

WATERLOO | ENVIRONMENT


STRATEGIC PLAN 2020-2025

TOGETHER FOR A SUSTAINABLE FUTURE



UNIVERSITY OF
WATERLOO

FACULTY OF
ENVIRONMENT



SUSTAINABILITY IS A DRIVER OF MODERNIZATION;
WHERE INDUSTRY AND ENVIRONMENT, ECOLOGY
AND ECONOMY ARE NOT CONFLICTING GOALS,
BUT RATHER QUITE INTRINSICALLY LINKED.

**TOGETHER FOR
A SUSTAINABLE
FUTURE**



The ever-branching image of a tree poignantly depicts interconnections between all living things.

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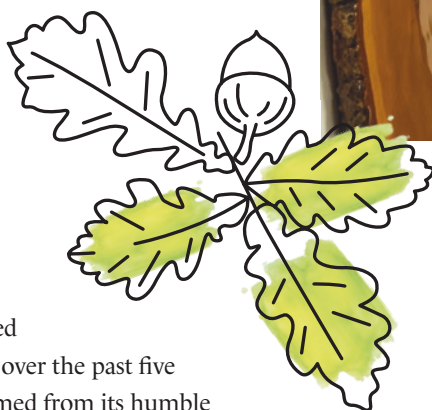
OUR VISION

TO USE OUR UNIQUE POSITION AS A LEADING TEACHING AND RESEARCH INSTITUTE FOR THE ENVIRONMENT TO CREATE SUSTAINABLE SOLUTIONS NEEDED TO ADDRESS THE COMPLEX CHALLENGES FACING OUR WORLD.



Using the United Nations 17 Sustainable Development Goals (SDGs) as a guide, Environment is poised to lead Waterloo, and the global sustainability community in transforming our economy, our cities, our society, and how we care for our planet.

THE FIRST 50 YEARS



In July of 1969, the “Division of Environmental Studies” was created at the University of Waterloo, and over the past five decades, the Division has transformed from its humble but aspirational origins to become Canada’s largest Faculty of Environment. It has been home to more than 16,000 alumni who now live in 89 countries around the globe, including ecologists, geographers, knowledge integrators, pilots, planners and scientists, as well as experts in corporate sustainability, economic development, environmental governance, geomatics, green business, policy analysis, and tourism.

In 50 years, the Faculty of Environment has transformed itself from being the problem framers to becoming the problem solvers.

Throughout its history, the Faculty of Environment has been dedicated to creating a positive impact locally and globally by focusing on **human-environment interactions**. Our community of students, faculty, alumni, donors and staff make meaningful change happen in the classroom, the workplace, and in communities across Canada and around the world.

The Faculty of Environment has focused on **interdisciplinary research and applied, experiential learning** since its inception. In the words of Feridun Hamdullahpur, President of the University of Waterloo, “the Faculty’s addition to our institution is a prime example of collaborative research and teaching across disciplines that has produced innovation and shifted public policy to build a strong environment.”



JEAN ANDREY
DEAN, FACULTY OF ENVIRONMENT
UNIVERSITY OF WATERLOO

The world needs our expertise more than ever. Climate change, and the need to find environmental and sustainable solutions, impel society to fundamentally transform our economy and how we live. We need interdisciplinary approaches, new technologies, social innovation, better information, and deeper understandings of natural and societal processes to address the complex environmental and social challenges of our century.

The Faculty’s Strategic Plan 2020-2025, *Together for a sustainable future*, sets our course and provides a framework for working toward achievement of the United Nations 17 Sustainable Development Goals by partnering with others in educational programs and research activities, and through external engagements. Our focus on sustainability signals our attention to the needs of both current and future generations, to the criticality of healthy ecosystems, and to the importance of universal access to the essentials of life for all humans.

Built on the perspectives, insights, and advice of engaged stakeholders and alumni, as well as trusted advisors, the plan identifies priorities that support our vision to be a leading teaching and research institute for the environment and sustainability; a place where people come together to advance understanding of and to mobilize solutions for sustainability.

¹See *The First 50 Years* by Robert Shipley (2019) for a detailed account of our formation and evolution. uwaterloo.ca/environment/sites/ca.environment/files/uploads/files/thefirst50years.pdf

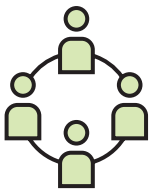
KEY ACHIEVEMENTS UNDER THE PREVIOUS PLANS

2007-2013

Our 2007-2013 Strategic Plan, *Smart Green Solutions*, outlined and achieved an ambitious growth agenda that included the addition of 16 new degree/diploma/collaborative programs. That same period witnessed a near doubling of undergraduate and graduate student enrolment and a substantial increase in faculty-staff complement.

2013-2018

Our 2013-2018 Strategic Plan, *Shaping Our Sustainable Future*, identified four strategic priority areas: our people, impactful research, outstanding academic programming and influential communication and outreach. Our goals and key achievements are summarized below:



Foster a collaborative community of engaged students, staff, faculty and alumni who are proud to be part of our faculty and feel empowered and supported to contribute to our collective vision.

- There has been a renewed spirit of co-operation over the past five years, illustrated by shared planning and offering of courses, as well as increased attendance at meetings and events such as the Dean's Lecture Series, General Assembly and student recruitment events.
- Alumni engagement has reached new heights with regular communications through our Faculty of Environment newsletter, ENVision, and well-attended events in multiple cities and countries – including our 50th birthday reunion weekend attended by over 200 alumni and guests.
- Entrepreneurship@Environment was launched in partnerships with Waterloo's Velocity and St. Paul's University College GreenHouse, and is supported by programming developed by an Associate Dean of Strategic Initiatives and an Entrepreneur in Residence. The initiative has facilitated numerous student awards.
- Student-initiated activities, such as ENVigorate and Ecology Lab workshops, celebrate and engage our diverse community.



Conduct impactful research that transcends disciplinary boundaries in addressing complex environmental and social issues.

- › The faculty has emerged as a national hub for climate resilience and flood mitigation where media, governments and businesses come for expert input.
- › Both the Intact Centre of Climate Adaptation and the Partners for Action initiatives were launched in 2015.
- › What began as our Interdisciplinary Centre on Climate Change became a university research centre in 2018.
- › The University of Waterloo co-led a successful proposal to establish a federally funded institute, The Canadian Institute for Climate Choices in 2019.
- › The faculty increased its Canada Research Chairs from three to seven, and University Research Chairs from one to three.
- › Annual research funding increased from 7 million to 9.9 million dollars over this five-year period.
- › Members of the faculty led major research projects through NSERC, SSHRC and Global Water Futures, and several faculty members won national and international awards and recognitions.



Continue to build our reputation as a national and global leader by offering a range of unique and highly regarded educational programs related to environment and sustainability.

- › The faculty introduced two new graduate programs in 2018, a PhD in Sustainability Management and a graduate diploma in Climate Risk Management.
- › Graduate student enrolment increased by 25 per cent over the five-year period, supported in part by the Dean's Doctoral Initiative that has at its core the principle of independent and open inquiry while providing guaranteed financial support to doctoral students.
- › While undergraduate majors increased only three per cent over this time period, international enrolment more than doubled and total undergraduate course enrolment grew 20 per cent.
- › Selected courses now integrate Indigenous expertise.



Share the story of the faculty to enhance our reputation with varied audiences, extend the impact of our research, and inspire environmental action.

- › We were selected as host of the Canadian chapter of the United Nations Sustainable Development Solutions Network with an official launch in 2018.
- › On campus, the faculty was the impetus for establishing the University's Sustainability Office, which has since led the development and adoption of a Sustainability Policy and Strategy.
- › The faculty continues to live its sustainability values, leasing space in Evolv1, Canada's first multi-tenant, zero-carbon, net positive building, and collaborating with other tenants there to incubate green innovations.
- › The faculty has increasingly engaged with media in order to advance knowledge mobilization, increasing its media presence substantially.

FACULTY OF ENVIRONMENT STRATEGIC PLAN 2020–2025

Our 2020-2025 strategic plan boldly maps to the belief that universities should be at the forefront of finding solutions to society's challenges. Throughout the Faculty of Environment's 50-year history, we have taken a lead in developing understandings of environmental and social change and of designing scientific, technical, behavioural and policy responses that contribute to a better world.

Our 2020-2025 plan will firmly establish Waterloo's Faculty of Environment as Canada's leading integrative faculty/school of environment – a driving force for rigorous research, effective knowledge mobilization, and creative solutions that address the world's biggest environmental and sustainability challenges – by working together with others. The engine of our success includes a broad range of academic degrees and learning-integrated work opportunities, research of both local relevance and global impact, and an ethos of caring – for each other and for the planet that we share.

We will live the values of our University, and champion curiosity, courage, engagement and belonging. Paying particular attention to environmental sustainability, interdisciplinarity, and Indigeneity, we will:

- › Provide campus and community leadership in environmental and sustainability research, education and knowledge mobilization.
- › Deepen our commitment to inter- and trans-disciplinarity in order to enable our researchers and graduates to be national and international leaders in defining and addressing complex problems.
- › Engage in meaningful relationships with Indigenous peoples and integrate their ways of knowing and priorities in our research and teaching.

PHOTO: World-renowned scientist Jacqueline McGlade presents her lecture, *Together, Building Sustainable Communities*, at the TD Walter Bean Lecture in Environment – our signature lecture series.

REGARDLESS OF WHERE WE ARE FROM,
WHERE WE WORK, WE CAN RE-CONNECT,
INNOVATE AND SCALE SOLUTIONS TO
SUPPORT THE TRANSITION TO A
SUSTAINABLE FUTURE – TOGETHER.

**"A SINGLE BRACELET DOES
NOT JINGLE"**



OUR FIVE-YEAR GOALS

By 2025, the Faculty of
Environment will:

GOAL 1

Be Canada's leader in environmental and sustainability education.

GOAL 2

Achieve increased impact through national and global leadership in environmental and sustainability research.

GOAL 3

Demonstrate an ethos of caring in all that we do.





TOGETHER FOR A
SUSTAINABLE FUTURE



GOAL 1

Be Canada's leader in environmental and sustainability education

The Faculty of Environment develops talent and mobilizes knowledge to enable a future that is more sustainable.



Our success in preparing tomorrow's alumni to be leaders in a complex future depends on our academic programming at the undergraduate and graduate levels.

- › A commitment to extend environmental and sustainability education on campus in partnership with others.
- › A commitment to increase our involvement in non-traditional educational activities.

Effective education requires us to discern between those practices that remain effective and those where innovation is needed. The readiness of our students and alumni to succeed as citizens, employees and entrepreneurs requires that education be future-focused.

To achieve this we commit to the following priorities:

- › Ensure our graduates have the necessary leadership, collaborative and technical skills to fully contribute to society and the economy.
- › Expand both experiential learning opportunities and international education, being sensitive to the need for accessible and affordable options.

- › Be a culture that supports educators and celebrates educational excellence.
- › Improve our students' capacity to succeed in entrepreneurial and social enterprise activities.

Our ability to lead in sustainability education depends on an authentic engagement with this vision in our own actions. In responding to the climate emergency and other environmental threats and opportunities, the Faculty of Environment commits to adopt practices that 'green' its own operations and contribute to a campus-wide conversation about transformative action to position Waterloo as a leader in environment and sustainability.

- › Achieve ambitious reductions in the Faculty of Environment's carbon footprint.
- › Provide leadership on University initiatives related to environment and sustainability.



16K+ alumni from **89** Countries

Ranked TOP 5 nationally in Development Studies and Geography (QS 2019)

In 2018, the Faculty introduced **2 NEW** graduate programs

a PhD in Sustainability Management and a graduate diploma in Climate Risk Management

14%

of our courses include field experience

450+ employers

that actively hire Environment students

95.5%

95.5% of undergraduate students found employment upon graduation (2018)



GOAL 2

Achieve increased impact through national and global leadership in environmental and sustainability research

Research impact is the effect that discovery, application and critique have in contributing to society today and in shaping the thinking of tomorrow. Research impact necessarily involves knowledge dissemination, but also knowledge mobilization and the translation of knowledge into practice and policy.

Profound changes are taking place in the post-secondary sector. Inquiry increasingly crosses disciplinary boundaries to address questions of societal importance. Our faculty's success depends on our thoughtful engagement with what it means to work both within and beyond disciplines to address complex environmental and social issues. Profound changes are also taking place in society as the pace of technological change accelerates, environmental concerns reach crisis levels, and demands for justice intensify. These changes provide an imperative to focus our research on the world's most pressing challenges. We will:

- › Be at the forefront of defining and framing emergent environmental and sustainability problems that require an interdisciplinary approach.
- › Enhance inter-faculty research collaborations, especially in areas that align with the University's strategic priorities.

- › Ensure a faculty and research staff complement that supports interdisciplinarity in research and teaching.

Our impact depends on a willingness and readiness to engage beyond our campus, contributing to and leading local, national and international conversations, research projects and other collaborations. We will:

- › Collaborate with external partners in shaping our research agenda and in co-creating and mobilizing knowledge.
- › Develop and implement an internationalization strategy that prioritizes partnerships and participation that increase the impact of our work.
- › Contribute meaningfully to the achievement of the United Nations Sustainable Development Goals, both in Canada and globally.



**Ranked
TOP 5**

in the world for
Climate Change research
(QS 2019)

**Host of the Sustainable Development
Solutions Network (SDSN) Canada**

Its mission; to mobilize action for the United Nations
Sustainable Development Goals across the country

10 research chairs
(gender balanced)

9.9M

Annual research funding
increased from \$7M to \$9.9M
over previous five-year period



**Graduate student
enrolment increased**

25%

over previous five-year period



GOAL 3

Demonstrate an ethos of caring in all that we do

In its 2020-2025 Strategic Plan, the University of Waterloo commits to being, “a people-centred institution committed to genuine care, concern, respect, inclusivity and well-being for all” (refer to the University of Waterloo Strategic Plan 2020-2025 at uwaterloo.ca/strategic-plan). The Faculty of Environment will work in alignment with the whole campus to achieve this goal.

Further, the Faculty of Environment will respond to one another and to societal and environmental challenges in ways that reflect a deep sense of caring for one another and for the planet that we share with other peoples and species. We will:

- › Create, model, and support a culture of wellbeing for students, staff and faculty.
- › Offer varied learning environments to support students with different learning styles and backgrounds.
- › Focus on the student experience.
- › Work with graduate students to create and steward communities of learning.
- › Continually review student-facing roles to ensure excellent academic support.
- › Provide staff with more opportunities for professional growth.
- › Better support research faculty.

In order to be caring of those things that go beyond our campus, we must be engaged on broader societal issues. Accordingly, we will:

- › Thoughtfully and respectfully engage with members of Indigenous communities to forge a path whereby our activities are increasingly aligned with the Calls to Action of the *Truth and Reconciliation Commission* and the United Nations *Declaration on the Rights of Indigenous Peoples*.
- › Increase our faculty’s capacity to offer informed opinion, analysis, and debate on local and global environmental and sustainability policy issues.

\$250,000

spent to build community and research-cluster space for undergraduate and graduate students

Entrepreneurship@Environment

created to support student innovation and entrepreneurship

\$15M

committed to graduate student funding over the past five years through the Dean's Doctoral Initiative, which has at its core the principle of independent and open inquiry while providing guaranteed financial support to doctoral students.

Largest

National Applied Research Hub on flood mitigation and climate adaptation

A PLAN TO UNITE US
AND MAKES US BELIEVE
IN OUR INDIVIDUAL AND
COLLECTIVE POTENTIAL.





OUR PATH FORWARD

SPRING AND FALL TERMS 2018

Several small-group consultations were held with alumni, department/school chairs, staff leaders, associate deans, and student leaders in order to develop a framework for thinking about our achievements over the past five years and our aspirations for the next five years.

Specific steps taken to develop the Faculty plan:

SPRING TERM 2017

A series of open houses were organized for faculty, staff and student leaders (attendance >100). Each open house focused on one of the eight themes in the University's 2013-2018 strategic plan, and began with a short presentation followed by a discussion organized around a set of questions. These sessions were intended to explore how well the faculty has delivered on these eight themes, and how they connect with future priorities.



Beginning in the spring of 2018, the University of Waterloo engaged in a structured and highly consultative strategic planning exercise with the interim period referred to as 'Bridge to 2020,' and the next plan covering 2020-2025. The Faculty of Environment's 2020-2025 Strategic Plan was developed over the same time period, based on stakeholder input.

WINTER 2019

The dean attended a departmental/school meeting for each of the five units, and also conducted staff meetings, in order to share a draft framework for 2020-2025 priorities and to solicit input. The input received was translated into 107 statements of potential goals/objectives/targets; and faculty, staff, and students were asked to provide their feedback. Feedback was received in two ways; through an online survey sent out to all faculty, staff, and students as well as through poster boards in public spaces where priorities were marked with stickers and/or notes added.

SPRING 2019

Further group consultations occurred with academic and administrative units, and associated revisions to the plan.

SPRING 2019

Based on the survey results, five themes and 23 commitments were identified as potential building blocks of the faculty's 2020-2025 plan. These were summarized in a four-page document that was distributed to faculty administrators and staff leaders in Environment. Small-group meetings with subsets of these individuals occurred to help refine content.

AUGUST 2019

A second draft was prepared for distribution to selected external stakeholders, based on the above input and also considering the draft University plan, which was just completed.

JANUARY 2020

The Plan, *Together for a sustainable future*, was adopted at Faculty Council in January 2020.

INTEGRATION WITH THE UWATERLOO STRATEGIC PLAN

The University and Faculty plans were developed concurrently with numerous opportunities for alignment.

- › The Provost's Office established a Strategic Plan Advisory Committee (SPAC), with representatives from each faculty and stakeholder group. This committee regularly provided advice and feedback to guide the development of the 2020-2025 strategic plan.
- › Numerous opportunities also existed for broad-based stakeholder input to the University plan, mainly through a series of open consultations in the fall of 2018. In October, 2018, the Waterloo's Institutional Analysis and Planning department facilitated a 'Bridge to 2020' consultation within the Faculty of Environment.
- › Moving forward, the faculty's plan will be mapped onto the University's plan in order to prioritize and coordinate actions that contribute to the achievement of both.

IMPLEMENTATION

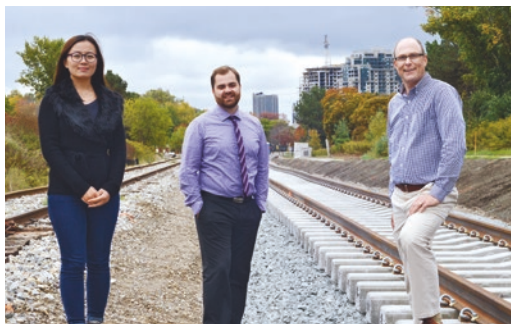
Following the adoption of the Faculty of Environment Strategic Plan, 2020-2025, task forces will be established to develop the implementation of the various key priorities. Composition of each task force will vary to reflect the nature of the initiative. Recommendations will be reviewed through the normal administrative channels. Implementation of recommendations with financial implications will be aligned with the Faculty's budget planning processes.

The resulting implementation plan will be a living document as reflected in the accompanying document, *Implementation of Together for a sustainable future*. In this document, the objectives and pathways to implementation are specified while the specific indicators of success will populate the third column of the tracking document. The faculty's leadership will report annually to Faculty Council on progress.









UNIVERSITY OF
WATERLOO



FACULTY OF ENVIRONMENT

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uwaterloo.ca/environment