuting trips from a 2016 baseline of 85%.

STATS:

86% Combined student and employee trips to campus using a sustainable mode

91% Student trips to campus by walking, cycling, carpooling, transit, or online learning

43% Employee commuting trips by walking, cycling, carpooling, transit, or telework

OBJECTIVE 07: By 2020, increase electric and alternative-fuel vehicle use on campus.

1% Of vehicles used to commute to campus are electric or plug-in hybrid electric

3 Publically available EV charging stations

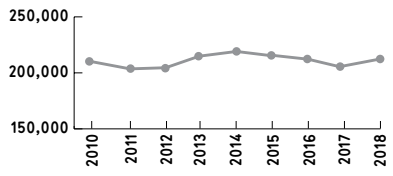
OBJECTIVE 08: By 2025, reduce fossil fuel consumption across the campus fleet by 25% from a 2015 baseline.

STATS AND TRENDS:

-1.4% Decrease in fleet fuel consumption since 2015

213,275 Litres fuel consumption

FLEET FUEL USE (LITRES)



Transportation

Supporting UN SDGs:

Transportation is a major source of carbon emissions, uses space within the community, and has important health and safety impacts.

Waterloo continues to support services that encourage healthy and sustainable forms of traveling to class and to work. These include pilots of new micro-mobility solutions such as bike-sharing and e-scooters, car-sharing, secure bike storage, and working with local government on expanding transit infrastructure with the launch of the ION light rail system and on-campus transit hub.

In 2018, it is estimated that approximately 86 per cent of trips to campus were by walking, cycling, transit, carpooling, or working from home. Over 91 per cent of students and 43 per cent of employees used a more sustainable form of transportation than driving alone.

On campus, fuel consumption for University-owned fleet vehicles increased by 3.8 per cent during 2018, rolling back some of the reduction trends from 2016 and 2017. Concerted effort will need to be made to improve fuel efficiency in new vehicle purchases and in vehicle use.

EXPANDING BIKE STORAGE ACROSS CAMPUS

Looking for bike parking on campus? Construction of a new secure bike cage began in Winter 2019, located between Environment 3 and Modern Languages. Once completed, the cage will hold 48 bikes and spaces can be reserved for $10+HST/month, managed through Parking Services.

The bike cage project began as a student initiative to support more active and sustainable means of transportation to and from campus. Funding support was provided by Parking Services, the Sustainability Action Fund (SAF), the Waterloo Environment Students Endowment Fund (WESEF), VP Administration & Finance, the Faculty of Environment, the Faculty of Arts, and the Faculty Association of the University of Waterloo (FAUW).

The bike cage project supports student and employee health and well-being by encouraging healthier and more active modes of transportation, and aligns with directives in the 2009 Campus Master Plan.

TO LEARN MORE › *uwaterloo.ca/sustainability/news/new-secure-bike-cage-coming-campus*

ENABLING FIRST/LAST MILE MOBILITY SOLUTIONS

Throughout 2018 and early 2019, the University has launched two new micro-mobility programs to support the first- and last-mile of student and employee commutes.

The University entered into an agreement with Lime for a pilot of electric scooters on campus, the first university to launch an e-scooter program in Canada. This expands upon a community pilot with the City of Waterloo that extended along the Laurel Trail. During the pilot, students and employees could use the scooters within the South Campus boundaries using the smartphone app.

In addition, Waterloo launched a campus-wide bike sharing program with DropBike. The program also launched as a region-wide pilot, allowing for seamless travel on and off campus between any of the network hubs. Bike rentals are managed through the Drop Mobility app on Android and IOS.

TO LEARN MORE › *uwaterloo.ca/sustainability/projects-and-initiatives/transportation#BikeWalking*

ENCOURAGING ACTIVE TRANSPORTATION

In June 2019, Waterloo hosted its fourth annual Bike Month campaign to encourage and celebrate cycling as a healthy, affordable, and environmentally-friendly commuting option. The month kicked off with a bike repair workshop with King Street Cycles, where participants learned some roadside repair basics, including how to fix a popped tire, adjust gears and brakes, and keep your chain running smoothly. A few weeks later, the annual Bike Lunch welcomed nearly 300 attendees for free food, tune-ups from the Bike Centre and King Street Cycles, and a chance to chat with local vendors about active and sustainable transportation.

Throughout the month, students and employees were also encouraged to log their cycling trips to campus as part of the Bike Challenge. More than 1,900 trips were logged by over 100 cyclists, racking up 11,637 of reported cycling, cost savings of $4,270, and more than 2.6 tonnes of carbon emissions were avoided!

TO LEARN MORE › *uwaterloo.ca/sustainability/projects-and-initiatives/transportation#BikeWalking*

STRENGTHENING LOCAL TRANSIT CONNECTIONS

Construction and testing of the ION light rail system continued throughout 2018, and officially launched in June 2019. ION connects the central corridor through Waterloo Region, and includes stations on Waterloo's South Campus, the David Johnston Research and Technology Park, and the Kitchener Health Sciences campus. Grand River Transit routes were realigned to connect with ION throughout the Region, including a new transit terminal on the University's East Campus, which will launch in Fall 2019.

These service improvements will make it easier for students and employees to take transit to campus.

FOR MORE INFORMATION ON REGIONAL TRANSIT OPTIONS, VISIT › *grt.ca*

Grounds

Supporting UN SDGs:

With over 1,100 acres of campus grounds, Waterloo is blessed with abundant natural areas and ecological assets. The Campus Master Plan seeks to preserve greenspace across campus, and students and employees have made many efforts to protect and restore natural areas on campus.

PROGRESS SNAPSHOT

OBJECTIVE 09: By 2025, all University grounds will be maintained according to sustainable landscaping standards, and plans developed for remediation and preservation of specific natural areas of concern.

STATS:

-- Percent compliance with sustainable landscaping standard forthcoming

100% Grounds managed to integrated pest management principles

PLANTING TREES AS A TEAM

In the spirt of friendly competition, the Library and the Registrar's Office created their own Green Office challenge in 2018 to see which office could fundraise more money to plant a tree. Working together with the Grounds team, the offices decided on a beautiful White Pine, a tree suited to Waterloo's local climate, and planted the tree next to Needles Hall so that it could be enjoyed by both offices!

FINDING A GREEN OASIS ON CAMPUS

Waterloo is blessed with many green space across its campus. To make it easier for students and employees to enjoy these green spaces, the Sustainability Office worked with Mapping, Analysis, and Design to add in several layers to the Campus Map, including green spaces and green roofs. Users can toggle to Points of Interest > Sustainability on the campus map to view these and other sustainability-related features on campus.

TO LEARN MORE › *uwaterloo.ca/map*

FOOD

Food

Supporting UN SDGs:

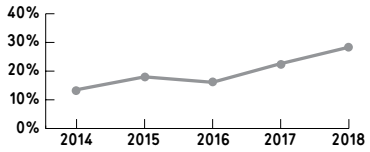
PROGRESS SNAPSHOT

OBJECTIVE 010: By 2025, 40% of all Food Services food and beverage purchases are produced on-site, locally, or are third-party certified for sustainability.

STATS AND TRENDS:

28.9% Of all food and beverage purchases are local, produced on-site, or third-party certified for sustainability

% OF PURCHASES MEETING OBJECTIVE



OBJECTIVE 011: By 2018, achieve and maintain a Fair Trade Campus designation.

STATS AND TRENDS:

COMPLETE Fair Trade Campus Designation received May 2019

OBJECTIVE 012: By 2020, deliver multifaceted programming to grow student and employee awareness about healthy and sustainable food choices.

STATS:

8 Projects or initiatives to increase food health and sustainability awareness

Food systems play an integral role in global sustainability. Energy, water, land, and natural resources are required to grow, harvest, manufacture, and deliver food around the world.

Waterloo continues to increase the proportion of all on-campus food and beverage purchases that come from lower impact sources. These include food products that are produced locally, or which are certified for sustainability criteria, such as Marine Stewardship Council (MSC) certified seafood, and Fairtrade certified coffee, tea, and chocolate.

Waterloo is also initiating new programs, services, and events to strengthen communication to campus users on the health and environmental impacts of everyday food choices.

BRUSHING UP SKILLS WITH A VEGAN VEGETARIAN COOKING CLASS

In January 2019, all Food Services chefs took part in a two-day, full-day workshop on vegetarian and vegan cooking led by the Humane Society International/Canada.

Food Services continues to expand its menu to include more vegan and vegetarian options on campus, and now offers a Meatless Monday powerbowl at Brubacher's in the SLC each week.

TO LEARN MORE › *uwaterloo.ca/food-services*

CELEBRATING FAIR TRADE CAMPUS DESIGNATION

In May 2019, Waterloo was thrilled to receive its official Fair Trade Campus Designation, recognizing campus-wide efforts by staff and students to integrate Fairtrade certified coffee, tea, and chocolate options. Fair trade is a global framework that supports sustainable development for farmers and farming communities by:

- Guaranteeing they receive a minimum fair price for coffee, cocoa, tea, and other products they produce, and raising living standards
- Supporting decent working conditions for families
- Investing in communities
- Protecting the natural environment

You can find Fairtrade coffee, tea, and chocolate at all of the following locations across campus:

- All residence cafeterias
- All Food-Services run coffee shops (not franchises)
- WUSA International News
- WUSA Caffeine Dispensary
- Graduate House
- Arts Tuck Shop
- Environment Student Coffee Shop
- Engineering C&D (CPH and E7)
- Science C&D
- Math C&D
- Catering Services Menu
- University Club

TO LEARN MORE › *uwaterloo.ca/sustainability/news/waterloo-receives-fair-trade-campus-designation*

SURPRISING WITH A VEGAN COOKING SHOW

From chatting with students around campus, there was a realization that sometimes vegan was associated with food that was bland, not filling, and didn't contain enough nutrients. Food Services decided that education around delicious and nutritious plant based food was necessary. Chef Gord surprised the 150 attendants of the fall cooking show by saying "While you thought this was a harvest cooking show, what we didn't tell you was, it is entirely vegan! Stay in your seats!" After the initial shock wore off, the attendees realized the huge variety of vegan food and how it can be flavourful, colourful, and nutritious. The feedback was extremely positive and attendees noted it was their favourite cooking show ever!

PROCUREMENT

Procurement

Supporting UN SDGs:

PROGRESS SNAPSHOT

OBJECTIVE 012: By 2020, evaluate life cycle cost and require sustainability disclosure from suppliers for all purchasing decisions over $100,000.

STATS:

-- Integration into procurement processes forthcoming

OBJECTIVE 013: By 2018, establish baseline data and targets to improve the percent of campus-wide purchases that meet third-party standards for paper, electronic equipment, and cleaning supplies.

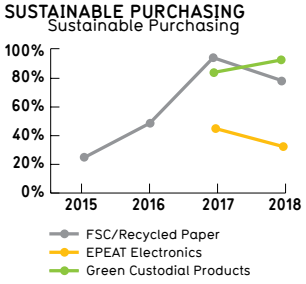
STATS AND TRENDS:

77.2% Of all paper purchases have FSC certification and/or recycled content

31.3% Of all major electronics purchased are certified to EPEAT Bronze or higher

91.6% Of all janitorial cleaning and paper products have an environmental certification

SUSTAINABLE PURCHASING



Waterloo has a major opportunity to manage and leverage its buying power by selecting responsibly sourced products for everyday operations, and ensuring that long-term costs and impacts are factored into purchasing decisions.

Throughout 2018 and 2019, the University has begun development of lifecycle costing guidelines that will help price long-term costs such as energy, water, and waste into large infrastructure and vehicle purchases. This will improve the case for buying more efficient equipment and assets, as well as raise the visibility of the long-term costs of those assets.

Waterloo has also established baseline information for three purchasing areas that create impact throughout the supply chain, and for which there are more sustainable options available.

PURCHASING RECYCLED AND CERTIFIED PAPER

Waterloo has made efforts to increase the amount of Forest Stewardship Council (FSC) certified paper and/or paper with recycled content that is used on campus.

Over 77 per cent of paper purchased through Waterloo's bulk purchasing contracts and Staples is currently FSC certified or contains recycled content. This is a decline of almost 15 per cent from 2017. Waterloo has not yet established a target in this area.

SELECTING EPEAT CERTIFIED ELECTRONICS

Electronic devices also have a large footprint through the extraction of metals and resources, manufacturing, use, and disposal. The EPEAT certification is one tool to evaluate the lifecycle impact of electronic devices.

Approximately 31 per cent of all electronics purchased through major suppliers are certified to EPEAT Bronze or higher, a decline from 2017. Waterloo has not yet established a target in this area.

CLEANING WITH ECO-FRIENDLY OPTIONS

Waterloo has also made efforts to track and increase the use of more environmentally-friendly cleaning and janitorial supplies. Custodial staff continue to select products that carry the Green Seal, UL Ecologo, or FSC labels for cleaning chemicals and janitorial paper.

Over 91 per cent of all cleaning supplies carry one or more of these environmental certifications. This is a strong increase from 2017, but was partially influenced by a number of transitions in custodial purchasing that were unique to 2018.

The University has established a 92 per cent target in this area going forward.

ENGAGEMENT

Supporting UN SDGs:

All of Waterloo's academic and operational sustainability efforts begin and end with people. Learning, research, and action comes through *embedding sustainability practices into campus culture.*

Throughout 2018 and 2019, Waterloo continued its efforts to engage students and employees in campus practices to advance shared objectives. These include expansion of the Green Office program and Sustainability Certificate for employees, as well as launching a Green Residence Ambassador pilot for students, collaborating on student-led conferences, partnering with WWF Canada on the new Living Planet @ Campus program, and mobilizing student and employee engagement within the local community.

PROGRESS SNAPSHOT

OBJECTIVE E1: By 2020, Waterloo broadly distributes timely and audience-relevant information about sustainability initiatives and opportunities within the campus community.

STATS

38,600	Unique page views on the sustainability website
4,100+	Sustainability report views and downloads
7,469	Engagements on social media channels
1,012	New followers on social media channels
3	Campus-wide engagement campaigns

OBJECTIVE E2: By 2020, additional programming is developed for incoming students during orientation and in residences to encourage sustainable living on campus.

STATS

--	Percent of first year students reached by sustainability programs

OBJECTIVE E3: By 2018, establish a sustainability leaders program in partnership with students from residences, clubs and societies, student government, and for students in off-campus housing.

STATS

21	Student groups and clubs involved in the Sustainability Network/Impact Alliance

Students

COLLABORATING FOR CHANGE

In Fall 2018, two undergraduate students from Computer Science and Environment and Business launched the Impact Alliance, a centralized network of student leaders striving to make a positive impact on economic, environmental, and social sustainability, an expansion of the Sustainability Network's focus on the environment. In March 2019, the Alliance hosted two campus wide-events, including the GooseChase scavenger hunt and the Global Solutions Conference. Using the Sustainable Development Goals (SDGs) as a framework, the week-long scavenger hunt showcased the interdisciplinary nature of sustainability by partnering with 35 departments, clubs, and services across campus and engaged more than 400 students and employees. To wrap up the week's activities, the Alliance hosted their first Global Solutions Conference in partnership with the Waterloo Global Science Initiative (WGSI), Sustainable Development Solutions Network (SDSN) Canada, and the Sustainability Office. The event welcomed more than 150 delegates and esteemed guests to participate in breakout sessions on pathways to sustainability through collaboration.

TO LEARN MORE › *impactalliance.ca*

ENGAGING PEERS IN GREEN RESIDENCE AMBASSADOR PILOT

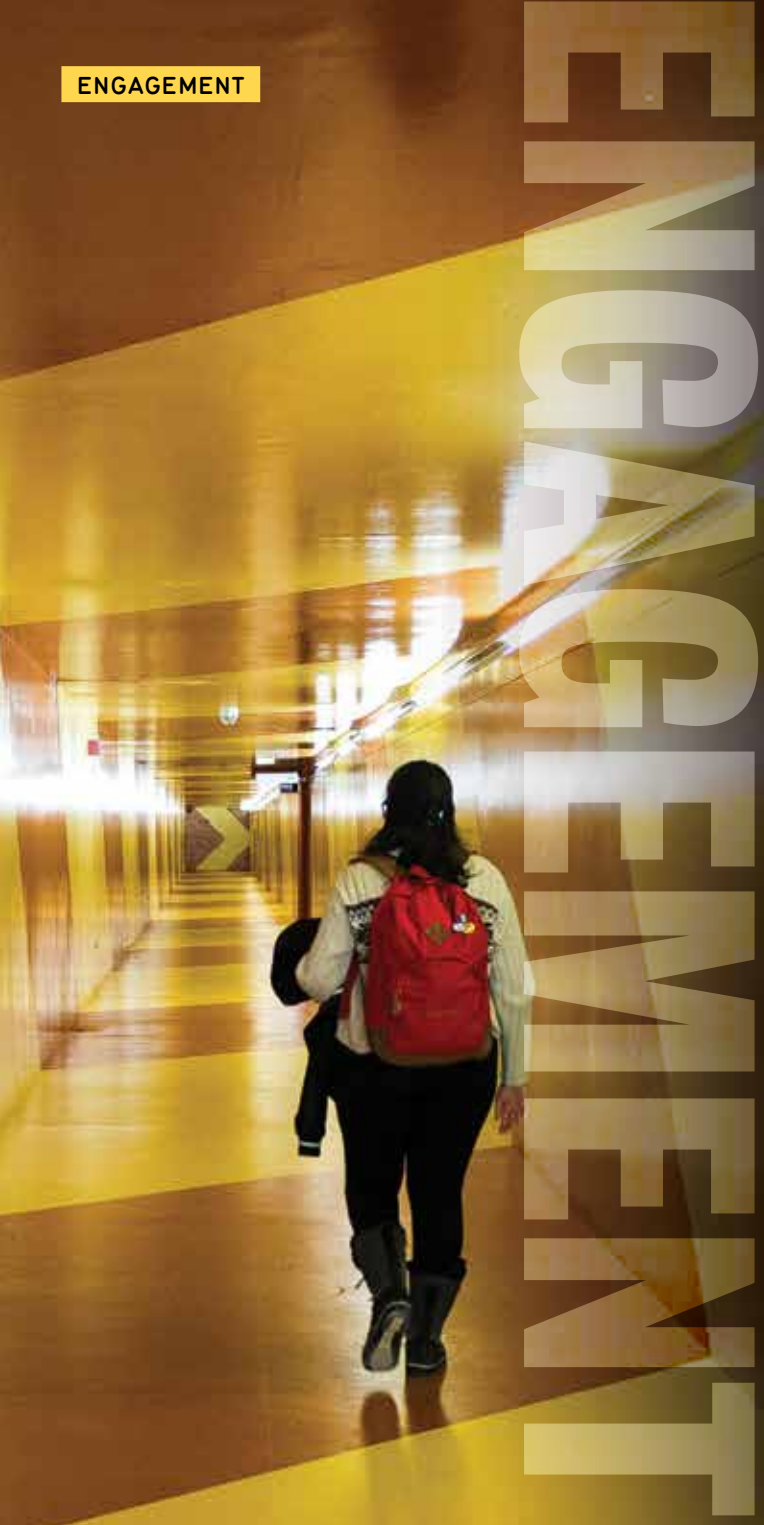
In partnership with Housing and Residences, the Sustainability Office piloted a Green Residence Ambassador program with 20 student ambassadors across four residences (CLV-S, REV, UWP, and V1) during the Winter 2019 term. Focusing on waste reduction, ambassadors hosted weekly educational booths and waste sorting activities to encourage their peers to learn about waste reduction programs on campus and proper sorting while living in residence. The program engaged 250 students throughout the term, and provided an important leadership opportunity for ambassadors. The program will be officially launched in Fall 2019 and will be expanded to include other areas of sustainable living and more opportunities for residence students to get involved.

TO LEARN MORE › *uwaterloo.ca/sustainability/greenrez*

HOSTING THE FIRST SCI DAY

With support from the Sustainability Action Fund and the WWF Go Wild School Grant, the Sustainable Campus Initiative hosted its first SCI Day in January 2019. This conference brought together students and community partners to network and promote sustainable education and career development for all students, regardless of their discipline. The day featured a panel discussion, two networking sessions, and six workshop presentations, engaging more than 100 attendees.

TO LEARN MORE › *wusa.ca/services/sustainable-campus-initiative*



Employees

WORKING TOGETHER FOR GREENER OFFICES

How can employees plug into sustainability in their work? Waterloo's Green Office program supports and encourages individual departments to build a culture of sustainability in their own units, by sharing information and resources, participating in events and programs, and implementing new initiatives. Each department works through a common scorecard to monitor progress and take on new actions, championed by a dedicated ambassador or green team.

PROGRESS SNAPSHOT

OBJECTIVE E4: By 2025, increase from 5% to 25% the proportion of university departments that are Green Office certified.

STATS

12% University departments achieving at least Green Office Bronze

As of June 2019, there were 42 departments participating in the program, with nearly 75 ambassadors and representing close to 1,700 employees on campus. Departments receiving Green Office certificates include:

GREEN OFFICE GOLD CERTIFIED

Green Office Gold:

- Centre for Teaching Excellence
- WatPD/WatCACE

GREEN OFFICE SILVER CERTIFIED

Green Office Silver:

- Dean of Applied Health Sciences Office
- Dean of Engineering Office
- Dean of Environment Office
- Library
- Political Science
- President's Office
- Registrar's Office

GREEN OFFICE BRONZE CERTIFIED

Green Office Bronze:

- AccessAbility Services
- Centre for Career Action
- Centre for Extended Learning
- Dean of Math Office
- Faculty Association of UW
- FEDS
- Human Resources
- Knowledge Integration
- Plant Operations – Design Services
- Renison English Language Institute
- Student Success Office
- Water Institute
- Writing and Communication Centre

GREEN OFFICE

SEE ALL GREEN OFFICES ›
uwaterloo.ca/sustainability/go

NORMALIZING SUSTAINABILITY IN OFFICE CULTURE

WatPD undertook several organized initiatives to embrace sustainability throughout 2018. Their engaged team of co-op Teaching Assistants and staff have been instrumental in implementing efforts like the zero-waste culture in their office space, which uses compost jars at each desk in place of garbage cans, and the addition of indoor plants at as many workspaces as possible. They credit impactful messaging and the willingness of their team to embrace change and try new ideas to the success of their programs. In 2019, they are furthering these efforts through a new department-wide newsletter to help spread sustainability awareness.

CELEBRATING 100TH GRADUATE OF THE EMPLOYEE SUSTAINABILITY CERTIFICATE

In April 2019, the Sustainability Office was delighted to award a completed Sustainability Certificate to its 100th graduate, Rachel Figueiredo. Reflecting on the experience, she said,

"As a member of the Library's Green Office Team, I wanted to take the Sustainability Certificate courses to learn more about what Waterloo is doing to address topics like sustainable food and waste management on campus. But I have to admit that I didn't jump to take the course until I heard all the ways it enables you to make changes at home – often including some decent cost savings! The most memorable takeaway was learning how much we spend on heating our homes and buildings, especially given the cold Canadian climate. But even reducing drying times and using shorter drying cycles saves a good amount of energy. I also learned about the best green spaces and rooftop gardens across campus, so I'm excited to start exploring those this summer!"

As of June 2019, 110 employees have completed the certificate and an additional 120 employees have started the series. The Sustainability Certificate is freely available to all University employees and is offered on a termly basis.

TO LEARN MORE › *uwaterloo.ca/sustainability/certificate*

Community

LIVING PLANET @ CAMPUS

Throughout 2018, the Sustainability Office worked with WWF Canada, along with eight other post-secondary institutions, as a founding partner of the Living Planet @ Campus program. The program encourages students to practice sustainability and environmental protection on campus and beyond. The program boasts a range of opportunities for students to get involved and boost their resumes, such as community clean-ups, hackathon competitions, and grant funding. Students can also earn WWF's new Living Planet Leader Designation by completing actions related to sustainability in their coursework, volunteerism, and personal living. Over 130 students have plugged into the Living Planet @ Campus platform as of June 2019.

TO LEARN MORE › *uwaterloo.ca/sustainability/livingplanet*

PROGRESS SNAPSHOT

OBJECTIVE E4: By 2020, Waterloo is recognized as a sustainability leader in Waterloo Region.

STATS

3 Local sustainability awards since 2016

12 Local non-academic community partnerships, memberships, board roles, or advisory involvement related to sustainability

ENGINEERING AFTER SCHOOL CLUB, SUSTAINABILITY EDITION

In collaboration with the Sustainability Office, Engineering Outreach developed a Senior After School Club for grade 6 and 7 students, with a focus on sustainability concepts as they connect to STEM fields and applications. The Engineering Outreach team chose this focus to expose students to a wider range of engineering applications, and to inspire youth to apply their skills in STEM to improve the environment and make progress in sustainable design. Over the eight weeks, students got a behind-the-scenes look at various labs and energy facilities on campus, participated in design challenges, and finished by playing the Energize game to brainstorm how Waterloo Region can achieve its greenhouse gas emission reduction target of 80 per cent by 2050!

TO LEARN MORE › *uwaterloo.ca/engineering-science-quest*

MEASURING QUALITY OF LIFE IN OUR COMMUNITIES

In December 2018, researchers and staff from the University of Waterloo participated in a local workshop forum about different frameworks for cities to measure the social, economic, and environmental indicators of community vitality. Speakers from the Sustainable Development Solutions Network – Canada as well as the Canadian Index of Wellbeing, both hosted at Waterloo, explored how the UN SDGs and Canadian Index of Wellbeing were two frameworks that municipalities could utilize to ensure holistic community development.

The event was organized by the Region of Waterloo and attendees included civil society, researchers, municipal staff, and members of the public.

CANADIAN Index OF WELLBEING
Measuring what matters
Making measures matter

SDSN Canada

GOVERNANCE AND BENCHM

As the previous sections illustrate, sustainability action occurs across many areas of campus. These efforts are critical to changing behaviours, increasing involvement, building a culture that embraces sustainability, and developing sustainable infrastructure.

Waterloo is also establishing policies and practices to better integrate sustainability into institutional decision-making to support existing actions and address areas of opportunity.

PROGRESS SNAPSHOT

OBJECTIVE G1: By 2025, achieve and maintain a STARS Gold designation through the Association for the Advancement of Sustainability in Higher Education.

STATS

SILVER STARS Silver Designation earned in November 2018

ARKING

FORMAL POLICIES, MEMBERSHIPS, PRACTICES, AND COMMITMENTS

Internal:

- Policy 53: Environmental Sustainability (new 2017)
- Environmental Sustainability Strategy (new 2017)
- Waste and recycling standard (new 2017)
- High efficiency lighting retrofits mandated during construction and renovation (new 2018)
- Eliminated use of chemical pesticides
- Centralized office printers defaulted to double-sided printing
- Campus Master Plan includes sustainability aspects as defining features of campus development (2009)

External:

- Member and host institution in collaboration with WGSI for Sustainable Development Solutions Network Canada (new 2018)
- Signatory to Council of Ontario Universities Pledge, Ontario Universities, Committed to a Greener World (2009)
- Signatory to 2017 Council of Ontario Universities commitment to design a roadmap to a low-carbon campus (2017)
- Member of the Regional Sustainability Initiative, managed by Sustainable Waterloo Region, and Bronze Pledging Partner for Waste (2017)
- Member of TravelWise, managed by the Region of Waterloo and Sustainable Waterloo Region (2012)
- Member of the Association for the Advancement of Sustainability in Higher Education (2015)

Looking forward

Two years have passed since Waterloo's Environmental Sustainability Strategy was created, and the University continues to make progress toward its goals. In some areas, however, these efforts are not moving quickly enough to reach the identified objectives.

Climate and energy: The Climate and Energy Working Group have continued development of the Climate and Energy Action Plan, however progress has been slower than expected and there is still a lack of data to inform a robust plan. In the meantime, the performance metrics on energy and climate change continue to move in the opposite direction. Given the scale of this challenge, it is imperative that Waterloo adopt a whole-of-institution approach and secure active support from all levels of the University.

Integrating into planning: On some of the objectives that have fallen behind schedule, there are implementation gaps. While the Sustainability Office can catalyse action and provide expertise and support, these must be strengthened in individual unit plans across campus. Some examples include Waterloo's objectives to reduce fuel consumption from the fleet, and efforts to deepen inclusion within the curriculum.

Foundational actions: As part of the Environmental Sustainability Strategy, Waterloo noted five foundational actions that would be critical to advance the objectives:

- Core Value
- Sustainability Office
- Sustainability Action Fund
- Continual Reporting
- Living Laboratory

Waterloo did not report on these previously as the Strategy had just been launched, and is reflecting on them here for the first time. Of these actions some progress has been made to integrate sustainability more prominently within the next strategic plan, the Sustainability Office has added an additional staff member, the Sustainability Action Fund has ramped up a projects fund to support community-driven projects, and reporting has continued.

However, the $6 million revolving fund, which was recommended as a first step to accelerate energy efficiency projects, has not advanced, and implementation of the Living Laboratory framework has been delayed due to limited capacity.

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