

**University of Waterloo
BOARD OF GOVERNORS
Tuesday 27 October 2020**

Meeting
1:30 p.m.
Teams Videoconference

Please convey regrets to Emily Schroeder at eschroeder@uwaterloo.ca.

Time	<u>MEETING</u>	Page	Action
	OPEN SESSION		
1:30	1. Conflict of Interest	Oral	Declaration
	2. Remarks from the Chair	Oral	Information
	3. Agenda/Additional Agenda Items	Oral	Input
1:35	<u>Consent Agenda</u> Motion: To approve or receive for information by consent items 4-8 below.		
	4. Minutes of the 2 June 2020 Meeting	4	Decision
	5. Report of the President		
	a. Promotion to Professor	11	Information
	b. Sabbatical and Administrative Leaves/Administrative Appointments	12	Decision/Information
	c. Recognition and Commendation	20	Information
	6. Report of the Vice-President, Administration & Finance		
	a. Incidental Fee Changes	29	Decision/Information
	7. Reports from Committees		
	a. Building & Properties	30	Information
	b. Executive	33	Information
	c. Finance & Investment	34	Information
	d. Governance	37	Information
	e. Pension & Benefits	38	Information
	8. Report of the Vice-President, Academic & Provost		
	a. Undergraduate/Graduate Admissions Update	39	Information
	<u>Regular Agenda</u>		
1:40	9. Business Arising from the Minutes		Input
1:45	10. Report of the Waterloo Undergraduate Student Association	42	Information

Time	OPEN SESSION	Page	Action
1:55	11. Divestment and Carbon-Neutral Investment Discussion a. James Schlegel, Chair, Finance & Investment Committee b. Olaf Weber, Representative of Faculty and Staff Signatories to Call for Divestment Letter; Truzaar Dordi, Representative of Students, and Fossil Free UW c. Discussion	44	Discussion
2:10	12. Report of the President ¹ a. Strategic Plan 2020-2025 Accountability Update b. President's Update i. Student Mental Health Update [John Hirdes] ii. Climate Action Plan [Mathew Thijssen] iii. Cooperative and Experiential Education Strategic Plan [Norah McRae]	Oral 147 152 155 Distributed Separately	Information Information Information Information Information
	13. Report of the Vice-President, Academic & Provost a. Faculty Name Change – Applied Health Sciences	159 164	Information Decision
	14. Report of the Vice-President, Administration & Finance	169	Information
	15. Report of the Vice-President, Advancement	171	Information
	16. Report of the Vice-President, Research & International	175	Information
	17. Report of the Vice-President, University Relations	179	Information
3:10	BREAK		
3:20	18. Reports from Committees a. Audit & Risk b. Finance & Investment c. Pension & Benefits	184 185 203	Decision/Information Decision Decision
3:35	19. Other Business		Input
3:40	SHORT BREAK – CONNECT TO CONFIDENTIAL MEETING LINK		
	CONFIDENTIAL SESSION		
3:45	20. Conflict of Interest	Oral	Declaration
3:50	<u>Consent Agenda</u> Motion: To approve or receive for information by consent items 21-22 below.		
	21. Minutes of the 2 June 2020 Meeting	9	Decision

Time	CONFIDENTIAL SESSION	Page	Action
	22. Reports from Committees a. Audit & Risk	205	Information
	Regular Agenda		
3:55	23. Business Arising from the Minutes		Input
4:00	24. Report of the President a. Donor List – FY20 Gifts and Pledges \$250,000+	206	Information
4:15	25. Reports from Committees a. Building & Properties	207	Decision
4:20	26. Other Business		Input
	27. Next Meeting: Tuesday 2 February 2021 at 1:30 p.m. (Board Retreat: 11 December 2020)		
	IN-CAMERA SESSION		
4:25	28. Conflict of Interest	Oral	Declaration
4:30	29. Minutes of the 2 June 2020 Meeting	10	Decision
4:35	30. Business Arising from the Minutes		Input
4:40	31. Other Business		Input
4:45	32. Report from the Governance Committee a. President’s Mid-Year Assessment	Oral	Input
4:55	33. Adjournment		

¹ The president’s remarks will be concise during this portion of the agenda to allow time for governors to ask questions about information provided in the agenda materials, and deeper discussion of strategic matters of interest.

KJJ/ees
20 October 2020

Karen Jack
University Secretary

University of Waterloo
BOARD OF GOVERNORS
Minutes of the Tuesday 2 June 2020 Meeting

Present: Nyla Ahmad, Upkar Arora, Mike Ashmore, Peter Barr, Anne Bordeleau, Paul Fieguth, Cindy Forbes (chair), George Freeman, Murray Gamble, Martha George, Tony Giovinazzo, Julia Goyal, Susan Grant, Feridun Hamdullahpur, Russell Hiscock, Karen Jack (secretary), Sheryl Kennedy, Sabrina Khandakar, Ian Milligan, Neil Randall, John Saabas, Max Salman, James Schlegel, Abbie Simpson, Jagdeep Singh Bachher, Jeremy Steffler, Stanley Woo, En-Hui Yang

Guests: Sheila Ager, Christiana Alkiviades, Jean Andrey, Agata Antkiewicz, Suman Armitage, Emma Arppe-Robertson, Sandra Banks, Dipali Batabyal, Kathy Becker, Cathy Bolger, Alison Boyd, Bruce Campbell, Aldo Caputo, Jeff Casello, MaryAnn Chan, Mario Coniglio, Amanda Cook, Adrien Côté, Ingrid Cowan, Richard Culham, Kate Dal Castel, Nike Dattani, Charmaine Dean, David DeVidi, Yufei Du, Rob Esselment, Lawrence Folland, Barbara Forrest, Beth Gallagher, Matthew Grant, Mike Grivicic, Sarah Hadley, Kevin Hare, Candace Harrington, Michael Herz, Michelle Hollis, Lee Hornberger, Dennis Huber, Glenn Ives, Ross Johnston, Andrea Kelman, Jennifer Kieffer, Meagan Lai, Maryam Latifpoor-Keparoutis, Robert Lemieux, Lili Liu, Peter Lowe, Carrie MacKinnon Molson, Nick Manning, Kelly McManus, Norah McRae, Christine McWebb, Bessma Momani, Beth Namachchivaya, Cathy Newell Kelly, Caitlin Old, Leanne Perrault, Judene Pretti, Alice Raynard, Kevin Resch, Chris Read, James Rush, Emily Schroeder, Karl Schuett, Mark Seasons, Daniela Seskar-Hencic, Joanne Shoveller, Andrea Sotak, Gail Spencer, Siobhan Stables, Allan Starr, Kerry Stryker, Sherri Sutherland, Brandon Sweet, Sean Thomas, Susan Tighe, David Timms, Rebecca Wickens, Kate Windsor

Regrets: Dominic Barton, Dave Jaworsky, Karen Redman, Berry Vrbanovic

OPEN SESSION

1. CONFLICT OF INTEREST

Governors were asked to declare any conflicts they may have in relation to the items on the agenda; no conflicts were declared.

2. REMARKS FROM THE CHAIR

Opening Remarks. The chair welcomed the Board to the first meeting of the governance year and invited the secretary to speak to process adaptations due to the meeting being held virtually.

Governors' First Meeting

A number of governors were attending their first meeting or were returning for a second term. The chair acknowledged them as follows: community-at-large representatives: Cindy Forbes, Sheryl Kennedy, and John Saabas; lieutenant governor in council representatives: Nyla Ahmad and Peter Barr; staff representative: Susan Grant; faculty representatives: Paul Fieguth, Ian Milligan, Stanley Woo, and En-Hui Yang; undergraduate student representative: Abbie Simpson; and graduate student representative: Julia Goyal.

3. AGENDA/ADDITIONAL AGENDA ITEMS

The Board heard a motion to approve the agenda as distributed.

Barr and Steffler. Carried unanimously.

Consent Agenda

The Board heard a motion to approve and/or receive for information by consent items 4-10 below.

Arora and Ahmad.

4. MINUTES OF THE 7 APRIL 2020 MEETING

The Board approved the minutes of the meeting as distributed.

5. REPORT OF THE PRESIDENT

Recognition and Commendation. The Board received the report for information.

Sabbatical and Administrative Leaves and Administrative Appointments. The Board heard a motion to approve the sabbatical leaves and changes, and administrative leaves, as presented in the report.

The remaining items in the report were received for information.

6. REPORT OF THE VICE-PRESIDENT, ADMINISTRATION & FINANCE

Incidental Fees. The Board heard a motion to approve incidental fee changes as follows:

Motion 1: To approve the general approach to fee assessment as presented in the report, that incidental fees to be assessed and collected during the fall term 2020 from full-time and part-time undergraduate and graduate students be modified to reflect the combined “online with some in-person” delivery method.

Motion 2: To approve the Waterloo Undergraduate Student Association (WUSA) operating fees as presented in the report.

Motion 3: To approve the compulsory WUSA health fee as presented in the report.

Motion 4: To approve the compulsory WUSA dental fee as presented in the report.

Motion 5: To approve the compulsory WUSA Grand River Transit U-Pass Fee as presented in the report.

Motion 6: To approve the compulsory WUSA Legal Service Plan Fee as presented in the report.

Motion 7: To approve the optional WUSA Student Refugee Program Fee as presented in the report.

Motion 8: To approve the optional WUSA Orientation Fee as presented in the report.

Motion 9: To approve the new, compulsory Student Assistance Program Fee as presented in the report.

Motion 10: To approve the new, voluntary Student Life Endowment Fund Fee as presented in the report.

Motion 11: To approve the optional Imprint Publications Fee as presented in the report.

Motion 12: To approve the optional Engineering Society Fee as presented in the report.

Motion 13: To approve the optional Mathematics Society Fee as presented in the report.

Motion 14: To approve the Graduate Student Association (GSA) Fees as presented in the report.

Motion 15: To approve the compulsory GSA Health Fee as presented in the report.

Motion 16: To approve the compulsory GSA Dental Fee as presented in the report.

Motion 17: To approve the compulsory GSA Grand River Transit U-Pass Fee as presented in the report.

Motion 18: To approve the new, compulsory GSA Legal Service Plan Fee as presented in the report.

Motion 19: To approve the new, optional Council of Graduates in Germanic and Slavic Studies Fee to be assessed and collected from graduate students in Germanic and Slavic Studies as presented in the report.

7. REPORTS FROM COMMITTEES

Finance & Investment. The Board received the report for information.

Pension & Benefits. The Board received the report for information.

8. REPORTS FROM INSTITUTE FOR QUANTUM COMPUTING

Annual Report to the Ministry of Innovation, Science and Economic Development. The Board heard a motion to approve the IQC annual report to ISED as presented in the report.

Corporate Plan 2020-21. The Board heard a motion to approve the IQC corporate plan as presented in the report.

9. REPORT FROM THE OFFICE OF HUMAN RIGHTS, EQUITY AND INCLUSION REGARDING SEXUAL VIOLENCE PREVENTION AND RESPONSE

The Board received the report for information.

10. DEPARTMENT NAME CHANGE – WATERLOO CENTRE FOR THE ADVANCEMENT OF CO-OPERATIVE EDUCATION

The Board heard a motion to approve the following name change: from “Waterloo Centre for the Advancement of Co-operative Education (WatCACE)” to “Work-Learn Institute (WxL).”

In response to a question regarding the incidental fee approvals, governors heard that some are provisional, the University has made a recent change to bring all incidental fees forward at once, and the distinction between University incidental fees and those levied by the student associations and societies. Diana Parry, Associate Vice-President, Human Rights, Equity & Inclusion, and Amanda Cook, Director, Sexual Violence Prevention and Response spoke to work being done with individuals from marginalized communities and groups.

The question was called and the motion carried unanimously.

Regular Agenda

11. BUSINESS ARISING FROM THE MINUTES

There was no business arising.

12. REPORT OF THE PRESIDENT

The president spoke to the recent deaths of former Chancellor Dr. Sylvia Ostry and former President Dr. Douglas Wright. The Board observed a moment of silence in their honour.

The president acknowledged the community’s deep sadness about recent events and spoke to his belief that there is more that we can all do to work against racism and discrimination. He reiterated the message that there is no room in our community for racism and referred governors to his recent statement regarding standing together against racism at Waterloo.

Following an announcement of some recent leadership appointments and awards received by members of the community, the president introduced Norah McRae, Associate Provost, Co-operative and Experiential Education. Dr. McRae spoke about the future of talent, and current challenges and opportunities. Members heard: an update regarding the impact of COVID-19 on co-op student employment; about labour market disruptions; recent survey results which included expressions of concern about the availability of co-op positions; employment rates for the winter and spring terms and what is known about the fall; details regarding the CEE response and adaptations for the future of work.

In discussion: how the University has deployed roughly half of its co-op hires in its pandemic response; that many employers have enabled remote work for co-op positions; ways the University is engaging its alumni with respect to co-op hiring; the “Waterloo Ready” program is considering ways to support students who will be undertaking their first co-op term next winter.

President’s Report. The president provided the Board with a recap of the impact of the global pandemic. He spoke to: insights from recent surveys; what is being done with respect to the return to campus and reopening of facilities; some of the longer term considerations (reimagined strategic plan; greater focus on remote work and remote teaching and learning; finding the right balance for productivity, flexibility, social aspects and costs); what the fall term will look like with respect to instruction and campus facilities. At the president’s request, Registrar Cathy Newell Kelly informed governors about revised convocation plans for the June ceremonies.

In discussion: finding the balance between speed vs perfection; that safety drives all decisions regarding return to campus; ensuring the best quality in online instruction; the role of the Faculties in informing decisions about the fall term; considerations and plans to operate the residences safely; initiatives in the “Waterloo Ready” program to enable and encourage safe social and orientation activities so students may feel a part of the Waterloo community and less isolated.

University Relations Update. Sandra Banks, Vice-President, University Relations provided governors with an update on: federal, provincial and municipal activities; media coverage and social media engagement; adaptations to move to “virtual everywhere”; shifts in focus for marketing; the communications framework. In discussion: ways government is being engaged; the even greater significance of the message “Waterloo is built for change”.

President’s Report. The president informed members about the establishment of the Integrated Coordination and Planning Committee which is responsible for the next stage of pandemic response. Governors heard about priority focus areas, including plans for the fall and the return to campus.

Research Update. Charmaine Dean, Vice-President, Research and International provided governors with: plans regarding the safe opening of research spaces; an overview of COVID-19 related research being undertaken by Waterloo researchers; other research updates, including the good news that University researchers generated \$250M in funding for the year, which is very much in line with last year.

Advancement Update. Joanne Shoveller, Vice-President, Advancement informed governors about: what she’s learned from an environmental scan of the status of philanthropy; the Campaign’s three to six month plans; engagement with CEOs at roundtables and what is being heard; the phases of the Campaign. In discussion: the benefits found in virtual meetings without the need for travel; planned financial targets.

Strategic Plan Update. The president provided members of the Board with an update on the new context for the University’s Strategic Plan. He spoke to: opportunities that have arisen, and a refocus for some goals; what has been accomplished to date; key outcomes and initiatives from the signature

commitments. Members understood that an update about the implementation of the Strategic Plan will be provided to the Board in October.

On behalf of the Board, the chair offered thanks to the president and vice-presidents for the helpful information and updates.

13. REPORT OF THE PENSION & BENEFITS COMMITTEE

The Board heard a motion to approve the filing of the actuarial valuation report as at 1 January 2020 with the Financial Services Regulatory Authority of Ontario (FSRA) and the Canada Revenue Agency (CRA).

Barr and Kennedy. Carried unanimously.

14. CONFLICT OF INTEREST DECLARATION FORM

Governors were asked to complete the form linked to the agenda and available on the Secretariat website, and return it to the Secretariat by 30 June 2020.

15. OTHER BUSINESS

There was no other business.

The Board convened in confidential session.

10 June 2020

Karen Jack
University Secretary

CONFIDENTIAL SESSION

The confidential minutes have been removed.

IN-CAMERA SESSION

The *in-camera* minutes have been removed.

University of Waterloo
BOARD OF GOVERNORS
Report of the President
27 October 2020

FOR INFORMATION

Promotion to Professor

Policy 77 – Tenure and Promotion of Faculty Members, provides that “Promotion to the rank of Professor recognizes a high order of achievement in both scholarship and teaching by tenured Associate Professors, together with satisfactory performance in service. Although evidence of strong teaching performance is required, normally the greatest emphasis is placed on scholarship and achievement within an individual’s discipline. However, in exceptional cases, a tenured Associate Professor may be promoted on the basis of an outstanding teaching record accompanied by a continuing and long-standing record of satisfactory or better scholarship and service.

A continuous program of scholarship with positive peer review by nationally and internationally recognized scholars is essential for promotion to Professor. The candidate’s record is to be judged in comparison with the records of faculty members recently promoted at UW and other universities of comparable standing.

Promotion to Professor is not an assured step in the career of a faculty member, and some will not attain this rank.”

The 2019-20 promotion cycle carried out under Policy 77 has resulted in the following individuals being promoted to professor, effective 1 July 2020.

AUCOIN, Marc – Chemical Engineering
BAAJ, Hassan – Civil and Environmental Engineering
CHENOURI, Shoja – Statistics and Actuarial Science
COSKUN, Altay – Classical Studies
COZZARIN, Brian – Management Sciences
CRAIK, Neil – School of Environment, Enterprise and Development
DAUN, Kyle – Mechanical and Mechatronics Engineering
EDGINTON, Andrea – School of Pharmacy
ENGLISH, Elizabeth – School of Architecture
FIDAN, Baris – Mechanical and Mechatronics Engineering
FISCHMEISTER, Sebastian – Electrical and Computer Engineering
FUKASAWA, Ricardo – Combinatorics and Optimization
HAYES, Geoffrey – History
HOEY, Jesse – Computer Science
INGALLS, Brian – Applied Mathematics
LAMONT, Victoria – English Language and Literature
MACEACHEN, Ellen – School of Public Health and Health Systems
MALHOTRA, Shavin – Conrad School of Entrepreneurship Engineering
MCMURRY, Andrew – English Language and Literature
NILSEN, Elizabeth – Psychology
PATEL, Hiren – Electrical and Computer Engineering
QUADRILATERO, Joe – Kinesiology
SCHOST, Éric – Computer Science
SINGH, Simron – School of Environment, Enterprise and Development
TOLSON, Bryan – Civil and Environmental Engineering
WALBRIDGE, – Scott Civil and Environmental Engineering
WEN, John – Mechanical and Mechatronics Engineering
WETTIG, Shawn – School of Pharmacy
YARUSEVYCH, Serhiy – Mechanical and Mechatronics Engineering

University of Waterloo
BOARD OF GOVERNORS
Report of the President
October 27, 2020

FOR APPROVAL

1. Sabbatical and Administrative Leaves

The University of Waterloo Policy 3 – Sabbatical and Other Leaves for Faculty Members [excerpts below, full text available at: <http://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-3>] sets out the purpose of leaves for faculty members as well as the requirements/responsibilities of faculty who are granted such leave.

The granting of a leave . . . depends on the University's assessment of the value of such leave to the institution as well as to the individual, and on whether teaching and other responsibilities of the applicant can be adequately provided for in her/his absence. A faculty member who is granted a sabbatical or other leave is expected to return to duties in the University for at least one year and upon return will be expected to submit a brief report to the Department Chair regarding scholarly activities while on leave.

The purpose of a sabbatical leave is to contribute to professional development, enabling members to keep abreast of emerging developments in their particular fields and enhancing their effectiveness as teachers, researchers and scholars. Such leaves also help to prevent the development of closed or parochial environments by making it possible for faculty members to travel to differing locales where special research equipment may be available or specific discipline advances have been accomplished. Sabbaticals provide an opportunity for intellectual growth and enrichment as well as for scholarly renewal and reassessment.

. . . the granting of sabbatical leave is contingent upon the faculty member's department being able to make the necessary arrangements to accommodate such an absence, and also upon the financial resources of the University in any given year. Should problems arise in any of the above, it may be necessary to postpone individual requests until such time as all the conditions can be satisfied.

• **Sabbatical Leaves**

Acheson, Katherine, English Language and Literature, January 1, 2022 to December 31, 2022 at 100% salary

I am editing a section of the Palgrave Encyclopedia of Early Modern Women's Writing for which I have commissioned 23 essays. I will work with the authors to prepare their work for publication, and research and write my own essays. When complete, the Encyclopedia will include over 350 different entries in 20 thematic and historical areas, totalling 1 to 1.5 million words

Beesley, Philip, Architecture, January 1, 2021 to June 30, 2021 at 85% salary

Concentrated development of Living Architecture Systems Partnership research program including test-bed presentation at Venice Biennale for Architecture accompanied by interdisciplinary technical innovations in distributed responsive controls, lightweight mesh-based tectonics, and renewed theoretical reviews of Organicist and related cultural context for emerging responsive architecture.

Blit, Joel, Economics, January 1, 2021 to June 30, 2021 at 85% salary

I plan to spend my sabbatical as a visiting professor at the Universidad de la Republica in Uruguay, studying the impact of intellectual property rights on a small open developing economy. Should this not

Sabbatical and Administrative Leaves – October 27, 2020

be possible due to COVID-19, I will likely remain in Waterloo, upgrade my python and machine learning skills, and work on my six ongoing research projects.

Bookbinder, James, Management Sciences, November 1, 2020 to April 30, 2021 at 85% salary
Most supply chains involve several countries. Where to locate a factory or distribution centre? Where should shipments to/from there be consolidated? Canada belongs to the new NAFTA (USMCA) and CPTPP (Comprehensive Progressive Trans Pacific Partnership). An optimization model will be developed to study the above issues, and investigate whether multiple free trade agreements create additional opportunities for a Canadian company.

Burch, Sarah, Geography and Environmental Management, January 1, 2021 to June 30, 2021 at 85% salary
The governance of sustainability transitions is a complex, emergent, and multi-faceted phenomenon that unfolds at multiple scales. I will focus on processing data emerging from the SSHRC-funded TRANSFORM project, which focuses on small business and civil society participation in sustainability transitions around the globe.

Canizares, Claudio, Electrical and Computer Engineering, January 1, 2021 to June 30, 2021 at 100% salary
I have been invited as a Visiting Professor in the Department of Energy of the Politecnico di Milano (Polimi), Italy, where I will pursue collaborative research with Polimi colleagues in the very relevant and timely topics of AI and Machine Learning applications in power systems, and teach a graduate course entitled “Stability and Control of Nonlinear Energy Systems.”

Clarke, Amelia, Environment, Enterprise and Development, January 1, 2021 to August 31, 2021 at 100% salary
I will focus on disseminating research on sustainable cities, on local climate mitigation pathways and governance for reaching carbon neutrality by 2050, and on youth and innovation.

Clary-Lemon, Jennifer, English Language and Literature, January 1, 2021 to June 30, 2021 at 85% salary
I will compose a scholarly monograph on the Rhetoric of Species at Risk, based on site-based field research on two endangered species (the barn swallow and chimney swift), and the human-made structural landscape mitigations legislated by the Species at Risk Act (SARA). It considers to what degree SARA-based infrastructural mitigations can be seen as persuasive nonhuman arguments.

Croiset, Eric, Chemical Engineering, January 1, 2021 to December 31, 2021 at 100% salary
I will reinvigorate my research by writing several overdue papers, catching up on the latest advancements in my fields of research (CO₂ utilization, hydrogen production, SOFC, SOEC), writing proposals, and attending conferences. I will also overhaul my Chemical Reaction Engineering graduate course by broadening its scope and incorporating more modern applications and simulations.

Denison, Stephanie, Psychology, January 1, 2021 to June 30, 2021 at 85% salary
I plan to write journal articles with my graduate students on statistical learning, judgment and decision making and probabilistic inference in infants and young children. I also plan to spend time working on a collaborative grant application on learning in early childhood for the National Science Foundation and Spencer Foundation (with collaborators at US institutions).

Dubeau, Catherine, French Studies, January 1, 2021 to June 30, 2021 at 85% salary

Sabbatical and Administrative Leaves – October 27, 2020

*I will continue working toward the completion of my critical edition of *Mélanges and Nouveaux mélanges* by Suzanne Necker (5 volumes, 1798-1801) as well as pursuing a new project in literary creation involving the writing of a novel in French, to be submitted to Québec publishers.*

Edwards, Dave, Pharmacy, January 1, 2021 to June 30, 2021; January 1, 2022 to June 30, 2022; and July 1, 2022 to March 31, 2023 at 100% salary

I will explore opportunities for future research in a number of areas including pharmacokinetics and drug metabolism, pharmacoepidemiology, educational accreditation, and health professional workforce planning. In addition, I hope to enhance my teaching skills by attending workshops and reviewing pedagogical literature related to teaching in my field.

Gorbunov, Sergey, Computer Science, January 1, 2021 to June 30, 2021 at 100% salary

I will accelerate research in blockchain and distributed systems technologies.

Hall, Heather, Environment, Enterprise and Development, January 1, 2021 to June 30, 2021 at 100% salary

I will focus on my SSHRC and ERA funded research project exploring the impacts of new technologies in the mining sector on the future of work and economic development in the Yukon, British Columbia, Northern Ontario, and Newfoundland and Labrador. I will also work on my OMAFRA-funded project exploring the impacts of new technologies in the agri-food sector in Southern Ontario.

Hancock, Mark, Management Sciences, May 1, 2021 to October 31, 2021 at 100% salary

I will investigate interactive technology in small spaces (e.g., people living in vans, minimalist living, etc.) and collaborate on a variety of other research projects as a visiting researcher at Simon Fraser University.

Hofert, Marius, Statistics and Actuarial Science, March 1, 2021 to August 31, 2021 at 85% salary

My research fields are 1) Computational Statistics and Data Science 2) Copula Modeling and 3) Quantitative Risk Management. I plan to work on the interplay of these three areas of research, in particular on neural networks for copula modeling with applications to QRM.

Huissoon, Jan, Mechanical and Mechatronics Engineering, January 1, 2021 to December 31, 2021 and May 1, 2022 to July 31, 2022 at 100% salary

I plan to work on a textbook for a senior undergraduate course in Mechatronic Design. I also plan to develop a patent I filed last year for an assistive mobility device. I hope to spend a term at Trinity College Dublin and at the Technical University Eindhoven, COVID-19 travel restrictions permitting.

Jha, Ranjini, Accounting and Finance, January 1, 2021 to June 30, 2021 at 100% salary

I will work with my co-authors on a project that explores the effect of additions and deletions of stocks to equity indices on the underlying credit risk of firms from the perspective of the bond and credit default swap markets.

Keleta-Mae, Naila, Communication Arts, January 1, 2021 to June 30, 2021 at 100% salary

*My research areas of expertise are race, gender and performance; my current research project is entitled *Black And Free* and its objective is to examine what Black expressive cultures in North America and the Caribbean reveal blackness and freedom in the 21st century.*

Kirton, Douglas, Fine Arts, January 1, 2021 to December 31, 2021 at 100% salary

I will complete an on-going (to date) series of large-scale landscape paintings toward a solo exhibition at the Michael Gibson Gallery (London, Ontario), tentatively scheduled for mid 2021. This work will be a

continuation of thematic concerns addressed in the work I showed there in my 2016 solo exhibition, as well as in my 2015 solo exhibition at the Cambridge Galleries (Preston, Ontario).

Kofman, Johnathan, Systems Design, May 1, 2021 to April 30, 2022 at 100% salary

I will spend time on graduate student supervision, conducting research in assistive technology, robotics systems, and 3D imaging, preparing grant applications, and publishing research in refereed journals and conferences. I will also develop collaborative relationships with potential academic and industry partners toward new collaborative research projects and grant applications in assistive technology, robotic systems, and 3D imaging.

Lamont, Victoria, English Language and Literature, January 1, 2021 to June 30, 2021 at 85% salary

I will complete a biography of popular western writer B.M. (Bertha Muzzy) Bower (1870-1940), who was a household name in the early 20th century, although few knew she was a woman. She has been forgotten largely because her publisher kept her gender a secret. I have drafted five of six chapters. I will complete the final chapter and prepare the manuscript for publication.

Lepage, Élise, French Studies, January 1, 2021 to June 30, 2021 at 100% salary

My main objective is to complete a book manuscript based on my IDG SSHRC project “du pays au paysage. La poésie Québécoise en perspective depuis 1950” (2016-2019). This monograph is intended to be an important contribution to Québec studies and to the theory of landscape (environment, community, and aesthetic). My second objective is to start a collaborative project with peer researchers on empathy.

Matsen, Mark, Chemical Engineering and Physics, January 1, 2022 to December 31, 2022 at 85% salary

I will promote the development of a new field-theoretic simulation method for polymeric molecules. During this time, I will create an open-source package for its application and will visit a number of relevant researchers in the UK, Germany and the USA.

Michailovich, Oleg, Electrical and Computer Engineering, November 1, 2020 to April 30, 2021 at 100% salary

My main objective is to facilitate the ongoing collaboration between the research group of the applicant and the research group led by Professor Alex Bronstein at the Department of Computer Sciences at the Technion - Israel Institute of Technology (IIT).

Nepal, Sanjay, Geography and Environmental Management, January 1, 2021 to June 30, 2021 at 85% salary

My research is focused on human-wildlife conflicts in high mountain protected areas, and on natural disasters and social/cultural capital in tourism destination communities. I will develop data collection instruments and conduct preliminary fieldwork in Nepal's high mountain parks.

Nica, Alexandru, Pure Mathematics, January 1, 2021 to December 31, 2021 at 85% salary

I will continue my research in the area of specialisation, free probability. Due to its connection to the study of random matrices, free probability has recently developed an applied side. I will start working on some applied free probability questions, inspired by research literature on deep neural networks.

Pal, Rajinder, Chemical Engineering, January 1, 2021 to December 31, 2021 at 100% salary

My research deals with rheology, fluid dynamics and thermodynamics of dispersed composite materials (emulsions, suspensions, and foams). I will write several "state-of-the-art" review articles. I will also diversify my research to explore novel emerging composite materials such as Pickering emulsions. I also intend to prepare the second edition of my undergraduate textbook on separations incorporating additional topics.

Sabbatical and Administrative Leaves – October 27, 2020

Peers, Doug, History, January 1, 2021 to December 31, 2021 at 100% salary

I will complete one manuscript on warfare and the making of modern South Asia; another monograph on race, class, and military law in colonial India; and start a new project on the history and historiography of the siege of Lucknow.

Poupart, Pascal, Computer Science, January 1, 2021 to June 30, 2021 at 85% salary

My main goals are to advance research in five projects (automated fact checking for fake news detection, automated sports analytics for hockey and soccer, automated professional editing, adaptive conversational agents and object-oriented reinforcement learning) in collaboration with four industrial partners (SportLogiq, Scribendi, Huawei and Microsoft).

Saul, Jennifer, Philosophy, January 1, 2021 to June 30, 2021 at 85% salary

My research is in social and political philosophy of language. I will be working on several papers and a book manuscript, all related to understanding the ways in which racist, sexist and transphobic discourse functions in political speech.

Smale, Bryan, Recreation and Leisure Studies, January 1, 2021 to June 30, 2021 at 100% salary

I will focus on several research and knowledge mobilisation projects I am leading as Director of the Canadian Index of Wellbeing. Upcoming work includes a policy workshop supporting the CIW's national report in 2021, along with ongoing partnerships in Nova Scotia, Yukon, British Columbia, Oxford County, and Perth/Huron Counties, and with the Vanier Institute, Ontario Trillium Foundation, and UNICEF Canada.

Stanberry, Andre, Optometry and Vision Science, July 1, 2021 to December 31, 2021 at 100% salary

My research is in the assessment of access to eye care and the development of innovative clinics aimed at addressing eye care access in rural and urban communities. I plan to develop strategies to enhance the student and patient experiences at the University of Waterloo Optometry Clinics.

Swanson, Heidi, Biology, January 1, 2021 to December 31, 2021 at 100% salary

I will be expanding my research program to include studies of fish and fisheries in the Ontario Great Lakes, and the Far North of Ontario. I will also build on existing relationships with community and government stakeholders to further the efficiency and extent of community-based monitoring programs in Nunavut, Yukon, and Northwest Territories.

van Pelt, Robert Jan, Architecture, January 1, 2021 to December 31, 2021 at 85% salary

This sabbatical leave will make it possible to write my book, based on SSHRC-sponsored research, that traces the history of the prefabricated barrack-hut.

Wood, Joanne, Psychology, July 1, 2021 to December 31, 2021 at 85% salary

My research focuses on how two personality traits—agreeableness and self-esteem—affect romantic relationships. My graduate students and I are examining how these traits predict: (1) negative self-disclosures (e.g., complaining); (2) negative reciprocity - escalating cycles of anger and hostility between partners; and (3) relationship quality. We will analyze data we have collected already, write articles for publication, and design new data collection.

Yin, Shunde, Civil and Environmental Engineering, March 1, 2021 to August 31, 2021 at 100% salary

The world faces challenges when making transition from traditional energy resources to renewable energy resources such as geothermal energy. I will be developing testing and simulation techniques to help better understand the coupled thermo-hydro-mechanical mechanisms in related activities and investigate the solutions. I will be collaborating with researchers in Canada, USA and China.

- **Sabbatical Changes**

Carvalho, Emanuel, Economics, July 1, 2019 to December 31, 2019 and July 1, 2020 to December 31, 2021 at 100% salary changed to July 1, 2019 to December 31, 2019 and January 1, 2021 to June 30, 2022 at 100% salary

I will continue to work in the area of local development with a focus on a) measuring the performance of sectors/industries at the local level; b) assessing the development prospects of communities varying in size and economic structure according to various policy prescriptions and c) focus on the socioeconomic development issues of smaller rural and indigenous communities.

Duncan, Robin, Kinesiology, January 1, 2021 to December 31, 2021 at 85% salary changed to September 1, 2021 to August 31, 2022 at 85% salary

The Duncan Lab has recently discovered a potential new treatment for the rare mitochondrial disorder Barth Syndrome, and has found a new mechanism to explain the association between obesity, inflammation and diabetes. Additional dedicated time for research will be used to publish related findings, and to build academic and industrial collaborations to support knowledge translation in these areas.

Fukasawa, Ricardo, Combinatorics and Optimization, September 1, 2020 to August 31, 2021 at 98.2% salary changed to September 1, 2021 to August 31, 2022 at 100% salary

I intend to work on developing research on routing problems, particularly under uncertainty. One of my goals is to visit a research group in Bordeaux that has the current best code to solve deterministic routing problems and to work in collaboration to extend such framework to problems considering uncertainty. There will be need to investigate algorithmic and theoretical issues that are relevant to this topic and the expectation is that it will lead to several publications in international journals and the establishment of new research partnerships.

Giangregorio, Lora, Kinesiology, September 1, 2020 to August 31, 2021 at 93.3% salary changed to January 1, 2021 to December 31, 2021 at 96.1% salary

My research aims to enhance physical activity participation and reduce fracture risk in older adults. I will write a) manuscripts from SPOR/CIHR-funded multicentre feasibility trial of an exercise and nutrition intervention in older adults; next phase grant writing and b) a monograph. I will finalize a) Canada's Physical Activity Guidelines; and b) Osteoporosis Canada guidelines. I will launch a CIHR-funded multicentre trial project.

Lhoták, Ondřej, Computer Science, September 1, 2020 to August 31, 2021 changed to September 1, 2021 to August 31, 2022 at 85% salary

I will further my research on the theory and implementation of program analyses and type systems for the Scala programming language. I will visit the École polytechnique fédérale de Lausanne (EPFL) to strengthen and extend my existing collaboration with the research group of Professor Martin Odersky, where Scala originates.

Nazar, Linda, Chemistry, September 1, 2020 to August 31, 2021 changed to May 1, 2021 to April 30, 2022 at 100% salary

I will be devoted to greatly expanding my research in solid state batteries/materials electrochemistry and furthering knowledge in new areas (interface chemistry, synchrotron methods) by spending time in research labs, national labs and company labs worldwide. This will enhance my international networking and enhance the possibility of my acquiring additional research funding.

Sheppard, Lola, Architecture, September 1, 2020 to August 31, 2021 changed to January 1, 2021 to December 31, 2021 at 100% salary

Sabbatical and Administrative Leaves – October 27, 2020

I plan to work on a manuscript on architecture in Newfoundland, emerging out of my SSHRC Partnership Development grant entitled “Renewing Newfoundland Outports”. I have submitted a SSHRC Insight grant to examine housing in Nunavut which if successful would consume a lot of research time and travel to the North. I am also looking into spending one to two months in Iqaluit as part of my research.

Simon, Leonardo, Chemical Engineering, September 1, 2020 to February 28, 2021 changed to September 1, 2021 to February 28, 2022 at 100% salary

I will do research in the areas of polymer science and engineering, nanocomposites, sustainable materials and bioproducts for applications in automotive, packaging, 3d-printing and advanced manufacturing, as well as aspects of knowledge transfer and the role of university in innovation and entrepreneurship. I will also dedicate my time to further improve a graduate course named Nanocomposites. Time will be spent on experimental and theoretical aspects of my research, on the supervision of graduate students, networking with research laboratories in Canada and abroad, and research interactions with the industrial sector.

Voorhees, Gerald, Communication Arts, September 1, 2020 to February 28, 2021 changed to September 1, 2021 to February 28, 2022 at 85% salary

This leave will be instrumental to the completion and publication of a monograph on Lacanian psychoanalysis as a method for understanding the textual formation of digital games and how gameplay is meaningful to players situated in game cultures.

- **Sabbatical Cancellations**

Dea, Shannon, Philosophy, September 1, 2020 to August 31, 2021 at 85% salary

Feng, Ben, Statistics and Actuarial Science, September 1, 2020 to February 28, 2021 at 100% salary

Lank, Edward, Computer Science, November 1, 2020 to April 30, 2021 at 85% salary

Orchard, Jeffrey, Computer Science, September 1, 2020 to August 31, 2021 at 100% salary

- **Administrative Leaves**

Huissoon, Jan, Mechanical and Mechatronics Engineering, January 1, 2022 to April 30, 2022 at 100% salary

I plan to work on a textbook for a senior undergraduate course in Mechatronic Design. I also plan to develop a patent I filed last year for an assistive mobility device. I hope to spend a term at Trinity College Dublin and at the Technical University Eindhoven, COVID-19 travel restrictions permitting

FOR INFORMATION

2. Administrative Appointments

Aucoin, Marc, appointment as Interim Chair, Chemical Engineering, September 1, 2020 to June 30, 2021

Carvalho, Emanuel, re-appointment as Acting Director, Stratford School of Interaction Design and Business, July 1, 2020 to December 31, 2020

Fieguth, Paul, appointment as Associate Dean, Outreach, Faculty of Engineering, September 1, 2020 to December 31, 2020

Sabbatical and Administrative Leaves – October 27, 2020

Hare, Kevin, appointment as Associate Dean, Operations and Academic, Faculty of Mathematics, July 1, 2020 to December 31, 2021

Leoni, Monica, appointment as Interim Chair, Fine Arts, Faculty of Arts, July 1, 2020 to June 30, 2021

Nilsen, Elizabeth, appointment as Interim Assistant Vice-President, Graduate Studies and Postdoctoral Affairs, July 1, 2020 to December 31, 2020

Wandel, Johanna, appointment as Associate Dean, Strategic Initiatives, Faculty of Environment, September 1, 2020 to August 31, 2022

Woo, Stanley, re-appointment as Director and Associate Dean, Optometry and Vision Science, Faculty of Science, July 1, 2021 to June 30, 2025

- **Administrative Appointment Changes**

Acheson, Katherine, appointment as Associate Dean, Undergraduate Programs, Faculty of Arts, July 1, 2019 to June 30, 2022 changed to July 1, 2019 to December 31, 2021

Janes, Craig, appointment as Director, School of Public Health and Health Systems, Faculty of Applied Health Sciences, July 1, 2018 to June 30, 2022 changed to July 1, 2018 to August 31, 2020

- **Administrative Appointment Cancellations**

Tingley, Jane, appointment as Acting Director, Stratford School of Interaction Design and Business, July 1, 2020 to December 31, 2020

Feridun Hamdullahpur
President and Vice-Chancellor

University of Waterloo
BOARD OF GOVERNORS
Report of the President
27 October 2020

FOR INFORMATION

Recognition and Commendation

Waterloo creativity and strategic thinking were on display as the Canadian Council for the Advancement of Education (CCAЕ) celebrated its **2020 Prix d'Excellence Awards**. The awards recognize top achievements in alumni affairs, public affairs, communications, recruitment, marketing, fundraising and other initiatives that support the advancement of post-secondary institutions. Waterloo received four awards at last week's virtual ceremonies:

- **University Relations** won bronze for Best Website with [Waterloo — Connecting imagination with impact](#).
- **University Relations'** promotions for the Waterloo Innovation Summit won silver for Best Advertisement or Poster.
- The **Office of Advancement's** ugly sweater year-end appeal won silver for Best Annual Giving Initiative.
- The **Office of Advancement's** 2018-19 Report on Giving won gold for Best Report to Donors.

(adapted from the *Daily Bulletin*, 28 May 2020)

Charmaine Dean, vice-president, research and international and professor in Waterloo's Department of Statistics and Actuarial Science has been named **Fellow of the Institute of Mathematical Statistics (IMS)**. Professor Dean is one of 35 nominees selected for the Fellowship in 2020. Each nominee for IMS Fellow is assessed by a committee of their peers for the award. Professor Dean received the award for "her scientifically important contributions to the analysis of count data, disease mapping, spatio-temporal data and more; for her outstanding leadership to the statistical profession, her record of mentorship and for her enormous work in keeping statistics visible at the center of science."

"Professor Dean has provided exceptional leadership to statistical science in Canada and internationally over many years," says Professor Stefan Steiner, chair of the Department of Statistics and Actuarial Science. "This includes serving as the President of the Statistical Society of Canada and the International Biometrics Society (Western North American Region) as well as on numerous grant selection committees."

Established in 1935, the Institute of Mathematical Statistics is a member organization that fosters the development and dissemination of the theory and applications of statistics and probability. The IMS has 3,500 active members throughout the world. Approximately 12 per cent of the current IMS membership has earned the status of fellowship.

(adapted from the *Daily Bulletin*, 29 May 2020)

Marie-Claire Cordonier-Segger is a professor at the School of Environment, Enterprise and Development (SEED), and has received the **International Justice Award**, which honours the legacy of

His Excellency Judge CG Weeramantry, Vice-President of the International Court of Justice and recipient of the UNESCO Prize for Peace and Education. The award was presented by the Weeramantry family on May 15, 2020, during the online global symposium on Human Rights, the Sustainable Development Goals and the Law which engaged over 1,404 registrants from over 101 countries, and was hosted by McGill University Faculty of Law Centre for Human Rights and Legal Pluralism (CHRLP), the University of Montreal Faculty of Law, the Balsillie School of International Affairs Fulbright Chair in Global Governance, the University of Cambridge Centre for Environment, Energy and Natural Resources Governance (CEENRG), the Center for International Sustainable Development Law (CISDL), and other partners. Cordonier-Segger is recognized for her achievements in fields of sustainable development and international law. She was awarded the 2020 International Justice Award for her outstanding legal scholarship and teaching, and for her leadership of international foundations, councils and networks including the Centre for International Sustainable Development Law (CISDL), the Climate Law and Governance Initiative with the United Nations Framework Convention on Climate Change, the Biodiversity Law and Governance Initiative with the Convention on Biological Diversity and UN-Environment and as a senior advisor of the Interdisciplinary Centre on Climate Change. "Her leadership on sustainability and climate change law and governance is a gift to Canada and the world," said Jean Andrey, dean of the Faculty of Environment.

(adapted from the *Daily Bulletin*, 3 June 2020)

Two students received one of Canada's highest honours in academia: the **Governor General's Gold Medal**. For highest standing in a doctoral program, Psychology PhD student **Harrison Oakes** (MA '16) with the Faculty of Arts is recognized for his accomplishments in the research on social environments that stigmatize concealable identities. Former master's student **Joanne Marie Fitzgibbons** (MES '19) with the Faculty of Environment is being celebrated for her explorations in the process and politics of planning for urban resilience. Created in 1873 by Canada's third Governor General Lord Dufferin, the Governor General's Gold Medal is an award given out annually to students from different institutions who achieve the highest level of academic scholarship for their cohort at their institution.

Oakes is recognized for his interdisciplinary research on identity suspicion, which highlights that social environments that stigmatize concealable identities (e.g., mental illness, being gay) oppress both people with the stigmatized identity and people with the contrasting non-stigmatized identity. For example, Oakes' findings have demonstrated that in homophobic environments, people suspect even straight-identifying students with stereotypically straight interests of hiding a stigmatized sexual identity. As a result, students in these environments are expected to conceal behaviours and interests associated with the stigmatized identity to avoid having their identity questioned by their peers. Oakes has a broad range of research experience, spanning work in identity perception, moral psychology, reasoning about social conflicts and identity expression on dating apps. Much of his research has been published in leading journals, including Proceedings of the National Academy of Sciences. Oakes has also received multiple awards for his scholarly work, including the prestigious Vanier Canada Graduate Scholarship.

Having graduated with a Master of Environmental Studies (Planning) in fall 2019, Fitzgibbons' list of accomplishments continues to grow. Her Master's thesis explored how urban planning for resilient and sustainable cities can be more equitable and just. Fitzgibbons' findings have led to the conclusion that urban planners can build resilience in a way that is equitable and inclusive, when city planners deliberately consider issues of redistribution and recognition, as well as participate during both strategic development and implementation stages.

(adapted from the *Daily Bulletin*, 12 June 2020)

The **Council for Advancement of Education (CASE)** announced three strong wins for Waterloo projects. This is an annual competition with hundreds of submissions from universities and colleges around the world. Congratulations to:

- **Faculty of Environment undergraduate recruitment** for winning **silver** in Best Design|Speciality Pieces for Living Our Values: Sustainable Swag from Waterloo's Faculty of Environment
- **University Relations** for winning **bronze** in Video|General Information Video – Short for the [Beyond Purpose video](#) featuring alumnus Richard Yim (MBET '17)
- **University Relations** for winning **gold** in Video|News and Research Videos for the [Beyond Prediction – Polygone: We're drinking our clothes video](#) featuring alumnus Lauren Smith (MES '17)

Additionally, another Waterloo project was recognized by CASE in the **2020 District II Accolades**. A team of alumni, students and groups across campus in Videos Promoting Intercultural Understanding for the [I am African and I am Caribbean videos](#).

(adapted from the *Daily Bulletin*, 12 June 2020)

Waterloo Professor **Imre Szeman** is part of a group of top researchers from the humanities and social sciences involved in the **International Panel on Behavior Change (IPBC)** association. The association, launched at the beginning of June, aims to develop a multidisciplinary scientific behavioural research program that will address current and predicted global societal and environmental crises, including climate change. The IPBC originated from an initiative launched by the Institute of Environmental Medicine (Paris) and the International Society of Behavioral Medicine. The IPBC, which is comprised of a federation of national societies, emerged out of meetings hosted by the United Nations Environment Programme in Paris (2019 and 2020). Following the example of the Intergovernmental Panel on Climate Change (IPCC), this group intends to publish in-depth reports presenting multidisciplinary, state of the art behavioural indicators, drivers and obstacles to societal, economic and environmental change and adaptation, as well as punctual reports on specific themes. An expert in environmental communication, Szeman will lead the amalgamation of relevant studies in communications about climate mitigation. Szeman's role will support the inclusion of a broader field of scholarship on climate change, looking specifically at the effectiveness of communication strategies on climate change. Szeman is also on the IPBC media committee, responsible for communicating about the IPBC across Canada and the U.S, and sits on the board. Waterloo's Interdisciplinary Centre on Climate Change (IC³) is the IPBC's institutional host in Canada.

(adapted from the *Daily Bulletin*, 23 June 2020)

Thomas Brzustowski, a former member of the Faculty of Engineering and **Provost Emeritus**, passed away on Friday, June 19, 2020. Born in Warsaw, Poland in 1937, Brzustowski came to Canada in 1948. Brzustowski graduated with a BAsC in Engineering Physics from the University of Toronto in 1958, and a Master's and PhD in Aeronautical Engineering from Princeton in 1960 and 1963, respectively. His research areas included thermodynamics and combustion, rocket propulsion, celestial mechanics, and spectroscopy. Brzustowski joined Mechanical Engineering in September 1962 as an assistant professor, becoming a full professor in September 1966. He served as chair of Mechanical Engineering from 1967 to 1970, and as associate dean, graduate studies from 1971 to 1974. Brzustowski served on a number of key committees and governance bodies at the University, including the committee that drafted the University of Waterloo Act in 1972. In 1975 he was appointed vice-president, academic. During this

time, he also worked to established the University's Distinguished Teacher Awards. He was reappointed to a second term as vice-president, academic in 1980, and a truncated three-year term (at his request) in 1985. In 1986, Brzustowski led the committee that produced the University's "Fourth Decade Report," the first of three "decade plans" that were the forerunners to today's Strategic Plan. Even as the University's top academic official, Brzustowski carried on his teaching and research, and gave undergraduates top priority for appointments with him. In June 1987, Brzustowski's portfolio was expanded to include new duties as the University's first provost, in effect becoming the University's chief operating officer as well as its senior academic administrator.

Not long after receiving the provostial title, Brzustowski departed from Waterloo to serve as deputy minister in the Government of Ontario from 1987 to 1995, first in the Ministry of Colleges and Universities and later on the deputy of the Premier's Council on Economic Renewal in 1991. At the Ministry of Colleges and Universities, Brzustowski succeeded Alan Adlington, who had previously served as Waterloo vice-president, academic from 1961 to 1970. In doing so, Brzustowski joined an exclusive club of former senior University of Waterloo administrators who had transitioned to the public service, including Al Adlington and Douglas Wright as deputy ministers and former Waterloo president Burt Matthews, who served as chair of the Ontario Council on University Affairs from 1982 to 1984.

He was appointed president of the Natural Sciences and Engineering Research Council (NSERC) in October 1995, and reappointed in 2000, retiring in 2005. Brzustowski was the second former top Waterloo administrator to head a major federal scientific agency, after Arthur Carty. After his retirement from NSERC, Brzustowski returned to the University of Waterloo as a senior advisor to the Institute for Quantum Computing (IQC) for a three-year term. He played a unique role in advancing the Institute by establishing linkages with industry and governments as well as national and international research organizations and individuals. Following his term as advisor, he continued to serve as a member and Chair of IQC's board of directors.

Brzustowski held honorary doctorates from institutions including Alberta, Concordia, école Polytechnique de Montréal, Guelph, McMaster, Ottawa, Royal Military College of Canada, Ryerson, and Waterloo, and received the Engineering Alumni Medal from the University of Toronto. He was an Officer of the Order of Canada and a fellow of the Canadian Academy of Engineering, the Engineering Institute of Canada and of the Royal Society of Canada. He won the Angus Medal of the Canadian Society for Mechanical Engineering in 1976, 1978, and 1982. In 2006 he received the Ontario Professional Engineering Association's Gold Medal for making "significant and lasting contributions to research and development in Canadian engineering."

(adapted from the *Daily Bulletin*, 25 June 2020)

On February 3 and March 13, 2020, Graduate Studies and Postdoctoral Affairs hosted the first ever **virtual 3MT (Three-Minute Thesis) competition**. A panel of judges, and popular vote, chose the following winners:

- **2020 First place (\$1,000): Jasdeep Multani**, MArch candidate, School of Architecture, "Designing Classrooms of the Future: Incorporating Sensory Cognizant Design Strategies." Jasdeep will represent University of Waterloo at **the Ontario Three Minute Thesis (3MT) Provincial Competition** to be hosted by University of Windsor.
- **2020 Second place (\$500): Yara Mohiar**, MSc candidate, School of Optometry and Vision Science, "The Pressures of Space Exploration."
- **2020 Third place (\$250): Robert Bennett**, MASc candidate, Electrical and Computer Engineering, "Simulating the Technology of Tomorrow."

- **2020 People's Choice winner (\$250): Sarena Daljeet**, MA candidate, Psychology, “How Do You Feel About That?”

(adapted from the *Daily Bulletin*, 8 July 2020)

Eight Waterloo doctoral students are recipients of the prestigious **2020 Vanier Canada Graduate Scholarships (Vanier CGS)**. Vanier Scholars demonstrate leadership skills and a high standard of scholarly achievement in graduate studies in the social sciences and humanities, natural sciences and/or engineering and health.

Waterloo’s eight Vanier recipients are:

- **Finnian Gray**, a PhD student in Physics and Astronomy
- **Christian Ieritano**, a PhD student in Chemistry
- **Janet Jones**, a PhD student in Philosophy
- **Asif Abdullah Khan**, a PhD student in Electrical and Computer Engineering
- **Serena McDiarmid**, a PhD student in Psychology
- **Justin Muffit**, a PhD student in Geography and Environmental Management
- **Lauren Smith**, a PhD student in the School of Environment, Resources and Sustainability
- **Spencer Weinstein**, a PhD student in Biology

(adapted from the *Daily Bulletin*, 9 July 2020)

A Waterloo lecturer has won the Green Communities Canada Outstanding Board Member Award for his work at Reep Green Solutions. Michael Wood, continuing lecturer and associate director of undergraduate studies in the School of Environment, Enterprise and Development (SEED) “has shown exceptional leadership in guiding the organization through both calm and stormy waters,” according to a recent Reep Green Solutions press release. Wood currently serves as chair of Reep’s Board. The award is for a “board member who has demonstrated through his/her work and achievements the strongest commitment to a Green Community providing exceptional stewardship to the organization.” Green Communities Canada is a national umbrella group for community-based environmental non-profit organizations.

(adapted from the *Daily Bulletin*, 9 July 2020)

Ladan Tahvildari, professor in Electrical and Computer Engineering, will lead the **IEEE Technical Council on Software Engineering (TCSE)** for a two-year term as chair, the world’s largest professional organization devoted to computer science. She is the first woman, and only the second member from Canada, to chair the organization after holding numerous positions within the IEEE. Tahvildari founded the Software Technologies Applied Research Laboratory at Waterloo in 2004 and has focused her research on software architecture, autonomic computing, security and software analysis/testing. The underlying theme of her research has been to devise techniques and tools that aid with the construction, analysis, and maintenance of large-scale software systems. Prior to her election to the TCSE, Tahvildari had been active in several IEEE committees. Tahvildari has more than 10 years of experience as chair of the IEEE Women in Engineering (WIE) Affinity Group and served as chair of the IEEE Computer Society (2004-2008), Kitchener-Waterloo Section in Eastern Canada. She has also received a variety of awards/distinctions recognizing her outreach accomplishments.

(adapted from the *Daily Bulletin*, 14 July 2020)

The winners of the **Spring 2020 Concept \$5K pitch competition** have been announced:

- **Aqua-Cell Energy:** Aqua-Cell Energy is developing large scale batteries to store renewable energy for continuous solar and wind power to help power a greener and cleaner world.
 - **Keith Cleland**, Chemical Engineering Master's candidate, University of Waterloo
 - **Jeff Gostick**, Professor, Chemical Engineering, University of Waterloo
 - Anne Benneker, Professor, Chemical Engineering, University of Calgary.
- **Eight Stories of Modesty:** Eight Stories of Modesty is a Hijab brand that aims to create a meaningful journey for its customers by bringing to light the experiences of women that wear the headscarf through a concept known as fashion storytelling.
 - **Tamania Majeed**, Accounting and Financial Management, University of Waterloo
- **Lumos:** Lumos is developing light therapy glasses that combine blue blocking effects with the active light therapy of a light lamp.
 - **Lucas Tang**, Mechanical Engineering, University of Waterloo
 - Dr. Jamie Zeitzer, Neurobiology, Harvard
 - Dr. Kasey Li, Medical School, Harvard
 - **James Ro**, Physics and Electronics, University of Waterloo
 - Lingfeng Tao, Industrial Design, University of Notre Dame
- **Mox Health:** Mox Health is developing a convenient and easy to use transdermal patch to detect female ovulation.
 - **Lawrentina D'Souza**, Science and Business, Biotechnology, University of Waterloo
 - **Kamran Maksimov**, Materials and Nano Science, University of Waterloo

In addition to these winning teams chosen by our judges, the virtual audience picked their representative as the People's Champ. The winning team, **Scribble**, took home \$500 in grant funding and the pride that they were the fan favourite.

- **Scribble** is developing a web-based platform for remote software development teams to collaborate on technical diagrams in real time.

(adapted from the *Daily Bulletin*, 6 August 2020)

Concept also announced the winners of their **Pandemic Challenge Fund**. Waterloo students had the opportunity to participate in virtual workshops and connect with innovation coaches. 69 different teams made up of over 130 students from across all Faculties and academic levels worked their way through the challenge doing extensive research, attending workshops, meeting with coaches, and committing to solving global problems. After a semester of hard work, applications were opened so they could receive grant funding to continue working on their ideas. These students had the opportunity to develop and pitch their ideas to potentially receive \$3,000 in funding support. The winning teams showed that they had thoroughly researched the problem at hand, and had come with a realistic and deployable solution, as well as the sustainability of their solution, and the future it had in a post COVID world. The winners are:

- **Decomp** is a plastic waste disposal solution that adopts the growth of microbes inside a bioreactor technology, which then sorts, shreds and organically degrades plastics within weeks.

- **OpenMeal** is a company that supports local restaurants and individuals who were impacted by COVID-19. Its diverse team involves two Waterloo students — **Iris Guo**, an Accounting and Financial Management student, and **Ethan Rivers-Garcia**, a Science and Business student.
- **OpenRace** is the first real-time virtual running app that allows users connect and find motivation from other runners. While event organizers have the opportunity to increase revenue, reach a larger audience and provide a more interactive online race through the use of the OpenRace app.

(adapted from the *Daily Bulletin*, 10 August 2020)

Professor **Hamid Tizhoosh** (Systems Design Engineering) is among the 20 pathologists and computer scientists listed in this year's "**Power List**" by *The Pathologist*, joining colleagues who achieved big breakthroughs as "trailblazers working at the cutting edge and driving forward the future of the field." Tizhoosh leads the KIMIA Lab (Laboratory for Knowledge Inference in Medical Image Analysis). His research activities encompass artificial intelligence, computer vision, and medical imaging. He has developed algorithms for medical image filtering, segmentation, and search. Presently, he is the AI Advisor of Huron Digital Pathology in St. Jacobs. In addition, he is a faculty affiliate to the Vector Institute of Toronto, where he leads a pathfinder project on using AI in radiology. *The Pathologist*, an award-winning international monthly publication, is the exclusive print and online media of the American Society for Clinical Pathology (ASCP). *The Pathologist* collects nominations from the pathology community. An expert panel selects the distinguished physicians and researchers based on their track record and achievements in the field. The magazine provides ASCP members with access to news, editorial features and opinion pieces on all aspects of laboratory medicine and diagnostics, including the research, personalities and policies that shape the pathology and laboratory medicine sector.

(adapted from the *Daily Bulletin*, 12 August 2020)

Anson Yu of Langley, BC, is the latest Loran Scholar to choose Waterloo after landing a four-year scholarship aimed at finding and supporting high-potential young Canadians. Engineering's co-op program was a major draw for an incoming student who will start her studies this fall with backing from a prestigious scholarship worth up to \$100,000. Yu is one of 36 scholarship recipients for 2020 selected from an initial pool of more than 5,100 applicants across the country. "Despite classes being online in the fall, I am still beyond excited to join the Warrior community," she said, adding she picked Waterloo Engineering because it "helps connect the classroom with the workplace with its career-oriented co-op program." A graduate of R.E. Mountain Secondary School, Yu led a national youth team for a charity that empowers children with disabilities and established the first beehive at her school. She also advocates for environmental causes through videography and photojournalism, and works as a graphic designer and a debate coach for underprivileged elementary students. The scholarship includes an annual \$10,000 living stipend, matching tuition waiver at a partner university and up to \$10,000 in funding for summer internships, plus one-on-one mentorship, yearly retreats and social gatherings. Of almost 700 past and present Loran Scholars since the national charity was established in 1988, 40 have chosen to attend the University of Waterloo. Yu joins eight others already doing undergraduate degrees at Waterloo.

(adapted from the *Daily Bulletin*, 28 August 2020)

Five University of Waterloo researchers have been named **fellows of the Royal Society of Canada (RSC)** and **members of the Royal Society of Canada's College of New Scholars, Artists and Scientists**. They are among 87 new fellows elected by their peers for outstanding scholarly, scientific, and artistic achievement and 50 new members of the College of New Scholars, Artists and Scientists across Canada. Waterloo's new RSC fellows and members are:

Fellows of the Royal Society of Canada

- **Susan Horton** (School of Public Health and Health Systems; jointly appointed with the Department of Economics) is known internationally for her work on global health economics. Her work on economics of nutrition contributed significantly to successful efforts to emphasize nutrition investments in international policy. Her current work on economics of cancer and of diagnostics aims to increase attention to these topics within the Sustainable Development Goal for Universal Health Coverage. She is a Fellow of the Canadian Academy of Health Sciences.
- **Imre Szeman** (Communication Arts) is an internationally acclaimed cultural theorist. His landmark research establishes the shaping influence of fossil-fueled dependency on modern society. Professor Szeman's work propelled a new discipline - energy humanities - which grapples with the cultural transformations required for a global shift to sustainable and renewable forms of energy. A highly collaborative, interdisciplinary and public-facing scholar, he is the co-founder of the Petrocultures Research Group and numerous initiatives advocating for energy transition.

Members of the Royal Society of Canada's College of New Scholars, Artists and Scientists

- **Jay Dolmage** (English Language and Literature) is the Founding Editor of the highly impactful *Canadian Journal of Disability Studies*. Winner of the 2015 PROSE award, Professor Dolmage's work brings together rhetoric, disability studies, and critical pedagogy, in an accessible yet ground-breaking body of articles, talks, and workshops. A fierce advocate for disability rights, Dolmage is committed to publishing Open Access and accessible material and helped to author the international guidelines for accessible electronic books.
- **Josh Neufeld** (Biology) is an ecologist who characterizes microbial communities in terrestrial, aquatic, and host-associated habitats. By developing and combining cultivation-dependent and molecular techniques, his lab explores the "microbes that matter" to connect these novel microorganisms with the important roles that they play in their communities. His passion for microbiology and its communication has resulted in authorship of a microbiology textbook, multiple teaching awards, and service as Chief Editor for *The ISME Journal*.
- **Maria Strack** (Geography and Environmental Management) is a Canada Research Chair in Ecosystems and Climate who leads an internationally recognized research program investigating greenhouse gas exchange in peatland ecosystems - the world's largest natural terrestrial carbon stores. This work includes participation in some of the first peatland reclamation projects in Alberta's oil sands. She works closely with industry, government and non-governmental organizations to translate her findings into improved land management in the face of climate change.

(adapted from the *Daily Bulletin*, 11 September 2020)

Cheriton School of Computer Science Professor **Jeffrey Shallit** is one of five foreign members elected to the **Finnish Academy of Science and Letters for 2020**. The Finnish Academy of Science and Letters is a broad-based learned society with the principal aim of promoting scientific research and acting as a bond between those engaged in advanced research. Members of the Academy are at the top of their profession, and being invited as a member constitutes a distinguished achievement in a scientist's career. Professor Shallit is an accomplished computer scientist interested in the interplay between number theory, algebra, logic, discrete mathematics, and the theory of computation. Most of his research focuses on combinatorics on words and automata theory, especially on decision procedures. Professor Shallit's books, journal and conference papers have been cited more than 8,500 times. With his colleague Jean-Paul Allouche, Director of Research at the Centre national de la recherche scientifique, he coauthored *Automatic*

Sequences: Theory, Applications, Generalizations. This noted text covers sequences generated by finite automata and their generalizations, with applications to number theory and theoretical physics. Published in 2003 by Cambridge University Press, *Automatic Sequences* has been cited almost 1,500 times. With Eric Bach, he coauthored *Algorithmic Number Theory: Efficient Algorithms*, a book that provides a thorough introduction to the design and analysis of algorithms for problems from the theory of numbers. Cited almost 1,000 times to date, this foundational book in computing was published in 1997 by MIT Press. He is also one of four authors of *Neverending Fractions: An Introduction to Continued Fractions*, a book cowritten with Jon Borwein, Wadim Zudilin, and the late Alf van der Poorten (1943–2010), published by Cambridge University Press in 2014.

(adapted from the *Daily Bulletin*, 25 September 2020)

Cindy Yang is the winner of the inaugural **Raymond Laflamme and Janice Gregson Graduate Scholarship for Women in Quantum Information Science**. Yang, a new Master of Applied Science student in Electrical and Computer Engineering (quantum information) has a passion for acoustic and superconducting waves who discovered quantum information science while learning how to make photonic devices. She was instantly intrigued by the possibilities that quantum research offered her. The new award honours Raymond Laflamme, Officer of the Order of Canada, and his partner Janice Gregson, for their leadership at the Institute for Quantum Computing (IQC) through Ray’s 15-year tenure as Executive Director (2002-17). The award is given to a self-identified female IQC graduate student who has achieved academic excellence and shows a strong potential for research excellence. Yang is thankful to the Laflamme family for their support. “I feel delighted, honoured and grateful to be the first recipient of this scholarship,” said Yang. “I hope my work can contribute to the field of quantum information non-trivially.”

(adapted from the *Daily Bulletin*, 5 October 2020)

The University of Waterloo will award **posthumous degrees** as part of its fall convocation in celebration of the academic accomplishments of **Mansour Esnaashary Esfahani** and **Marizeh (Mari) Foroutan**, two students killed in the crash of Ukrainian International Airlines Flight PS752 in January 2020. An honorary degree has also been awarded to **Jaya Gupta**, an undergraduate Engineering student who lost her fight with cancer earlier this fall. “The sadness at the loss of Mansour, Mari and Jaya has been profound both personally and across our University community,” says Feridun Hamdullahpur, president and vice-chancellor. “As we recognize our graduating students, we felt it important to celebrate the academic and personal contributions of each of these wonderful individuals to honour their memories.”

Waterloo awarded Gupta an honorary Bachelor of Applied Science degree in September 2020 before she lost her battle with a rare form of cancer. The Nanotechnology Engineering student also received her iron ring, a significant milestone for every engineer, at a special virtual ceremony attended by Hamdullahpur and Mary Wells, dean of engineering. Esfahani will be awarded a Doctor of Philosophy in Civil Engineering. He was conducting his doctoral research in the area of construction automation and management, focusing on adaptive reuse projects in the circular economy. Foroutan’s graduate work in Geography and Environmental Management focused on the application of new algorithms and technologies in remote sensing to study climate change as well as researching planetary extremes from hyper-arid hot deserts to freezing worlds. She will be awarded a Doctor of Philosophy in Geography. Both Foroutan and Esfahani will be honoured on October 23 as part of the fall 2020 virtual PhD graduate celebration. The University is creating memorial awards for Foroutan and Esfahani, with generous support from alumni and donors.

(adapted from the *Daily Bulletin*, 20 October 2020)

University of Waterloo
BOARD OF GOVERNORS
Report of the Vice-President, Administration & Finance
27 October 2020

FOR APPROVAL

Incidental Fees Winter 2021 – General Approach to Fee Assessment

Recommendation

It is recommended that incidental fees to be assessed and collected during the winter term 2021 from full-time and part-time undergraduate and graduate students be modified to reflect the combined “online with some in-person” delivery method. The specific approach will be finalized collaboratively by the presidents/vice-presidents of the Waterloo Undergraduate Student Association (WUSA) and the Graduate Student Association – University of Waterloo (GSA), the Vice-President, Administration & Finance, and the Associate Provost, Students for approval by the President and Provost. (This is the same approach used for the spring and fall terms.)

Comments:

- In a typical winter term, there are approximately 80 incidental fees assessed to undergraduate and graduate students and approximately \$16.5M is collected in revenue to the University, WUSA and the GSA
- Those discussions will determine how the fee assessments may be modified
- One of the primary determinants for continuing with a specific fee is student accessibility to the service during the winter term; other considerations are also under discussion
- A report summarizing winter term incidental fee assessments will be provided at the April Board meeting

FOR INFORMATION

Incidental Fees Fall 2020 – Assessment Update

Summary

- Incidental fees were assessed and collected for fall term 2020 reflecting the combined “online with some in-person” delivery method
- Fees were determined through consultation between the University and presidents/vice-presidents of the Waterloo Undergraduate Student Association (WUSA) and the Graduate Student Association – University of Waterloo (GSA)
- Approximately \$6.5M of incidental fees were not assessed as follows:
 - Athletics and Recreation fee amounting to \$2.9M
 - Undergraduate Grand River Transit Universal Pass fee amounting to \$2.7M
 - 6 student society fees amounting to \$115k
 - WUSA Orientation Fee amounting to \$750k

Dennis Huber
Vice-President, Administration & Finance

University of Waterloo
Board of Governors
BUILDING & PROPERTIES COMMITTEE
Report to the Board of Governors
27 October 2020

This report is submitted following the committee's meeting of 30 September 2020.

FOR INFORMATION

1. General Oversight

The committee reviewed and accepted for information:

- the capital financing commitments associated with capital projects, and advises that these commitments fall within the University of Waterloo's board-approved debt policy
- revenue maximum for principal and interest payments
- the work plan of the committee
- the terms of reference of the committee.

/ar

Martha George
Chair

The proposed revision (see below, marked-up version) is brought forward for approval by the Board of Governors. (Note: bold = new text; strikethrough = deleted text)

**University of Waterloo
Board of Governors
BUILDING & PROPERTIES COMMITTEE**

1. MEMBERSHIP

This committee shall consist of a maximum of nine members. Of those, at least five members shall be members of the board appointed to the board by the Lieutenant Governor in Council or elected by the board from the community-at-large, and one shall be a faculty member of the board.

One undergraduate student member of the board and one graduate student member of the board shall be members of the committee. If the presidents of the ~~Federation of Students~~ **Waterloo Undergraduate Student Association** and the Graduate Student Association – **UW** are members of the board, then they shall serve respectively as the undergraduate and graduate student members of the committee. Should the president of the **Waterloo Undergraduate Student Association** ~~Federation of Students~~ or the Graduate Student Association – **UW** be unwilling to serve on the committee or not be a member of the board, then the respective seat on the committee shall be filled by appointment from among student governors made by the president of the respective student ~~federation or~~ association.

It is expected that at least two members of the committee will have experience with capital construction and/or property development.

2. MEETINGS

The committee will meet at the call of the chair of the committee, but not less than four times annually.

The quorum for the transaction of business at any meeting of the committee shall be a majority of the members of the committee, present either in person, by teleconference or by videoconference, provided that not less than a majority of those constituting the quorum shall be members appointed to the board by the Lieutenant Governor in Council or elected by the board from the community-at-large.

3. TERMS OF REFERENCE

The committee is established for the following purposes:

To oversee campus planning and development activity in the context of the Campus Master Plan and prudent environmental sustainability practices, and not less than annually to perform a review of the Campus Master Plan in the context of the university strategic plan.

To make recommendations to the Board of Governors on campus planning and development initiatives, with due consideration to the impact on multi-campus sites, including (without limitation) the acquisition or disposal of land or buildings, the use of land, buildings and facilities, the siting of buildings and roads, and the review of all agreements to which the university is a party (including donor agreements and academic agreements) having impact on the acquisition, use and/or development of real property.

To approve on behalf of the board, construction projects between **\$5,000,000 and \$10,000,000** ~~\$2,000,000 and \$5,000,000~~ and to make recommendations to the Board of Governors regarding construction projects exceeding **\$10,000,000** ~~\$5,000,000~~, including (without limitation) the appointment of architects and design consultants, the business plan and budget, the design, and the award of construction contracts.

To ensure that the university has in place appropriate procedures for cost estimating, competitive tendering of bids, awarding of contracts, contract administration, cost control and payment to contractors for all site work, new construction, alterations and major repair.

To ensure that the university complies with all building codes, fire codes, safety regulations and statutory and regulatory provisions, as appropriate, in its building and properties program, and to review compliance annually.

To ensure that the university has appropriate maintenance programs in place for buildings and properties.

To review annually the status of capital construction projects, including status of accumulated debt and compliance with approved debt policy.

To report on its activities to the Board of Governors at least annually.

To assess annually the adequacy of the committee's terms of reference and to propose any needed amendments to the Governance Committee.

Approved by the Board of Governors, 6 June 2006

Amended by the Board of Governors, 1 April 2008

Amended by the Board of Governors, 27 October 2009

Amended by the Board of Governors, 2 April 2013

Amended by the Board of Governors, 1 April 2014

**University of Waterloo
Board of Governors
EXECUTIVE COMMITTEE
Report to the Board
27 October 2020**

This report is submitted following the committee's deliberations during July and October 2020.

FOR INFORMATION

On 23 July 2020, the following two resolutions were passed on behalf of the Board of Governors.

1. Financial Statements for Year Ended 30 April 2020

That the Board Executive Committee approve the Financial Statements on behalf of the Board of Governors.

2. Termination of Oldfield Partners – an Investment Manager in Registered Pension Plan

That the Board Executive Committee approve the termination of Oldfield Partners LLP as an approved global equity manager for the registered pension plan, with investment of the proceeds (~\$138m) into TDAM global equity indices already owned in the pension (TD Emerald U.S. Pooled Fund and TD Emerald International Equity Index).

On 8 October 2020, the following two resolutions were passed on behalf of the Board of Governors.

3. Graduate Student Representative on Board Executive Committee

That the Board Executive Committee approve the appointment of Julia Goyal, term to 30 April 2022, as graduate student representative member on the Board Executive Committee.

4. Reappointments on Pension & Benefits Committee

That the Board Executive Committee approve the following reappointments to the Pension & Benefits Committee:

- Marilyn Thompson as a President's appointee recommendation, term to 30 April 2023
- Ted Bleaney as a UW Staff Association President's recommendation, term to 30 April 2023
- Ranjini Jha as a FAUW President's recommendation, term to 30 April 2023
- Mary Thompson as the UW Retirees Association President's recommendation, term to 30 April 2023

Cindy Forbes
Chair, Executive Committee

University of Waterloo
Board of Governors
FINANCE & INVESTMENT COMMITTEE
Report to the Board of Governors
27 October 2020

This report is submitted following the committee's meetings of 4 June 2020, 23 July 2020 and 1 October 2020. This report is recommended for inclusion in the regular agenda.

FOR INFORMATION

1. General Oversight

Market Conditions. The committee continues to maintain a close watch on investment market conditions and the impacts on the university's various investments and has been meeting more frequently outside the regular meeting cycle to monitor this volatility.

Redirecting Realized Investment Income from Endowment Investment Mandate. At the recommendation of staff the committee directed that instructions be given to designated investment managers of the endowment to cease the automatic reinvestment of realized investment income until directed otherwise by staff. This change optimizes the management of cash flows from the realized investment income to minimize intra-month flows. The realized investment income will be first be applied to fund endowment expendable, and any excess cash resulting from this practice will be reinvested with investment managers on a quarterly basis to aid in rebalancing.

Expendable Funds Investment Guidelines. The committee approved guidelines (Attachment #1) which enunciate the management of the university's unspent expendable funds (cash from operations, capital projects, ancillary operations etc.), where this would have previously been managed within the Finance Department. The committee will review these guidelines annually.

/mg

James Schlegel
Chair

University of Waterloo
Expendable Funds Investment Guidelines
As at June 2020

Background and definition

Expendable funds include the University's unspent cash from operations, capital projects, ancillary operations, expendable donations/trust, expendable payouts from endowments, and research grants.

Objectives for the Funds

- The primary investment objective is capital preservation. This is prioritized above the other investment objectives. The University seeks to avoid the risk of capital impairment on these funds.
- The secondary investment objective is liquidity. This is prioritized above earning a return. Investments should be sufficiently liquid such that they can generally be sold/redeemed at any time.
- The third investment objective is earning a return.

Risk tolerances

In line with the objectives of the fund, the University's risk tolerance on expendable funds is minimal to low.

Return targets

The return target for expendable funds is the Government of Canada 3-year bond yield + 20 bps.

Permitted investments

Permitted investments are:

- Cash (Term: Available on demand)
- Money market investments (Term: 30 – 365 days)
- Bankers' acceptances (Term: less than 1 year)
- Treasury bills (Term: less than 1 year)
- GICs (Term: 1 year – 5 years)
- Canadian Federal and Provincial government bonds (Term: 1 year – 5 years)
- High quality corporate bonds (Term: 1 year – 5 years)
 - The minimum quality standard for individual bonds and debentures is 'BBB' or equivalent as rated by at least two Recognized Bond Rating Agencies, at the time of purchase.
 - Recognized Bond Rating Agencies are Dominion Bond Rating Agency, Standard and Poor's and Moody's Investors Services.

All investments other than cash are to be from Canadian issuers in Canadian currency.

Up to 5% of expendable funds can be held on deposit in non-Canadian currencies to support cash requirements in these currencies.

Prohibited investments

Prohibited investments are any investments not specifically included as permitted investments. Donations of equity or other prohibited investments are sold upon receipt based on standing instructions with the University's investment broker and are then reinvested in permitted investments.

Additional investment considerations

The following additional investment considerations will be taken into account in investing these funds:

- Cash flow requirements and investment horizon based investing:
 - The University considers its cash flow requirements for the next 12 – 24 months in making investments of expendable funds.
 - The University maintains a minimum of 3 months' worth of forecasted Canadian dollar cash requirements in Canadian bank deposits.
 - The University determines the allocation of expendable funds to cash beyond the minimum versus other permitted investments and shifts this allocation over time dependent on business plans and results, capital spending, differential interest rates, market conditions and other factors.
 - A laddering term structure is applied for the non-cash investments, using terms of 1 – 5 years, to mitigate interest rate risk.
 - In managing interest rate risk, the University remains mindful of effectively mitigating liquidity.
- Diversification by issue and issuer, to mitigate investment risk and concentration risk
- The University is signatory to the UN Principles for Responsible Investment. As the University is committed to responsible investment, the University will be cognizant of any relevant opportunities to consider environmental, social and governance factors while managing its investments in expendable funds.
- Special factors, if any, which the University considers significant

Guideline Review

The F&I Committee will review and approve these Guidelines at least annually.

University of Waterloo
Board of Governors
GOVERNANCE COMMITTEE
Report to the Board of Governors
27 October 2020

This report is submitted to the Board of Governors following the meeting of the Governance Committee on 1 October 2020.

FOR INFORMATION

General Update

The committee has invited feedback and advice from the Director of Equity with respect to the Board's core competencies in its [Governance Principles](#) with a view to consideration of changes by the Board in 2021. The committee received from the president and the secretary a report on recent work undertaken by their offices on some continuous improvement initiatives for the Board (e.g., more consistency in executive reporting; creation of opportunities for Board engagement between meetings). The committee received the president's mid-year report and held a discussion about the retreat in December.

Cindy Forbes
Chair, Governance Committee

University of Waterloo
Board of Governors
PENSION & BENEFITS COMMITTEE
Report to the Board of Governors
27 October 2020

This report is submitted following the committee's meetings of 12 June 2020, 9 September 2020 and 16 October 2020, for inclusion in the consent agenda.

FOR INFORMATION

1. Funding Request for Asset-Liability Study

The Committee approved a \$70,000 expense (plus any out-of-pocket expenses) to the Registered Pension Plan to engage Aon Hewitt Inc. to conduct an asset-liability study. The most recent study was completed in 2017, and since that time capital markets have changed significantly, the Pension Investment Committee (PIC) has been constituted and has held two meetings, and as part of its work plan the PIC has requested that the 2017 asset-liability study be updated to inform future investment decisions.

An asset-liability study identifies risks faced by the Plan and opportunities to improve the risk-reward of the investment asset mix; the goal of the investment strategy in 2017 was to minimize risk while maintaining sufficient returns to provide the promised benefits at a reasonable cost. The results of this study will be shared with the Committee.

2. United Nations Principles for Responsible Investing (UN PRI) Membership Fees

In 2016 the Board of Governors approved the creation of a Responsible Investing Working Group. On June 5, 2018, this group reported back with a variety of recommendations, including that the University should "become a signatory in good standing to the UN PRI". In September 2019, through consultation with an external consultant, Rally Assets, a plan was put forth whereby the University, including the Pension Plan, would apply to become a signatory to the UN PRI within the first quarter of 2020.

On February 27, 2020, the University of Waterloo submitted its application to the UN PRI. A subsequent declaration was signed on March 31, 2020 and submitted to establish the Pension Plan as a separate applicant. On May 6, 2020, the application for the Pension Plan was provisionally approved, pending payment of the first year's member fees. The first year's membership fees (£2,507.50; \$4,536 CAD), which are charged based the value of an organization's investment assets, were pro-rated to represent the 10-month period of June 2020 through March 2021 and were paid by the University of Waterloo. Subsequent invoices will be issued to reflect future year's membership fees covering the 12 months between April and March (approx. £3,000). The committee approved payment of the membership fees.

3. General Oversight

The committee receives regular reports from the consulting actuary on legislative and policy changes anticipated and in force that impact public sector pensions, as well as changes implemented by other public sector pension plans. The committee discusses implications for the pension plan and takes the information into account when making decisions on matters including plan design, funding and administration.

As part of the general oversight function exercised by the committee, the committee has devoted attention to following issues: ongoing updates on holistic review of employee benefits; funded status of pension plan, including funding ratios, special payments, reserves, investment risk, and impact of market shifts on these calculations; benefits utilization; comparison of the university's benefits plan provisions relative to standard plan provisions of the carrier Great-West Life.

/mg

Peter Barr
Chair

UNDERGRADUATE ADMISSIONS

Applications Received (as of June 5)	Offers Made (as of July 1)	Confirmed (as of June 5)	Currently Enrolled (as of Sept 29)	Nov 1 Target	Nov 1 Anticipated
55,580 (-1,262 vs 2019)	36,052 (+6,783 vs 2019)	9,064 (+1,599 vs 2019)	8,037 (+1,157 vs 2019)	6,829 (+16 vs 2019)	7,785 (+1,058 vs 2019) 6,335 (+691) Cdn fees 1,450 (+367) Int'l fees

Our recruitment and admissions activities are made possible through the combined efforts of recruitment, admissions, and communication staff from throughout the Registrar's Office and across the campus as well as activities and assistance from countless faculty members and current students.

Highlights

Fewer applications: OUAC system-wide, first-year full-time applications were down (-1.1%) vs. 2019

More confirmations: OUAC system-wide, confirmations were up (+1.1%) vs. 2019

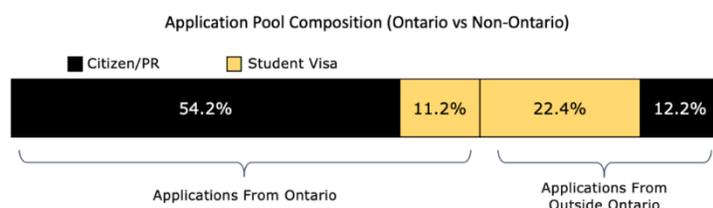
Pandemic adjustments: To mitigate enrollment risk, Waterloo was more aggressive, making 23% more Fall 2020 offers of admission; Waterloo's confirmations were up by over 20% compared to 2019

Faculty of Mathematics: A special acknowledgement to the Faculty of Mathematics for admitting a greater number of students and to aim for a larger target than normal to help the University in this extraordinary time. Their contributions played an important role in Waterloo's ability to meet its enrolment targets this fall.

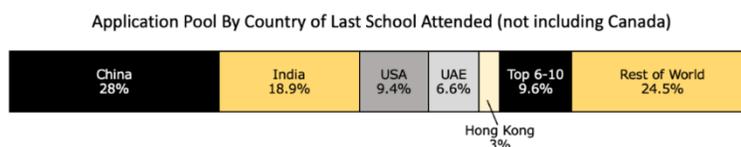
Popular programs: some high-demand programs continue to see very competitive admissions cut-offs (95%+) with deep applicant pools

Ongoing risk: multiple programs continued to admit at the minimum of 75%; application pools for some programs are insufficient to reliably meet enrollment targets; this is a trend that began pre-pandemic

Application pool: our total F2020 application pool was similar to F2019 in terms of applicant citizenship status and school location; student visa applicants from Ontario continue to be primarily Chinese citizens



International applications: 23.6% of applications were from schools outside of Canada; for F2020 we saw applications from 140 countries and territories (including 2,318 from Canadian citizens/PRs and 10,991 from citizens of other countries)



International diversity: Continued recruitment success in diverse and growing markets including Trinidad & Tobago, Bangladesh, Indonesia, and countries throughout the Middle East

Language pathways: BASE and ELAS programs provided important bridges to full-time studies for more than 300 students needing English language support

FALL 2020 GRADUATE ADMISSION DATA

Introduction

To provide Governors with an impression of the demand for the University's graduate programs, the following data are provided for the fall 2020 admission cycle.

The University classifies its programs into three categories: Professional Master's programs, Research Master's programs and PhD programs. Professional programs tend to be course-based (i.e. not requiring a thesis or major research paper) and require fewer supervisory resources. The University also differentiates its incoming class based on immigration status – international or domestic – to be well-prepared to estimate the budgetary implications of the composition of graduate student enrollment.

These data are presented here for each Faculty and for the University for the Fall 2020 admissions cycle; this year's data are compared to the average fall government count of the previous three years to account for normal year-over-year fluctuations.

Summary

The graduate intake is presented in the Tables below. As of October 14th, and compared to the previous three years' data, graduate student registrations have:

- grown for domestic research Master's students, professional Master's students, and PhD students by 6%, 13% and 9% respectively;
- grown for international PhD students by 2%;
- declined for international research Master's students and professional Master's students by 11% and 29% respectively;
- declined in total at the Master's level by 1%;
- grown in total at the PhD level by 6%.

Relative to the graduate domestic intake targets, the University expects its incoming Master's and PhD students to be at approximately 95% and 96% respectively.

TABLE 1: INCOMING RESEARCH

Faculty	Domestic		International		Total	
Faculty	# Registered	% Change	# Registered	% Change	# Registered	% Change
AHS	78	23%	12	89%	90	29%
Arts	131	-4%	15	-27%	146	-7%
Engineering	87	0%	50	-13%	137	-6%
Environment	70	22%	18	-40%	88	1%
Mathematics	87	27%	97	11%	184	18%
Science	63	-12%	39	-33%	102	-22%
University	516	6%	231	-11%	747	0%

TABLE 2: INCOMING PROFESSIONAL MASTERS

Faculty	Domestic		International		Total	
Faculty	# Registered	% Change	# Registered	Faculty	# Registered	% Change
AHS	266	42%	1	-33%	267	42%
Arts	95	-6%	31	60%	126	5%
Engineering	158	-5%	148	-40%	306	-26%
Environment	80	45%	9	-10%	89	37%
Mathematics	103	-6%	50	-16%	153	-9%
University	702	13%	239	-29%	941	-2%
Total Masters	1218	10%	470	-21%	1688	-1%

TABLE 3: INCOMING PHD

Faculty	Domestic		International		Total	
Faculty	# Registered	% Change	# Registered	Faculty	# Registered	% Change
AHS	38	56%	7	-13%	45	39%
Arts	47	-2%	4	-37%	51	-6%
Engineering	23	-5%	67	4%	90	1%
Environment	36	16%	7	-36%	43	2%
Mathematics	24	7%	56	47%	80	33%
Science	14	-19%	16	-37%	30	-30%
University	182	9%	157	2%	339	6%

Data are of October 14, 2020 and comparisons are made against average of previous three years

University of Waterloo
BOARD OF GOVERNORS
Report of the Waterloo Undergraduate Student Association
Abbie Simpson, President
27 October 2020

FOR INFORMATION

The Waterloo Undergraduate Student Association continues to work to support students on-campus and online. We are continuing to create programming for students, including events and student-run programming. Our WUSA Clubs saw ~80 active clubs register, and 2,300+ students actively engage with our clubs.

Our student-run services offered peer-to-peer support online and in-person, including GLOW Centre for Sexual and Gender Diversity, RAISE – Racial Advocacy for Inclusion, Solidarity, and Equity, MATES – Mentor Assistance Through Education and Support, and the Women’s Centre. Other services available to our students included FEDs Used Book Store, Bike Centre, Centre for Academic Policy Support (CAPS), Food Support Service, and the Student Life Centre helpdesk - the Turnkey.

Our student societies continued to provide faculty specific support to students. The Arts Students’ Union, Engineering Society, Environment Students’ Society, Mathematics Society, Science Society, St. Jerome’s Students’ Union, Conrad Grebel Students’ Council, and the Society of Pharmacy Students created events, workshops, mental health support, and volunteer opportunities for students throughout the spring.

WUSA BOX INITIATIVE

In September we sent 12,000 WUSA boxes to first-year and upper-year students across Canada and the world. These boxes included welcome messages from WUSA, swag items (socks, cutlery set, travel mug) and small items from the campus community (faculty items for first-year students, pens, and stickers). We were excited to partner with Athletics and the Writing and Communications Centre to add some extra Warrior items to the boxes.

STUDENTS’ COUNCIL ADVOCACY FOCUS

Our Students’ Council continues to discuss needs of our student body. The following items were discussed over the spring term:

- University tuition and affordability
- Online proctoring software
- Anti-Black racism
- Student accessibility
- Student safety
- Online harassment
- International student support
- Quality of online learning
- Housing

Currently, we are asking for feedback from students in the following areas:

- Student-run services
- Student fees
- Online courses and teaching quality
- Housing
- Campaign on student data
- Bombshelter Lounge Plan

ADVOCACY HIGHLIGHTS

In partnership with our external advocacy organizations UCRU (Undergraduates of Canadian Research-Intensive Universities) and OUSA (Ontario Undergraduate Student Alliance) we were successful in working with government on the following advocacy milestones:

- Together with four student unions across Ontario, we're calling on the government to fund upstream, community-driven programs to reduce the need for incident response services and build healthier, safer communities
- Canadian Emergency Student Benefit (CESB)
- Mental health supports for post-secondary students - The Ontario government is investing \$19.25 million into mental health supports for postsecondary students in 2020-21, an increase of \$3.25 million over last year.
- Consultation for the fall 2020 Provincial budget focusing on student financial aid, work integrated learning, support for online learning and supporting our international students.

WUSA LEADERSHIP AWARDS

The WUSA Leadership Awards, normally part of the Presidents' Leadership Awards, will be presented in November to our student leaders for the 2019-2020 governing year. The following students deserve recognition for their commitment to the University community.

- **Abbie Simpson** – Faculty of Applied Health Science
- **Caroline Anne Dack** – Faculty of Arts
- **Connor Plante** – Faculty of Arts
- **Daria Kondrateva** – Faculty of Arts
- **Elizabeth Pezzutto** – Faculty of Applied Health Sciences
- **Jason Small** – Faculty of Engineering
- **John Hunte** – Faculty of Mathematics
- **Kyera Mapp** – Faculty of Arts
- **Quin Millard** – Faculty of Engineering
- **Maya Venters** – Faculty of Arts

Thank you again to our students who drive our campus forward and leave lasting impacts on the Waterloo community. As many of them have graduated, we wish them luck on their future endeavours. We look forward to resuming the Presidents' Leadership Awards in 2021 in partnership with the Office of the President and the Graduate Students' Association (GSA).

October 20, 2020

Professor Feridun Hamdullahpur, President and Vice-Chancellor
Members, Board of Governors
University of Waterloo
200 University Avenue West
Waterloo, ON, Canada N2L 3G1

Dear President Hamdullahpur and Members of the Board:

On behalf of over 2,000 students, staff, and faculty from across the University of Waterloo, we write to you to submit two documents with associated action requests for consideration at the October 27th Board of Governors meeting.

The first document is a letter ***signed by 422 faculty and staff members from across our university*** calling on the Board of Governors to divest from fossil fuels and invest in a climate safe future. Over 1,650 students have also signed a similar petition.

These signatories are urging the Board of Governors to **immediately begin a process for 1) divesting the University's endowment and pension plans completely from fossil fuels (oil, gas, and coal), and associated infrastructure; and 2) reinvesting in socially responsible, low-carbon assets** that safeguard investments and—more importantly—our collective future.

To get a sense of why so many members of our university community are requesting that you enact these changes, please watch the 5 minute video created by undergraduate student Joel Mawuena Agbey, available here:

https://www.youtube.com/watch?v=GQk_WnRYc_4&feature=youtu.be

The second document, the “University of Waterloo Carbon-Neutral Investment Policy,” takes the letter noted above a step further. This document, written by students, provides a roadmap for moving the University towards greater sustainability while improving security and increasing returns. It recommends the Board of Governors to **divest holdings in fossil fuel and associated companies, then transition toward a carbon neutral portfolio over the next five years.**

This policy has been endorsed by 25 groups across our university—all student groups with one exception—including the Waterloo Undergraduate Student Association, Graduate Student Association, Racial Advocacy for Inclusion, Solidarity and Equity (RAISE), Engineers Without Borders UW, Environment Students' Society, Science Society, SDG Impact Alliance, University of Waterloo Energy Network, UW General Equality Club, and UW Impact Alliance.



The students at our institution have done an admirable job of laying out the climate challenges that are before us and showing leadership on how the University of Waterloo can bring its investment practices in line with its research program and teaching commitments on climate change. This document is a testament to the learning that is happening on our campuses as well as to the students' concern about the climate emergency and their hope for real action at our institution during this crisis.

Over 2,000 students, staff, and faculty at our institution request that you commit to enacting these changes at your upcoming meeting. We look forward to your response.

Sincerely,



Angela Carter

& Lesley Johnston

Associate Professor, Department of Political Science

PhD Candidate, Public Health and Health Systems

Co-Chair, Climate Justice Working Group,
Faculty Association of the University of Waterloo

Co-chair, Fossil Free UW (student group)



A Call for the University of Waterloo to Divest from Fossil Fuels — and Reinvest in a Just, Climate-Safe Future

October 20, 2020

Dear President Hamdullahpur and members of the Board of Governors:

Climate breakdown is intensifying even faster than predicted—and it is driven by increasing fossil fuel use. The Intergovernmental Panel on Climate Change has confirmed that if we are to prevent global catastrophe with deadly consequences for millions of people and species around the world, we must halve fossil fuel use in ten years and reduce it to nearly zero by 2050.

Therefore, as faculty and staff members of the University of Waterloo we call on you to:

- 1) divest the University's endowment and pension plans completely from fossil fuels (oil, gas, and coal), and associated infrastructure; and**
- 2) reinvest in socially responsible, low-carbon assets that safeguard investments and—more importantly—our collective future.**

Members of our university have been calling for divestment since 2015. In 2016, you rejected divestment and committed instead to align the University's investment decisions around environmental, social, and governance (ESG) criteria. Yet the university continues to invest tens of millions of dollars in fossil fuels. This must end.

Our students have called on us to act—notably those from the Fossil Free UW group and others who support their vision. The next generations face a future of mass extinction, food scarcity, flooding, lethal heat, superstorms, and acidified oceans that will have widespread human health and economic impacts. Moreover, the consequences of the climate crisis will aggravate systemic inequalities experienced by people here in our region, throughout Canada, and around the world. We have a responsibility to work with our students for bold and just climate action.

Divestment is also a financial imperative. Mark Carney, outgoing Governor of the Bank of England and former Governor of the Bank of Canada, recently emphasized that up to half of the world's oil and gas reserves and most of its coal reserves stand to become stranded assets—"worthless" investments. BlackRock, the world's largest asset manager (US\$7 trillion in value), announced in January that it would abandon investments posing climate risks, warning that climate change is causing a "fundamental reshaping of finance." More recently,



the COVID crisis has exposed the peril of fossil fuel investments, as oil prices sunk below zero. No longer can we claim that divesting is against fiduciary duty: indeed, we cannot risk our investments on a sector in decline.

Investing in fossil fuels now poses a reputational risk as well. The tally of universities divesting grows every month in Canada and around the world. Most recently, the University of Guelph committed to divestment to enact its commitment to sustainability in May 2020. Queen's University's Board of Trustees voted to begin reducing the carbon intensity of its endowment fund investments in March 2020. This followed on the University of British Columbia's Board of Governors unanimously resolving to act immediately to divest its endowment fund from fossil fuels in December 2019, a decision inspired by similar actions at Laval University, the Université du Québec à Montréal, and Concordia University. Half of the universities in the UK have committed to divest and divestment is spreading rapidly across US campuses: last year, the University of California system ended its fossil fuel investments citing financial risk, while Harvard University faculty voted overwhelmingly for divestment.

Our university community is committed to taking a lead role in addressing the changing realities of our society, climate, and economy. Divesting from fossil fuels and investing in a just, climate-safe future aligns with our values.

The University of Waterloo has delayed for far too long. We must divest.

Signed,

422 faculty and staff members, listed below (in alphabetical order, by last name):

- Mark Aagaard, Associate Professor, Electrical and Computer Engineering
- Katherine Acheson
- Carol Acton, Associate Professor, Dept of English, SJU
- Wendi Adair, Professor of Psychology, Faculty of Arts
- Daniel Allen, staff, Computer Science Computing Facility
- Jennifer Andrews-Coffey, Academic Advisor & Program Coordinator, Social Development Studies
- Kelly Anthony, Teaching Professor, SPHHS/AHS
- Kristen Archbell, Educational Research Associate, Centre for Teaching Excellence
- Derek Armitage, Professor, Faculty of Environment, School of Environment, Resources and Sustainability
- Sherri Anne Arsenault, Administrative Manager, Dept. of Economics
- Laura Ashfield, Career Advisor, Centre for Career Action
- Andrea Atkins, Lecturer, Civil and Environmental Engineering



- Jason Au, Assistant Professor, Department of Kinesiology
- Martine August, Assistant Professor, School of Planning
- Jeff Avery, Lecturer, Cheriton School of Computer Science
- Peter Balka, Lecturer, Dept. of Stats & Act. Sci., Faculty of Mathematics
- Jennifer Ball, Assistant Professor, Peace & Conflict Studies
- Surya Banerjee, Faculty, Math
- Graham Barnes, Recruitment & Student Engagement Coordinator, Faculty of Environment
- Brett Barrett, Clinical Lecturer, School of Pharmacy
- Janice Barry, Assistant Professor, School of Planning
- Eleanor Bash, Postdoctoral Fellow, Department of Geography and Environmental Management, Faculty of Environment
- Nada Basir, Assistant Professor, Conrad School of Entrepreneurship & Business, Faculty of Engineering
- Alicia Batten, Professor of Religious Studies, Conrad Grebel University College
- Christopher Batty, Associate Professor, Faculty of Math, School of Computer Science
- Chris Bauch, Professor, Department of Applied Mathematics
- Shane Bauman, Lecturer, CEMC
- Anna Beard, Specialist, Digital Engagement, Marketing and Undergraduate Recruitment
- Cassie Bechard, Applied Health Sciences Account Representative, Information Systems & Technology
- Byron Weber Becker, Lecturer, School of Computer Science
- Steven Bednarski, Professor of History & Director, Environments of Change
- Christopher Bennett, Lecturer, Political Science
- Lisbeth Berbary, Associate Professor, Health
- Hilary Bergsieker, Associate Professor, Arts (Psychology)
- Daniel Berry, Prof, Computer Science
- Phil Bigelow, School of Public Health and Health Systems
- Bianca Bitsakakis, Renison University College
- Rebecca Blackie, Course Instructor, Department of Psychology, St. Jerome's University
- Adrian Blackwell, Associate Professor, School of Architecture
- Chloe Blair, Waterloo Indigenous Student Centre Assistant
- J.C. Blokhuis, Associate Professor, Social Development Studies
- Terri Boake, Professor, Architecture
- Ramona Bobocel, Professor, Psychology, Faculty of Arts



- Eva Bogdan, Postdoctoral Fellow, Political Science
- Mario Boido, Associate professor, Faculty of Arts, Department of Spanish and Latin American Studies
- Kieran Bonner, Professor, Sociology and Legal Studies, St. Jerome's University
- Anne Bordeleau, O'Donovan Director, School of Architecture
- Matt Borland, Lecturer, Engineering, Systems Design
- Honor Brabazon, Assistant Professor, Department of Sociology and Legal Studies, St. Jerome's
- Linda Bream, Staff, Psychology
- Laura Bredahl, Bibliometrics and Research Impact Librarian
- Amanda Brown
- Dan Brown, Professor of Computer Science
- Katherine Bruce-Lockhart, Assistant Professor, Faculty of Arts, Department of History
- Kira Brusckke, Career Advisor CCA
- Sarah Burch, Associate Professor and Canada Research Chair in Sustainability Governance and Innovation, Faculty of Environment, Department of Geography and Environmental Management
- Jessica Burns, Field Education Coordinator, Renison University College
- Lauren Byl, Copyright & Licensing Librarian, Library
- Joanne Bynoe
- Susan Cadell, Professor, School of Social Work, Renison University College
- Carly Cameron, Programs Lead, Concept
- Greg K Campbell, Staff
- Lori Campbell, Director Waterloo Indigenous Student Centre, Adjunct Lecturer Indigenous Studies
- Kevin Christopher Carey, Lecturer, Communication Arts
- Priscila Carrara, Science Undergraduate Office
- Angela Carter, Associate Professor, Department of Political Science
- Robert Case, Associate Professor, Social Development Studies, Renison University College
- Diana Castaneda
- Roberta Cauchi-Santoro, Assistant Professor, Department of Italian & French Studies
- Paul Cegys, lecturer, Communication Arts
- Sarah Chan, Faculty of Mathematics, CEMC
- Rashmi Chandra
- Marie Charbonneau, postdoctoral fellow, Faculty of Engineering



- Hari Chotara, IT Infrastructure Specialist, Math, MFCF
- Tammy Chouinard
- Angela Christelis, Administrative Manager, Philosophy
- Paulina Cisneros, Career Advisor, Centre for Career Action
- Jennifer Clapp, Professor, Faculty of Environment, School of Environment, Resources and Sustainability
- Amelia Clarke, Associate Professor, School of Environment, Enterprise & Development
- Jennifer Clary-Lemon, Associate Professor, English Language and Literature
- Daniel Cockayne, Assistant Professor, Faculty of Environment, Department of Geography and Environmental Management
- K. Collins, Communication Arts
- Andrea Collins, Assistant Professor, Faculty of Environment, School of Environment, Resources and Sustainability
- Frankie Condon, Associate Professor, English Language and Literature
- Ashley Congi
- Jenny Conroy, English Language & Literature
- C. Cooper
- Marie-Claire Cordonier-Segger, Full Professor of Law, Faculty of Environment, School of Environment, Enterprise and Sustainability
- Katelyn Cousteils, Writing and Multimodal Communication Specialist (STEM Resource), Writing and Communication Centre
- Douglas E. Cowan, Professor, Religious Studies and Social Development Studies
- Jordana Cox, Assistant Professor, Communication Arts
- James R. Craig, Associate Professor, Civil and Environmental Engineering
- Neil Craik, School of Environ., Enterprise and Development
- Dylan Cyr, History
- Secil Dagtas, Associate Professor, Anthropology
- Andrea Daley, Associate Professor and Director, School of Social Work, Renison University College
- James Danckert, Full Professor, Psychology
- Robert Danisch, Associate Professor and Chair, Department of Communication Arts
- Nancy Day, Associate Professor, School of Computer Science, Faculty of Math
- Peter Deadman, Associate Professor, Department of Geography and Environmental Management
- Jennifer Dean, Associate Professor, School of Planning



- Rebekah DeJong, Student Life and Recruitment Coordinator, Conrad Grebel University College
- Elizabeth Demers, Professor, School of Accounting & Finance
- Stephanie Denison, Associate Professor, Dept of Psychology
- Carry Derome, Administrative Manager, Religious Studies Department; Undergraduate Coordinator and Advisor, Sociology and Legal Studies Department
- Julie-Anne Desrochers, Student Success Officer, Faculty of Applied Health Sciences
- Goretty Dias, Associate Professor, Faculty of Environment, SEED
- Mike Dixon, Professor of Psychology, Arts, Psychology
- Natalie Doan, School of Public Health & Health Systems
- Brent Doberstein, Associate Professor, Faculty of Environment, Geography & Environmental Management
- Warren Dodd, Assistant Professor, School of Public Health and Health Systems
- Jay Dolmage, Professor, Department of English
- Brian Doucet, Canada Research Chair & Associate Professor, School of Planning
- Mathieu Doucet, Associate Professor, Department of Philosophy
- Ilona Dougherty, Managing Director, Youth & Innovation Project, SEED
- Christine Dow, Assistant Professor and CRC, Geography and Environmental Management
- Michael Drescher, Associate Professor, School of Planning
- Catherine Dubeau, Associate Professor, French Studies
- Joel Dubin, Associate Professor, Statistics and Actuarial Science, and School of Public Health and Health Systems
- Fiona Dunbar, Lecturer, Centre for Education in Mathematics and Computing, Faculty of Mathematics
- Emma Dunn, Writing and Multimodal Communication Specialist, Writing and Communication Centre
- Laura Easson, Conference, Events and Bookings Coordinator, Conrad Grebel University College
- Michael Eden, Lecturer, Faculty of Mathematics, CEMC
- Bill Eickmeier, Psychology
- Chris Eliasmith, Professor, Philosophy & Systems Design Engineering
- Elizabeth English, Professor, School of Architecture, Faculty of Engineering
- Marlene Epp, Professor, History and Peace & Conflict Studies, Conrad Grebel
- Shefaza Esmail, Lecturer, Faculty of Environment SERS
- L Fan, Assistant Professor, Faculty of Arts, Department of English



- Robert Fantauzzi - TA for Dr. J.C. Blokhuis & Dr. Christina Parker
- Andrew Faulkner, Professor, Arts
- Barry Ferguson, Lecturer, Mathematics, CEMC
- Mark Ferro, Associate Professor, Faculty of Applied Health Sciences, School of Public Health and Health Systems
- Victoria Feth, Liaison to the Faculty of Arts, Centre for Teaching Excellence
- Paul Fieguth, Professor, Faculty of Engineering
- Rachel Figueiredo, Librarian
- Nadine Fladd, Writing and Multimodal Communication Specialist, Writing and Communication Centre
- Chris Fletcher, Associate Professor, Department of Geography and Environmental Management
- Jane Forgay, Liaison Librarian, UW Library
- Clive Forrester, Dept. of English Language and Literature
- Craig Fortier, Assistant Professor, Social Development Studies
- Doreen Fraser, Associate Professor, Department of Philosophy
- Bruce Frayne, Professor and Director, School of Environment and Development
- Keith Freeland, Lecturer, Math Business
- Peter Frick, Professor in Religious Studies, Dean at St. Paul's University College
- Katy Fulfer, Assistant Professor, Philosophy and Gender & Social Justice
- Molly Furness, University of Waterloo
- Lucie Galinon, Outreach Activities Administrator, Faculty of Math, CEMC
- Sara Gallagher, Lecturer, English Language and Literature, Arts Faculty
- Owen Gallupe, Associate Professor, Department of Sociology and Legal Studies
- Robert Garbary, Lecturer, Faculty of Mathematics
- Amanda Garcia, Lecturer, Digital Assets Group, Faculty of Mathematics
- Nicolas Gauthier, Associate Professor, Faculty of Arts, French Studies Dept
- Sacha Geer
- Ryan George, continuing lecturer, Department of Economics
- Margaret Gibson, Assistant Professor, Renison University College
- Robert Gibson, Professor, SERS
- Florian Girelli, Associate Professor, Dept of Applied Math
- Olga L. Gladkova, lecturer, Communication Arts
- Simon Glauser, Managing Director, Interdisciplinary Centre on Climate Change
- Ian Goldberg, Professor, Cheriton School of Computer Science
- Samantha Goodman, Research Scientist, School of Public Health & Health Systems



- Rob Gorbet, Associate Professor, Dept. of Knowledge Integration
- Robert N Gosselink, Assoc. Prof retired English Dept. 1966-96
- Sandy Graham, Lecturer, Faculty of Mathematics
- Bryan Grimwood, Associate Professor, Department of Recreation and Leisure Studies
- Igor Grossmann, Associate Professor of Psychology, Direction of Wisdom and Culture Lab
- Roberto Guglielmi, Assistant Professor, Department of Applied Mathematics
- Grant Gunn, Assistant Professor, Geography and Environmental Management, Faculty of Environment
- Jasmin Habib, Director, UW-Laurier Global Governance Program, Balsillie School of International Affairs
- Komal Habib, Assistant Professor, SEED
- D.A. Hadfield, Lecturer, English Language & Literature
- Jordan Hale, Digital Repositories Librarian
- David Hammond, Professor, School of Public Health & Health Systems
- Rhona Hanning, Professor, School of Public Health & Health Systems, Faculty of Applied Health Sciences
- Justin Harbin, Lab Technician, Earth Sciences
- Craig Hardiman, Associate Professor, Department of Classical Studies
- Mary Hardy, Professor, Statistics and Actuarial Science
- Daniel Harley, Assistant Professor, Stratford Programmes
- J. Harris, Admin. Coordinator, WIL Programs
- Randy Allen Harris, Professor, Arts, English Language and Literature
- Jayne Hayden, Career Advisor, Centre for Career Action
- Sandy Heise, Department Administrator, Recreation and Leisure Studies
- Natalie Heldsinger, Interdisciplinary Centre on Climate Change (IC3), Office of Research
- Eric Helleiner, Professor, Political Science
- Heather Henderson, Professor & Chair, Department of Psychology
- Urs Hengartner, Associate Professor, Cheriton School of Computer Science
- Christina Hennelly
- Andrew Heunis, Professor, Electrical & Computer Engineering
- Conrad Hewitt
- Kyle Gingerich Hiebert, Director, Toronto Mennonite Theological Centre, Conrad Grebel University College
- Ken Hirschkop, Professor, English Language and Literature



- Marius Hofert, Associate Professor, Department of Statistics and Actuarial Science
- Kathy Hogarth, Associate Professor, School of Social Work
- Thomas Homer-Dixon, University Research Chair, Faculty of Environment
- Andrew Houston, Associate Professor, Theatre and Performance Program, Department of Communication Arts
- Pamela Hurvid, Undergraduate Recruitment Coordinator, Faculty of Applied Health Sciences
- Jesse Hutchison, Instructor
- Jane Hutton, Assistant Professor, Waterloo Architecture
- Farzaneh Irani, Student Advisor, Cooperative and Experiential Education
- Roxane Itier, Associate Professor, Psychology
- Mary Jackes, Adjunct, Department of Anthropology
- Doris Jakobsh, Professor, Religious Studies
- Craig R. Janes, Director and Professor, School of Public Health and Health Systems
- David Janzen, Communication Arts
- Corey W. Johnson, Professor, Recreation and Leisure Studies
- A. Jonahs, Lecturer, English Language and Literature
- Craig S. Kaplan, Associate Professor, School of Computer Science
- Allison Kelly, Associate Professor, Department of Psychology, Faculty of Arts
- Khadija Khanum, Postdoctoral fellow, ECE
- Luna Khirfan, Associate Professor, School of Planning, Faculty of Environment
- Sharon Kirkpatrick, Associate Professor, School of Public Health and Health Systems
- Veronica Kitchen, Associate Professor, Political Science
- Mikalai Kliashchuk, Lecturer, Faculty of Arts, Department of French Studies
- Christine Ko
- Derek Koehler, Professor, Psychology
- Judith Koeller, Lecturer, CEMC
- Emily Kozlowski, Lecturer, Statistics and Actuarial Science
- Lori Kraemer, Exercise Physiologist, AHS, Kinesiology
- Giselle Kraus, Lab manager, Dept of Psychology
- Alice A. Kuzniar, University Research Chair
- Brian Laird, Associate Professor, School of Public Health and Health Systems
- Patrick Lam, Associate Professor, Electrical & Computer Engineering
- Victoria Lamont, Professor, English



- Robyn Landers, MFCF
- Daryaneh Lane, retired lecturer, CLS department, ELS unit
- Brendon Larson, Professor, School of Environment, Resources and Sustainability
- Kate Larson, Professor, Faculty of Mathematics, Cheriton School of Computer Science
- Sarah Lau, Grants and Contracts Manager, Office of Research
- Kelly Laurila, Lecturer, Faculty of Social Work
- Martha Lauzon, Library Associate, Special Collections & Archives
- Kate Lawson, Associate Professor, Department of English
- Grant Leach, Director, Marketing and Recruitment at Renison
- Hyung-Sool Lee, Associate Professor, Dept Civil and Environmental Engineering
- Elise Lepage, Associate Professor, French Studies
- Eric Lepp, Visiting Assistant Professor in Peace and Conflict Studies, Faculty of Arts, Conrad Grebel University College
- Jessica Leung, Undergraduate Advisor, Computer Science, Math
- Lyndia Littel, PM Strategy & Assessment, Campus Housing
- Jennifer Liu, Associate Professor, Anthropology
- Kristina Llewellyn, Associate Professor, Social Development Studies
- Christine Logel, Associate Professor, Department of Social Development Studies
- Kimberly Lopez, Assistant Professor, Applied Health Sciences (RLS)
- Sandra Lopez-Rocha, Intercultural Learning Specialist, SSO
- Shawn Lotte, Client Support Representative, Centre for Career Action
- David Lubell, Adjunct Professor, Anthropology
- Anna Lubiw, Prof, School of Computer Science, Faculty of Math
- Colin M. MacLeod, Professor, Faculty of Arts, Department of Psychology
- Clint MacPhee, Immigration Consultant, Student Success Office
- Heather Mair, Professor, AHS, Recreation and Leisure Studies
- Shannon Majowicz, Associate Professor, School of Public Health and Health Systems
- Erika Malich, Research Officer, Interdisciplinary Centre on Climate Change (IC3)
- Dr. Noorin Manji, Sessional Professor, Arts Department
- Shari Mann, Lecturer, SAF
- Denise Marigold, Associate Professor, Social Development Studies, Renison University College
- Patricia Marino, Professor, Department of Philosophy
- Nadia Martin, Research Scientist, ITC



- David Mather, Lecturer, Faculty of Engineering (MME/CEE)
- Mark Matsen
- Fiona McAlister
- Megan McCarthy, Lecturer, Psychology
- Jessica McCormick, Immigration Consultant, SSO
- Jenine McCutcheon, Assistant Professor, Faculty of Science, Department of Earth and Environmental Sciences
- Laura McDonald, Faculty Association of the University of Waterloo
- Katy McEwen, Research Finance Coordinator, Psychology
- Paul McGrath, Lecturer, Math
- Ian McGregor, Professor, Psychology, Faculty of Art
- David McKinnon, Chair, Department of Pure Mathematics
- John McLevey, Associate Professor, Department of Knowledge Integration, Faculty of Environment
- Andrew McMurry, Professor, English
- Eden Mekonen, Professional Graduate Program Assistant, SPHHS
- Amy Meredith, Marketing and Undergraduate Recruitment
- Jay Michela, Associate Professor of Psychology
- Phil Miletic, Career Advisor, Centre for Career Action
- Leia Minaker, Assistant Professor, School of Planning (Environment)
- B. Moffatt, Professor, Biology Department
- Adam Molnar, Assistant Professor, Arts, Sociology and Legal Studies
- Becky Moore, Department of Economics
- Markus Moos, Associate Professor, School of Planning
- Rahim Moosa, Professor, Pure Mathematics
- Juan Moreno-Cruz, Associate Professor, Faculty of Environment, SEED.
- Jennifer Morgan, Manager, International Agreements, Waterloo International
- Aimée Morrison, Associate Professor, Dept. of English
- David Moscovitch, Professor of Psychology, University of Waterloo
- Dan Murray, Lecturer, School of Environment, Enterprise and Development
- Jatin Nathwani
- Ashwin Nayak, Professor, C&O, Faculty of Math
- Carter Neal, Lecturer Arts English
- Chrystopher Nehaniv, Professor, Faculty of Engineering, Systems Design Engineering / Electrical & Computer Engineering
- Elena Neiterman



- Peter Nelson, Associate Professor, Combinatorics and Optimization
- Reina Neufeldt, Associate Professor, Peace and Conflict Studies
- Kim Hong Nguyen, Associate Professor, Communication Arts
- Vinh Nguyen, Associate Professor, English
- Paul Nijjar, Sessional Lecturer, David R Cheriton School of Computer Science
- Elizabeth Nilsen, Professor, Department of Psychology
- Trish Noordstra, MSW
- James Nugent, Lecturer, Faculty of Environment
- Erin O'Connell, Lecturer, Faculty of Environment, Department of Geography and Environmental Management
- Daniela O'Neill, Professor, Psychology
- Rafael Oliveira, assistant professor, University of Waterloo
- Sonja Ostertag, Postdoctoral fellow, Faculty of Applied Health Sciences, School of Public Health and Health Systems
- Tamer Ozsu, University Professor, Cheriton School of Computer Science
- Hazel Kabibi Palmer, Academic Administrative Supervisor, Stratford School
- Dawn Parker, Professor, School of Planning, Faculty of Environment
- Paul Parker, Professor, Faculty of Environment
- Tracy Peressini, Associate Professor, Social Development Studies, Renison University College
- Juli-Ann Perkins, Faculty Relations Manager, Faculty of Environment
- Carmen Peters, Librarian
- Marjory Phillips, Director, CMHRT, Department of Psychology
- Wendy Philpott, Communication Manager, Faculty of Arts
- Marcel Pinheiro, Continuing Lecturer, Science
- Nathan Pirie, Undergraduate Coordinator, French Studies
- Guy Poirier, Professor, Department of French Studies
- Mary Power, Sr. Educational Developer, CTE
- Maya Przybylski, Associate Professor, Associate Director, Undergraduate Studies / School of Architecture
- Christine Purdon, C. Psych. Professor
- Anna Purkey, Assistant Professor of Human Rights, St. Paul's University College at the University of Waterloo
- Nadine Quehl, Manager, Non-profit / Public Sector Partnerships, Office of Research
- Zara Rafferty, Lecturer, Applied Health Sciences
- Prabhakar Ragde, Professor, Faculty of Mathematics, School of Computer Science



- Janelle Rainville, Faculty of Arts, Communication Arts
- Omar Ramahi, Professor, Electrical and Computer Engineering
- Nicholas Ray, Assistant Professor, Philosophy
- Roopa Reddy, Lecturer, Faculty of Engineering - Conrad School of Entrepreneurship and Business
- Erica Refling, Centre for Career Action
- Uzma Rehman, Associate Professor, Department of Psychology
- Jessica Reid, Project Manager, School of Public Health & Health Systems, AHS
- Rachel Reist, Academic Advisor, Peace and Conflict Studies
- John K. Rempel, Professor, Psychology, St. Jerome's University
- Jordan Rettinger, Faculty Liaison, CTE
- Alana Rigby, Communications Specialist, School of Pharmacy
- Brett Roberts, Administrative Coordinator, Fine Arts
- Danielle Robichaud, Digital Archivist, University of Waterloo Library, Special Collections & Archives
- Mary Robinson, Associate Director First Year Engineering
- Elizabeth Rogers, Dean of Arts Office
- Nickolas Rollick, Lecturer, Faculty of Mathematics, Centre for Education in Mathematics and Computing
- Lorna Rourke, Associate Librarian, St. Jerome's University in the University of Waterloo
- Susan Roy, Associate Professor, History
- David Rozotto, Assistant Professor, Spanish & Latin American Studies
- H. Rus, Associate Professor, Economics and Political Science
- Colin Russell, Manager, Office of Research
- J. Russwurm, Multimodal Communication Specialist, Writing & Communication Centre
- Michelle Rutty, Assistant Professor, Faculty of Environment
- Val Rynnimeri, Associate Professor, School of Architecture
- Jennifer Saul, Waterloo Chair in Social and Political Philosophy of Language, Philosophy
- John Sbardellati, Associate Professor, Department of History
- Katie Schafer, Manager, Centre for Career Action
- Derek Schipper, Associate Professor and Canada Research Chair, Department of Chemistry
- Anelisa Schmidt, Project Manager, Department of Civil & Environmental Engineering



- Vanessa Schweizer, Associate Professor, Faculty of Environment, Dept. of Knowledge Integration
- Daniel Scott, Professor, Geography & Environmental Management
- Steffanie Scott, Professor, Dept of Geography & Environmental Management, Faculty of Environment
- Pamela Seeds, Clinical Lecturer, Department of Psychology and Centre for Mental Health Research and Treatment
- David Seljak, Professor, St. Jerome's University
- Arshi Shaikh
- David Shakespeare, Lecturer, Departments of Communication Arts and English Language and Literature
- Jeffrey Shallit, Professor, School of Computer Science
- Rashmee Singh, Associate Professor, Sociology & Legal Studies
- Kelly Skinner, Assistant Professor, AHS, SPHHS
- Diana Skrzydlo, Director of MActSc program, Statistics and Actuarial Science
- Lauren Smith, SERS
- Bekah Smoot-Enns, Graduate Coordinator, Theological Studies
- Heather Smyth, Associate Professor, Department of English Language and Literature
- A. Spasevski, Youth Coordinator
- Andrea Speltz, Assistant Professor, Germanic and Slavic Studies
- Sean Speziale, Lecturer, Faculty of Mathematics
- Jonathan Stevens, Exercise Specialist, Faculty of Applied Health Science, Department of Kinesiology
- Maria Strack, Professor and Canada Research Chair, Faculty of Environment, Geography and Environmental Management
- Alexander Suen, Sessional Lecturer at Arts First
- Roger Suffling, Adjunct Professor, School of Planning
- Larry Swatuk, Professor, SEED, Faculty of Environment
- Imre Szeman, Professor, Faculty of Arts, Department of Communication Arts
- Christopher Taylor, Lecturer, Arts
- Marcia Taylor, Undergraduate Advisor, School of Computer Science
- Tobias Thielen, Faculty of Arts
- Jason Thistlethwaite, Associate Professor, SEED, Faculty of Environment
- Andrew Thompson, Program Manager, Global Governance
- Jason Thompson, CTE Faculty Liaison, Faculty of Science, Centre for Teaching Excellence
- Bryan Tolson, Professor, Department of Civil and Environmental Engineering



- Jannah Tudiver, Student Services Counsellor, Renison University College
- Sarah Turnbull, Assistant Professor, Department of Sociology and Legal Studies
- Oliver Twardus, Lab Manager, Psychology
- Chantal Vallis, Communications Officer, Internationalization, Student Success Office
- Joscelyn van der Veen, Undergraduate student (Mathematical Physics), Faculty of Science
- Trish Van Katwyk, Associate Professor, School of Social Work
- Troy Vasiga, Lecturer, David R. Cheriton School of Computer Science
- Christine Vender, Senior Resource Design Specialist, CEMC, Mathematics
- Regina Vera-Quinn, Continuing Lecturer, Faculty of Arts, Spanish and Latin American Studies
- Siera Vercillo, Postdoctoral Fellow at SEED
- Christina Vester, Assoc. Prof., Classical Studies
- Elise Vist, WCMS, Writing and Communication Centre
- Gerald Voorhees, Associate Professor, Department of Communication Arts
- David G. Wagner, Professor, C&O
- Michael Wagoner, Information Technology Specialist, Department of Psychology, Faculty of Arts
- Jim Wallace, Associate Professor, School of Public Health and Health Systems
- Michael Wallace, Assistant Professor, Department of Statistics and Actuarial Science
- Valerie Ward, Assistant Professor, Chemical Engineering
- Olaf Weber, Professor, School of Environment, Enterprise and Development
- Ben Webster, Associate Professor, Pure Mathematics
- Paul Wehr, Continuing Lecturer, Psychology
- David Welch, University Research Chair and Professor of Political Science
- Nicole Westlund Stewart, Writing and Communication Centre
- Katherine White, Associate Professor, Psychology
- Stephanie White, Writing and Multimodal Communication Specialist, Peer Tutor Programs, Writing and Communication Centre
- Heather Whiteside, Associate Professor, Faculty of Arts, Department of Political Science
- Carolyn Whitney-Brown, St. Jerome's University
- Jennifer Whitson, Associate Professor, Sociology & Legal Studies / Stratford School of Interaction Design and Business
- Diane Williams, Associate Director, Undergraduate Studies, School of Public Health and Health Systems



- Erin Windibank, Executive Manager, Faculty Association of the University of Waterloo
- Sarah Elizabeth Wolfe, Associate Professor, School of Environment, Resources and Sustainability, Faculty of Environment
- Joanne Wood, University Professor, Department of Psychology
- Michael Wood, Faculty of Environment, School of Environment, Enterprise and Development
- Nancy Worth, Assistant Professor, Geography & Environmental Management
- Yimin Wu, Assistant Professor, MME
- Brendan Wylie-Toal, Program Manager, St. Paul's University College
- Jennifer Yessis
- SB Young, Assoc Prof, SEED
- Shella Zagada, School of Social Work
- J.S. Zelek
- Rebecca J Zehr, Global Engagement Coordinator, Global Engagement Seminar, Arts
- Anna Ziolecki, Faculty of Environment
- Leanne Zonneveld, Marketing and Recruitment Specialist, AHS



University of Waterloo

Carbon-Neutral Investment Policy

Proposal Drafted by Fossil Free UW

Submitted to the University of Waterloo Board of Directors

October 19, 2020

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University of Waterloo Carbon-Neutral Investment Policy

Executive Summary

As of October 17, 2020, this proposal was endorsed by 25 groups:

- Association of Caribbean Students
- Chem Club
- Effective Altruism Waterloo
- Engineers Without Borders UW
- Environment Graduate Student's Association
- Environment Students' Society
- ERSSA
- Faculty Association of the University of Waterloo's Climate Justice Working Group
- Fossil Free University of Waterloo
- Graduate Student Association
- JamNetwork
- Math Society
- Phys Club
- Racial Advocacy for Inclusion, Solidarity and Equity (RAISE)
- Science Society
- SDG Impact Alliance
- University of Waterloo Concert Band Club
- University of Waterloo Energy Network
- UW Animal Rights Society
- UW Drag Club
- UW General Equality Club
- UW Impact Alliance
- UW Metal Klvb
- UW Young Greens
- Waterloo Undergraduate Student Association

Based on a partial disclosure of information from the University of Waterloo’s Administration on June 30, 2020, we know that at least \$44.8 million of the university’s equity holdings are in the energy sector, which incorporates fossil fuel companies, associated infrastructure companies, and companies that are indirectly involved in the fossil fuel sector. Approximately half of these holdings are invested in Carbon Underground 200 listed companies, including Canadian National Resources Ltd., CNOOC, and Suncor, which are not only known heavy CO₂ emitters, but some of which have participated in decades-long climate-denial campaigns. Moreover, some of these companies are responsible for environmental destruction on a massive scale, human rights violations, and corrupt practices. There are clear environmental and ethical reasons why our University, the Canadian lead for the United Nations’ Sustainable Development Solutions Network, should not be investing in these firms.

Numerous Canadian universities have committed to divest from fossil fuels. Université Laval, the Université du Québec à Montréal, and Concordia have committed to divestment. The University of British Columbia’s Board of Governors unanimously resolved to divest its endowment fund from fossil fuels in December 2019. In March 2020, Queen’s University’s Board of Trustees voted to begin reducing the carbon intensity of its endowment fund investments, while in May, the University of Guelph committed to divestment to enact its commitment to sustainability. Canada’s most innovative university should not be left behind.

While the ethical imperative is clear, so is the economic case for divestment. Major financial players such as BlackRock and the European Investment Bank have committed to divesting many of their fossil fuel holdings given the financial risk of that sector. Mark Carney, the outgoing Governor of the Bank of England and former Governor of the Bank of Canada, recently emphasized that up to half of the world’s oil and gas reserves and most of its coal reserves stand to become stranded assets – “worthless” investments.

Our university is likewise exposed to this financial risk. Researchers on our campus have documented that the University of Waterloo has lost a staggering amount by continuing to invest in fossil fuels. PhD candidate Truzaar Dordi’s analysis, using conservative estimates, found that from 2011 to 2015, by investing in fossil fuels as compared to investing in low carbon options, our university lost at least 14% on fossil fuel investments made in pension, endowment, and trust funds, totalling at least \$20 million. As Dordi notes, “Some may argue that the University should maintain its fossil fuel investments lest it lose out. However, the opposite concern – that keeping these investments is financially risky – may be the greater issue.”

The University of Waterloo currently considers Environmental, Social, and Governance (ESG) screening considerations in its investment decisions and has signed on to the United Nations Principles for Responsible Investment (UN PRI), which recognizes climate change as the highest priority of all ESG issues. Despite this commitment, the University of Waterloo is caught in a regressive financial position by continuing to invest in fossil fuels and associated industries.

Moreover, experts in sustainable management now recommend that it is not only energy holdings that are exposed because of climate change. Investments in industries that might be exposed to stranded asset risks, e.g. floods, fires, droughts, resource degradation, are also exposed through cascading effects. Exposed sectors include transportation, utilities, agriculture,

and real estate. Given global environmental and economic transformation induced by climate crisis, simply divesting fossil fuel holdings is not sufficient to make the University’s Investment Fund resilient. As such, this Investment Policy presents the latest evidence as to why the University of Waterloo should be moving toward a carbon-neutral portfolio and how to make the transition.

In the full report, we outline investment objectives and clarify why this decision is legally acceptable and financially prudent. Concerns about fiduciary duty are addressed (indeed, these are now resolved, as witnessed with the actions of other Ontario universities). The importance of maintaining the diversity of the portfolio is also explored, as is the broad impact climate change will have on a diverse set of industries.

Climate risk extends beyond the fossil fuel sector and must be considered, as must the influence of social pressure on investments. We do not propose that the University divest from all holdings in climate affected industries, rather we offer a holistic approach to divestment that would include climate risk, associated with consideration of carbon-related stranding of assets.

Given the financial evidence, the ethical imperative to act on climate change, and the University’s commitment to the UN PRI and the Responsible Investment Charter, **we recommend that the Board of Governors adopt a stepwise approach to achieve a carbon-neutral Investment Fund to improve security and increase returns.**

We caution that the longer the transition takes, the more the University of Waterloo stands to lose, therefore we propose the following five steps to carbon-neutrality over a five-year timeline:

1. Adopt Fossil Free Indexes. *(complete)*
2. Prove the Case by Divesting the Endowment Funds and Creating a Best in Class ESG and Divestment Policy. *(October 2022)*
3. Full Divestment of Carbon Underground 200 Holdings, “Tar Sands Companies” Equity Exposure, and Fossil Fuel Associated Industries. *(October 2023)*
4. Incorporate Stranded Asset Risk Measures Across the Portfolio. *(October 2024)*
5. Transition Toward a Carbon Neutral Portfolio. *(October 2025)*

PREAMBLE

Based on a partial disclosure of information from the UW Administration on June 30, 2020, we know that at least \$44.8 million of the university’s investments are in the energy sector, which incorporates fossil fuel companies, associated infrastructure companies, companies that are indirectly involved in the fossil fuel sector development. These investments include \$13.7 million from the student endowment fund. These fossil fuel companies include Canadian National Resources Ltd., CNOOC, and Suncor, which are not only known heavy CO₂ emitters, but some of which have participated in decades-long climate-denial campaigns.¹ Moreover, some of these companies are responsible for environmental destruction on a massive scale,² human rights violations,³ and corrupt practices.⁴ There are obvious environmental and ethical reasons why our University, the Canadian lead for the United Nations’ Sustainable Development Solutions Network, should not be investing in these firms.

The economic case for divestment is also very strong. Mark Carney, outgoing Governor of the Bank of England and former Governor of the Bank of Canada, recently emphasized that up to half of the world’s oil and gas reserves and most of its coal reserves stand to become stranded assets—“worthless” investments.⁵ Canadian economist, Jeff Rubin, for instance, says: “While a lack of disclosure of carbon holdings makes it difficult to assess fund-specific losses, one study estimated that the five largest funds in Ontario lost somewhere in the neighbourhood of CDN\$2.4 billion on their stock holdings of fossil fuel companies over the second half of 2014.”^{6,9} PhD candidate Truzaar Dordi’s analysis found that conservative estimates show that

¹ Hussain, 2020, <https://theintercept.com/2020/01/08/imperial-oil-climate-change-exxon/>

² Berman, 2017, <https://www.theguardian.com/commentisfree/2017/nov/14/canadas-shameful-environmental-secret-tar-sands-tailings-ponds>

³ Asia News, 2007, <http://www.asianews.it/news-en/Gas-and-oil-from-Africa-and-the-Middle-East-will-pass-through-Myanmar-9167.html>

⁴ Offshore Energy Today, 2014, <https://www.offshoreenergytoday.com/cnoocs-executive-suspected-of-bribery/>

⁵ Bank of England, 2020, <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability>

⁶ Rubin, 2017, p. 9, <https://www.cigionline.org/multimedia/case-divesting-fossil-fuels-canada>

from 2011 to 2015 the University of Waterloo has realized losses of upward of 14% on fossil fuel investments made in pension, endowment and trust funds, totalling at least \$20 million, by investing in fossil fuels as compared to investing in low carbon options.⁷ As Dordi notes, “Some may argue that the University should maintain its fossil fuel investments lest it lose out. However, the opposite concern – that keeping these investments is financially risky – may be the greater issue.”

Our university is not alone in suffering losses by continuing to invest in fossil fuels. Corporate Knight’s decarbonizer tool finds trillions in lost opportunity, perhaps most notably the Bill and Melinda Gates Foundation, which after rejecting calls to divest from fossil fuels, lost \$1.9 billion between 2012 and 2015.⁸ Markets have already begun to respond to the riskiness of fossil fuel investment—fossil fuels are becoming devalued. We can assume this will intensify as governments and industries make further progress in reducing emission to meet the internationally accepted 1.5 degree warming limit of the International Panel on Climate Change (IPCC). Indeed, we see the landscape shift daily, with the recent announcements by BlackRock, the European Investment Bank, and the University of California serving as dramatic examples. Canada’s most innovative university should not be left behind.

Universities around the world are committing to divest. Half of the universities in the UK have committed to divest – including both Oxford and Cambridge this year.⁹ Divestment is spreading rapidly across US campuses. Last year, the University of California system committed to sell its fossil fuel investments from its \$80 billion fund, citing financial risk. Canadian universities have begun to follow suit. Inspired by actions in Québec at Université Laval, the Université du Québec à Montréal, and Concordia University, the University of British Columbia’s Board of Governors unanimously resolved to act immediately to divest its endowment fund from fossil fuels in December 2019. In March 2020, University Queen's University's Board of Trustees voted to begin reducing the carbon intensity of its endowment fund investments, while in May,

⁷ Dordi, 2017, <https://fossilfreeuw.ca/uw-investments/uw-potential-losses/>

⁸ Carrington, 2015, <https://www.theguardian.com/environment/2015/nov/16/gates-foundation-divested-fossil-fuels-would-be-19bn-better-off>

⁹ Gillespie and Rathi, 2020, <https://www.bloomberg.com/news/articles/2020-10-01/cambridge-university-makes-4-5-billion-fossil-fuel-divestment-promise>

the University of Guelph committed to divestment to enact its commitment to sustainability. Canada's most innovative university should not be left behind.

We understand that the University of Waterloo currently considers Environmental, Social, and Governance (ESG) in its investment decisions. ESG are the three key factors when measuring the sustainability and ethical impact of an investment in a business or company. ESG is used to screen investments to improve the holistic sustainability of a portfolio. Through its commitment to ESG, the University has signed on to the United Nations Principles for Responsible Investment (UN PRI) which recognizes climate change as the highest priority of all ESG issues and the Responsible Investment Charter, which promotes the measurement of carbon intensity of investments and the use of meaningful targets to reduce this intensity over time. We have subsequently observed the University begin to reduce its carbon exposure, down from 2017, when \$68 million were invested in Carbon Underground 200 companies.¹⁰ (Investments in associated industries, such as pipelines, were not disclosed at the time.) As of June 30, 2020, a significant \$44.8 million remains in fossil fuel holdings and associated industries. The last time we were given notice of exposure to the Carbon Underground 200 listed companies was September 30, 2019, when a significant \$62 million were invested in fossil fuel holdings and associated industries, with approximately half of investments, \$32,777,000,¹¹ listed on the Carbon Underground 200.¹²

We, however, recognize that it is not only these holdings that are at risk from climate change. Investments in industries that might be exposed to stranded asset risks, e.g. floods, fires, droughts, resource degradation are also exposed through cascading effects. These include

¹⁰ Fossil Free UW, 2017, <https://fossilfreeuw.ca/uw-investments/>

¹¹ Macri, 2020, <http://mathnews.uwaterloo.ca/wp-content/uploads/2020/02/mathNEWS-142-4.pdf>

¹² The Carbon Underground 200 report identifies the top 100 public coal companies globally and the top 100 public oil and gas companies globally, ranked by the potential carbon emissions content of their reported reserves.

transport,¹³ utilities,¹⁴ agriculture,¹⁵ real estate,¹⁶ and water assets, including aquaculture.¹⁷ Given climate-induced, global environmental and economic transformation, simply divesting fossil fuel holdings is not sufficient to make resilient the University’s Investment Fund. Carbon neutrality is required.

Given the financial evidence, the ethical imperative to act on climate change, and the University’s commitment to the UN PRI, we recommend that the Board of Governors adopt a stepwise approach to achieve a carbon neutral Investment Fund, which includes the Registered Pension Plan, the Endowment, the Special Purpose Trust, and the Operating fund:

1. Adopt Fossil Free Indexes. *(complete)*
2. Prove the Case by Divesting the Endowment Funds and Creating a Best in Class ESG and Divestment Policy. *(October 2022)*
3. Full Divestment of Carbon Underground 200 Holdings, “Tar Sands Companies” Equity Exposure, and Fossil Fuel Associated Industries. *(October 2023)*
4. Incorporate Stranded Asset Risk Measures Across the Portfolio. *(October 2024)*
5. Transition Toward a Carbon Neutral Portfolio. *(October 2025)*

¹³ Traut et al., 2018, CO₂ abatement goals for international shipping

¹⁴ Hunt and Weber, 2018, Fossil Fuel Divestment Strategies: Financial and Carbon-Related Consequences.

¹⁵ Marsden et al., 2019, Reproducing vulnerabilities in agri-food systems: Tracing the links between governance, financialization, and vulnerability in Europe post 2007–2008; Morel et al., 2016, Stranded Assets in Palm Oil Production: A Case Study of Indonesia About the Sustainable Finance Programme; Rautner et al., 2016, Managing the Risk of Stranded Assets in Agriculture and Forestry.

¹⁶ Muldoon-Smith & Greenhalgh, 2019, Suspect foundations: Developing an understanding of climate-related stranded assets in the global real estate sector

¹⁷ Lamb, 2015, *Drying and Drowning Assets – How Worsening Water Security Is Stranding Assets.*

STATEMENT OF INVESTMENT POLICIES AND PROCEDURES

1. Priority Of Investment Objectives: Terminology Regarding Structure of Portfolio & Asset Classes

Diversification

For the sake of preventing exposure to singular crashes or events in a single industry or company, it is important to ensure an investment portfolio is well diversified across sectors and asset classes. A well-balanced investment portfolio should, therefore, be distributed across equity (shares, stocks, ETFs), debts (pooled debts financing), and cash assets. It is further important to consider diversification across industry classes to prevent excessive exposure to the risks and vulnerabilities of single industries.

As we make the case for divesting fossil fuel holdings and moving to a carbon neutral portfolio, ensuring that the new portfolio remains well diversified is imperative. It is further important to recognize that divestment in the case of fossil fuel holdings actually reduces risk and improves investment returns, both now and into the future given the threat of stranded assets. Trinks et al. demonstrates that had one divested fossil fuel holdings as far back as the 1930s, the fossil free portfolio would have overperformed that portfolio holding fossil fuels,¹⁸ while universities that have divested are seeing the benefit, like Syracuse, which has seen its funds gain by 12%.¹⁹ In 2015, Canadian research company Corporate Knights did a study on fourteen major funds with \$1 trillion USD in assets and found that over \$22 billion was lost by not moving away from fossil fuels,²⁰ while from 2010 to 2015 the coal industry lost 76 % of its value.²¹ Under performing industries should not be retained simply for diversification.

¹⁸ Trinks, A.; Scholtens, B.; Mulder, M.; Dam, L. Fossil Fuel Divestment and Portfolio Performance.

¹⁹ Sadler, 2017, <http://dailyorange.com/2017/09/divestment-fossil-fuels-not-caused-syracuse-universitys-endowment-suffer-official-says/>

²⁰ Heaps, 2015, <https://www.corporateknights.com/channels/responsible-investing/fossil-fuel-investments-cost-major-funds-billions-14476536/>

²¹ Mathisen, 2015, <https://www.theguardian.com/environment/2015/mar/24/us-coal-sector-in-terminal-decline-financial-analysts-say>

In advance of their divestment decision, UBC engaged the environmental consulting firm, Mantle 314, to investigate the links between climate change and the financial viability of investment assets, and found that the Paris Agreement would require substantial restructuring of the global economy to meet the targets. Further, UBC’s portfolio manager, IMANT, found that “it is possible to construct a portfolio with comparable financial return and risk profile while lowering emissions and climate risk profile... Practitioners and academics report that reasonably constrained portfolios are generating comparable returns to unconstrained portfolios over a longer time horizon. The overall risk of constrained and unconstrained portfolios remains similar although drivers of risk differ. Therefore, returns could be materially different in certain market environments but should converge over a longer time horizon.”²²

Fiduciary Duty

The University of Waterloo Responsible Investing Working Group (RIWG) stated in their final (2018) report that: “fiduciary duty is the single largest and most important driver that the Board should consider in assessing whether or not to include ESG factors into investment decisions.”²³ Fiduciary duty obliges fiduciaries “to abnegate all self-interest, as well as those of third parties, and focus solely on the best interests of their beneficiaries.”²⁴ The Ontario Pension Benefits Act requires plan administrators to “exercise the care, diligence and skill in the administration and investment of the pension fund that a person of ordinary prudence would exercise in dealing with the property of another person.”²⁵

The RIWG report cites fiduciary duty as a reason for rejecting divestment when made for purely ethical considerations (i.e., what it calls an “ethical screen.”). Unfortunately, the RIWG report conflated the University’s fiduciary duty administering pension plans with its duty in terms of the endowment fund. These funds differ in one critical aspect: Whereas beneficiaries of the

²² UBC Board Of Governors, April 16, 2020, Responsible Investing Update – Divestment Financial Justification

²³ University of Waterloo Responsible Investing Working Group. (2018). Report to the Board. June 5. <https://fossilfreeuwca.files.wordpress.com/2018/06/riwg-2018-06-05-board-report-regular-w-attachment.pdf>

²⁴ Rotman, Leonard I., Understanding Fiduciary Duties and Relationship Fiduciarity (November 28, 2017). McGill Law Journal, Vol. 62, No. 4, 2017, Available at SSRN: <https://ssrn.com/abstract=3078806>

²⁵ Pension Benefits Act, R.S.O., 1990, Chapter P.8, Section 22(1). <https://www.ontario.ca/laws/statute/90p08#BK27>

pension plans include thousands of current and future pensioners, the University is the sole beneficiary of the endowment fund. As the sole legal owner of the endowment fund, the University is, in its own words, “therefore responsible for all matters relating to the administration, interpretation and application of the Fund.”²⁶

As the sole beneficiary the University can unilaterally decide how to invest endowment funds. This is clearly stated in the 2018 Statement of Investment Guidelines section 2.01(d) which permits the risk/rate of return on the endowment fund to be guided by: “Special factors, if any, which UW considers significant.” Notably, the Guidelines already restrict endowment fund managers from making several types of investments (e.g., leveraged investments; short selling; pair trading; etc.) while stipulating a specific asset mix (section 2.05). The whole of Section 3 of the Guidelines detail “Permitted and Prohibited Investments.” So while divesting the endowment fund of fossil fuels investments might require the Board of Governors to add some directive language to the Statement of Investment Guidelines, there is no legal rationale preventing divestment of the endowment fund from proceeding immediately.

The RIWG report was adopted by the Board at its June 2018 meeting. While cautioning the Board to adhere to its fiduciary obligations, the RIWG concludes that: “ESG is a fundamentally useful lens for review of investments as well as for monitoring and managing current and prospective investment managers, and can be applied in support of conventional investment analysis to gauge potential rates of return and the risk of asset or capital impairment, and *is not inconsistent with fiduciary obligations and most likely supports these duties.* [emphasis added]”²⁷ We are already seeing academic institutions worldwide committing to divestment, and they have done so in line with their fiduciary duty to their beneficiaries.²⁸ Canadian academic institutions, even here in Ontario, have also begun to follow suit, finding that divestment is in line with fiduciary duty. Indeed, fourteen Canadian universities, including the University of Waterloo have

²⁶ University of Waterloo. (2018). Statement of Investment Guidelines University of Waterloo Endowment Fund. https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/oct_2018-endowment_investment_guidelines.pdf

²⁷ University of Waterloo. (2018). Statement of Investment Guidelines University of Waterloo Endowment Fund. https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/oct_2018-endowment_investment_guidelines.pdf

²⁸ Taylor, M. (2020). Half of UK universities have committed to divest from fossil fuel. Retrieved 25 May 2020, from <https://www.theguardian.com/environment/2020/jan/13/half-of-uk-universities-have-committed-to-divest-from-fossil-fuel>.

signed on to the Responsible Investment Charter which finds that: “Prudent practice now requires institutional stewards of long-term investments to adopt processes that take into account material climate-related investment risks. Failure to do so may constitute a dereliction of fiduciary duty by investment managers, who have an obligation to serve the best long-term interests of beneficiaries.”²⁹

Pension plan managers and administrators are facing rapidly evolving legal obligations to assess, manage and disclose financial risks associated with climate change.³⁰ In advance of their divestment decision, UBC received a legal opinion from Hansell LLP.³¹ The firm reported that, beyond disclosure, directors “have a clear responsibility to be informed about the risks that climate change poses for the business of the corporation they serve and to be satisfied that those risks are being appropriately managed.”³² The Hansell LLP report concludes that: “We have been asked whether directors of Canadian corporations are obliged to address climate change risk. The answer is clearly yes. Canadian courts have accepted climate change and the risks it presents as self-evident and uncontroversial, as has the investment community.”³³

Former bank governor Mark Carney has defined climate change transition risks as “financial risks which could result from the process of adjustment towards a lower-carbon economy which could prompt a reassessment of the value of a large range of assets as costs and opportunities become apparent.”³⁴ Pension plan administrators must consider these transition risks to ensure the long term financial stability and sustainability of funds both for current and future pensioners. As the risks associated with climate change become more widely known and scientifically grounded, the legal onus is shifting to fund managers and boards to justify risks associated with their fossil fuel investments which are increasingly volatile, underperforming

²⁹ Responsible Investment Charter for Canadian Universities. 2020. https://sustainability.utoronto.ca/wp-content/uploads/Investing-to-Address-Climate-Change_18-June-2020.pdf.

³⁰ Hansell LLP. (2020). Putting Climate Change Risk on the Boardroom Table. <https://law-ccli-2019.sites.olt.ubc.ca/files/2020/06/Hansell-Climate-Change-Opinion.pdf>

³¹ Hansell LLP, 2019, Putting Climate Change Risk on the Boardroom Table. <https://law-ccli-2019.sites.olt.ubc.ca/files/2020/06/Hansell-Climate-Change-Opinion.pdf>

³² Hansell LLP, 2019, Putting Climate Change Risk on the Boardroom Table. <https://law-ccli-2019.sites.olt.ubc.ca/files/2020/06/Hansell-Climate-Change-Opinion.pdf>

³³ Hansell LLP, 2019, Putting Climate Change Risk on the Boardroom Table. <https://law-ccli-2019.sites.olt.ubc.ca/files/2020/06/Hansell-Climate-Change-Opinion.pdf>

³⁴ Mark Carney, 2015, Breaking the tragedy of the horizon – climate change and financial stability, Speech by Mr Mark Carney, Governor of the Bank of England and Chairman of the Financial Stability Board, at Lloyd’s of London, <https://www.bis.org/review/r151009a.pdf>

and/or risk becoming worthless as stranded assets. This is of particular concern for Canadian funds which are acutely susceptible to the stranding of assets due to their oil sands exposure. Currently, 99.85% of the University’s Energy Sector holdings are in companies that work predominately in the Alberta oil sands and have been recently hard hit by energy sector volatility and COVID-19.

Investments in carbon-heavy holdings are proving to be a riskier investment strategy in the short term as well, which may end up breaching the fund’s fiduciary duty.³⁵ Between September 30th, 2019 and June 30, 2020, the value of the University’s energy holdings dropped from \$62 million to \$44.8 million. We are lucky to have professors working at the University of Waterloo who are global experts in sustainable finance. Recent empirical studies led by Professor Olaf Weber have made a convincing case that “fossil fuel divestment makes sense from a financial point of view even without any ethical justification.”³⁶

Equity Investing

Equity investing refers to the holding of shares issued by a company. Equity ownership allows shareholders to vote on strategic decisions of the firm, given their degree of ownership.

Large shareholders thus influence corporate governance through, for example, shareholder-sponsored proposals and shareholder voting. Institutions have used this reasoning as an argument against divestment, reporting that they can make better change inside the organization. Another common argument for this position is that one is not able to influence corporate governance if one does not have ownership in the company. However, those with significant ownership often favour continued business as usual, fail to act even in the face of scientific evidence, and may even contribute to the spread of disinformation in efforts to protect their companies. “The five largest publicly-traded oil and gas majors (ExxonMobil, Royal Dutch Shell, Chevron, BP and

³⁵ Yunker, Z., Dempsey, J., & Rowe, J., 2018, Canada’s Fossil-Fuelled Pensions The Case of the British Columbia Investment Management Corporation, Canadian Centre for Policy Alternatives, Retrieved from <https://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2018/06/CCPA-BC%20BCI%20FINAL.pdf>

³⁶ Hunt, C., & Weber, O., 2019, Fossil Fuel Divestment Strategies: Financial and Carbon-Related Consequences. *Organization & Environment*, 32(1), 41–61. <https://doi.org/10.1177/1086026618773985>

Total) have invested over \$1 billion of shareholder funds in the three years following the Paris Agreement on misleading climate-related branding and lobbying. [...] [These] five oil majors are forecast to put a mere 3% of their 2019 capital expenditure towards low carbon technologies whilst US\$110.4 billion will be put into more oil & gas.”³⁷

Active vs. Passive Investments

Active Investments are those that require a portfolio manager to regularly monitor holdings, and to trade in response to market shifts, in an attempt to beat the market. Passive Investments are usually in the form of index funds or other mutual funds. They are less frequently bought or sold as the passive investor tracks a market index.

Currently, approximately 50% of the University of Waterloo’s holdings are active funds, including the \$44.8 million in fossil fuel and associated industry holdings. This is relevant as it is less cost-prohibitive to divest from single corporations and reinvest into lower carbon alternatives than it would be to shift to low-carbon passive funds, making it easier to meet our divestment ask.

2. Climate Risk

Stranded Assets

Anticipating legal, material, international or local restrictions on the amount of carbon emissions relative to a global carbon budget, many untapped reserves will have to be left in the ground, and mines or rigs might have to go offline early. Oil and coal companies are valued (as represented by market cap and share price) not only by their annual production but by proven reserves.

³⁷ Influence Map, 2019, <https://influencemap.org/report/How-Big-Oil-Continues-to-Oppose-the-Paris-Agreement-38212275958aa21196dae3b76220bddc>.

Resource extraction firms are valued inclusive of these untapped future reserves, and thus the valuations are overpriced and imprecise. Many companies hold more reserves than is burnable within the entire global carbon budget. As of 2015, there are at least 2,795 billion tons of CO₂ reserves in the form of oil, coal, and natural gas. In order to meet our Paris Climate Agreement commitments and to follow IPCC recommendations³⁸ to offer a chance to remain below 2° of warming, the remaining carbon budget is 565 billion tons of CO₂. This means four fifths of existing reserves will become stranded assets. The budget to aim to 1.5 degrees would be smaller, closer to 495 billion tons of CO₂.³⁹ What we are seeing now is that many of these companies are holding – and are valued based on – unusable, stranded assets, and as such their shares will reflect this. Not only does this apply to carbon-heavy securities in the energy sector, but impacts from climate change, such as coastal flooding, could render much beachfront property as stranded assets as well, influencing real estate indexes and other securities.

Carbon Risk

“Divestment should be understood not only as a radical strategy advocated by activist groups but also as a way to mitigate risk”.⁴⁰ Carbon-intensive assets, particularly coal and oil assets, represent a much higher risk to investment portfolios. Due to climate change, they are at physical risk, with natural disasters and intensified problems as seen with Covid-19, demand for oil and the ability to produce it is at risk. Increased frequency and intensity of natural disasters, such as the fires in Fort McMurray, Alberta, will indeed harm the normal functioning of many extractive companies and thus harm an investment portfolio, which includes their securities.

To address climate change, governments have set nationally determined contributions to reducing their greenhouse gas emissions and thus these plans pose both regulatory and transition risk. Transition towards lower-carbon energy systems both in Canada and across the world means reduced demand for oil, and thus a shift away from the profitability of oil companies and

³⁸ IPCC, 2018, <https://www.ipcc.ch/sr15/chapter/spm/>.

³⁹ <https://carbontracker.org/carbon-budgets-where-are-we-now/>.

⁴⁰ Weber & Kholodova, 2017, <https://www.cigionline.org/publications/climate-change-and-canadian-financial-sector>.

those in associated industries. The global pandemic's current effect on demand forecasts has certainly shown us a glimpse of what that will look like. This transition is likely to be reinforced by regulatory policies that require reduced emissions to meet international obligations, such as the Paris Agreement. Not only will there be an organic reduction in use of fossil fuels through the green energy transition, but regulation will further shift the field, increasing the likelihood of carbon reserves becoming stranded assets.

Not specifically tied to climate change, the oil industry, and thus investment in it, is quite risky for second reason. In a world where many countries are identified as petrostates and rely on production and sale of their oil assets for a significant portion of their GDP, the market (in terms of production volume and supply) is dictated by strategies of competing blocs, such as OPEC. As we have seen with the price war between Saudi Arabia and Russia in early 2020, it is a volatile market and not likely to become any less risk-laden in the long term.

Social Pressure

The social pressure from divestment groups such as [350.org](https://www.350.org) pose another transition and social risk to UW's carbon-heavy securities. Trading volume trends can influence whether or not a security (or type of security) should be deemed a strong or poor investment. For several years now, divestment of carbon-heavy fossil fuel (typically coal producing and oil exploration companies) has been increasing. Notable divestments by educational institutions, governments, including a growing list of cities that includes Vancouver, New York, and Cape Town,⁴¹ and other groups, have led to an approximate value of \$14.5 trillion for institutional divestment, with individual investment reaching \$5.2 billion.⁴² Major investors, including the Norwegian Sovereign Wealth Fund, Black Rock, and the European Investment Bank, have all begun to follow suite, implementing plans to phase out fossil fuel investments. The more institutions join this trend, the larger a sell-signal. All the while, even without mass divestment there are

⁴¹Mayors of 12 Major Cities Commit to Divest From Fossil Fuel Companies, Invest in Green and Just Recovery from COVID-19 Crisis, 2020, <https://bit.ly/3lW7l1T>.

⁴² What kinds of institutions are divesting? N.d. <https://gofossilfree.org/divestment/commitments/>.

increasing hurdles for the sector to pass, such as carbon footprint disclosure reporting and social movements advocating against new large-scale developments and expansion.

3. Moving to a Carbon Neutral Portfolio

The science on climate change is clear and convincing – and impacts are already being experienced. Not only do we face the material toll of climate change, globally, we are seeing a shift in economic practices as federal governments move to institute policy to bring themselves into compliance with their international obligations to meet the Paris Climate Agreement. Notwithstanding the ethical imperative, a diverse group of investors have begun to act on financial imperative. Spurred by changing norms, policy commitments and other government regulations, the growing unwillingness of the insurance sector to support investments subject to physical risk, new technologies becoming increasingly competitive, and the potential for cross-border tariffs and litigation that may be imposed on partners not abiding by their international climate commitments, partners have begun to divest their fossil fuel holdings. See, for example, the decision by Norway’s largest pension fund to divest its holdings in four oil sands companies (two of which the University currently holds: Cenovus and Suncor).⁴³ As a result, company stocks begin to collapse, ultimately leading to assets becoming stranded.⁴⁴

While the University of Waterloo still holds investments in over a dozen fossil fuel companies that are subject to growing climate risk, following its commitment to adhere to the UNPRI, the University has begun increasingly to recognize climate risk, witnessed by its adoption of new investment managers. *Fiera Capital* was engaged in 2019, while the newly implemented UWaterloo Managed Fund was initiated in early 2020. Both parties exclude energy companies from their holdings, meaning approximately one quarter of the University of Waterloo’s equity funds are currently managed by firms with no energy exposure, demonstrating how the University is moving in the right direction.

⁴³ Healing, 2019, <https://www.bnnbloomberg.ca/norwegian-fund-excludes-four-canadian-firms-as-it-backs-away-from-oil-sands-1.1327753>.

⁴⁴ Nathwani, 2020, Divestment, Disclosures and Transition Risks <https://www.balsillieschool.ca/coronavirus-climate-and-a-clean-energy-transition-is-resiliency-achievable/>.

While we are grateful to see the University exploring fossil fuel-free investment options, we recognize that it is not only fossil fuel companies, and their associated infrastructure that are at risk from climate change. Investments in industries that might be exposed to physical risks, e.g. floods, fires, droughts, resource degradation are also exposed. These include transport, utilities, agriculture, real estate, and water assets, including aquaculture.⁴⁵ Note, this is not to say the University should divest from all these industries, rather that a holistic approach to divestment would include climate risk, associated with consideration of carbon-related stranding of assets.

We caution that the longer the transition takes the more the University stands to lose. As we move to carbon neutrality, we adopt the definition of this term in the context of carbon intensity, as explained by Hunt and Weber in their 2019 study, *Fossil fuel divestment strategies: Financial and carbon related consequences*: “Carbon intensity is a wide-spread method used in academic studies to evaluate carbon emissions compared with macroeconomic and financial indicators.” It measures volume of carbon emissions per million dollars of revenue (carbon efficiency of a portfolio), expressed in tons CO₂e/\$M revenue.

Portfolio Carbon Intensity:

$$\left(\frac{\text{Constituent's Carbon Emissions}}{\text{Constituents Sales}} \right) * b$$

Where b = industry weight ^{46p.13}

(See the full article for a more detailed explanation.)

Hunt and Weber are two of many voices in their field who find that investment strategies that adopt “stricter divestment approaches, excluding more fossil fuel related stocks, have higher risk-adjusted returns and a lower carbon intensity than less strict approaches.”^{47p.22} As such, for ethical and financial reasons we urge the University of Waterloo to adopt a stepwise approach to

⁴⁵ See Preamble for references

⁴⁶ Hunt and Weber, 2018, *Fossil fuel divestment strategies: Financial and carbon related consequences*.

⁴⁷ Hunt and Weber, 2018, *Fossil fuel divestment strategies: Financial and carbon related consequences*.

achieve a carbon neutral portfolio with all possible expediency. This will reduce risk and take advantage of the reduced prices on alternative assets available at this current moment.

As such, we propose the following:

A Stepwise Approach for the University of Waterloo to Achieve Carbon Neutrality

1. Adopt Fossil Free Indexes.

The University has already achieved this step through its work with *Fiera Capital* and the UWaterloo Managed Fund.

Timeline:

December 2019: Complete.

2. Prove the Case by Divesting the Endowment Funds and Creating a Best in Class ESG and Divestment Policy.

2.1. The University of Waterloo divests its active investments in an endowment fund, for example, the Waterloo Environment Students Endowment Fund, according to the Carbon Underground 200 and “Tar Sands Companies” Equity Exposure lists,⁴⁸ and fossil fuel associated industries. (As of June 30, 2020, energy sector exposure in the active equity portfolio is 3.09% of all endowment funds, compared to 1.57% of the pension fund and 0.90% of the special purpose trust.) It is important to note that the Waterloo Environment Students Endowment Fund’s Board of Directors voted to divest its funds in 2017, and would like to see this happen.

Timeline:

⁴⁸ To be created with reference to the Rainforest Action Network’s Banking on Climate Change Report Fossil Fuel Finance Report. <https://www.ran.org/bankingonclimatechange2020/>

October 2021: The Board of Governors directs investment managers to move the WESEF Endowment Funds into the Fiera or Waterloo Managed Funds, as per the WESEF 2015 divestment vote.

2.2. UW creates a best in class ESG and Divestment Policy that systematically screens out the worst performers. This policy incorporates the Carbon Underground 200 list and “Tar Sands Companies” Equity Exposure, and fossil fuel associated industries.

a) Funds will use an exclusion list based on the Carbon Underground 200 and “Tar Sands Companies” Equity Exposure. Any company included on the Carbon Underground 200 and “Tar Sands Companies” Equity Exposure reports would be ineligible for the Fund.

b) The Carbon Underground 200 report identifies the top 100 public coal companies globally and the top 100 public oil and gas companies globally, ranked by the potential carbon emissions content of their reported reserves. The Carbon Underground 200 list is maintained by the independent third-party provider, Fossil Free Indexes LLC, and is revised quarterly.

c) Funds will also not invest in any issuers involved in exploring for, extracting, processing, and transportation of coal, oil or natural gas. A list of fossil fuel associated industries will be created with reference to the Rainforest Action Network’s Banking on Climate Change Report.⁴⁹

Timeline:

October 2022: The Board of Governors adopts a best in class ESG and Divestment Policy.

2.3. The University of Waterloo divests all endowment funds according to the ESG and Divestment Policy.

⁴⁹ Rainforest Action Network, 2020, Banking on Climate Change Fossil Fuel Finance Report. <https://www.ran.org/bankingonclimatechange2020/>

Timeline:

October 2022: The Board of Governors directs investment managers to divest all endowment funds.

2.4. Alumni Donations/Social Fund. Akin to a practice at UBC, UW offers alumni the opportunity to have their contributions placed in a fund that supports low carbon innovations to prove these portfolios are viable. Examples would include the DivestInvest movement, which asks those who have signed the pledge to divest fossil fuel holdings and re-invest five percent of their holdings in renewable energy investments.⁵⁰

Timeline:

October 2022: The Board of Governors establishes Alumni Donations/Social Fund based on the ESG and Divestment Policy.

3. Full divestment according to the ESG and Divestment Policy.

The Board of Governors directs investment managers to divest all pension and trust funds according to best in class ESG and Divestment Policy

Timeline:

October 2023: The Board of Governors directs investment managers to divest all pension and trust funds according to best in class ESG and Divestment Policy.

4. Understand Stranded Asset Risk and Incorporate Stranded Asset Risk Measures Across the Portfolio.

The University of Waterloo begins to educate itself and its fund managers on the risk of stranded assets that exist beyond strict energy sector considerations. Here the University will consider exposure to physical risks, e.g. floods, fires, droughts, resource degradation,

⁵⁰ DivestInvest, 2019, <https://www.divestinvest.org/>.

and the various sectors subject to this vulnerability, such as: transport, agriculture, real estate, water assets, etc., and will shape a carbon neutral policy that addresses this exposure, which includes continuous monitoring for new exposures. The policy will also be informed by learnings from the Alumni Donations/Social Fund that will inform investments in low carbon innovations.

Timeline:

October 2024: The Board of Governors establishes a working group to create a best in class Carbon-Neutral Investment Policy.

5. Transition Toward a Carbon Neutral Portfolio.

The University moves to implement its Carbon-Neutral Investment Policy, divesting exposed holdings, and updating the policy and portfolio. This is an iterative process that will require regular revision as the global economy is restructured and the environment continues to change.

Timeline:

October 2025: The University of Waterloo advises its fund managers to implement the Carbon Neutral Investment Policy, which is revised at regular intervals given changing global economic and environmental conditions.

Appendix A: The University of British Columbia (UBC) Sustainable Future Pool

The University of British Columbia (UBC) Sustainable Future Pool

Statement of Investment Policies and Procedures

April 1, 2019

See attached document (or here:

https://bog3.sites.olt.ubc.ca/files/2019/05/9_2019.06_Endowment-and-SFP-SIPP.pdf) for the University of British Columbia’s policy that directs their Sustainable Future Pool. The document constitutes the Statement of Investment Policies and Procedures applicable to the assets that make up the Pool. The purpose of this Policy is to define the governance structure for the Pool, and formulate the principles, guidelines and monitoring procedures to manage the Pool’s assets.

The Pool has two objectives:

1. (a) maximize the rate of return at an appropriate level of risk in order to:
 1. (i) honour the wishes of the donors of endowed funds;
 2. (ii) provide cash flows and capital appreciation that are sufficient to support the Pool’s current spending objectives plus inflation and expenses; and
 3. (iii) preserve the capital and purchasing power of each endowment fund within the Pool in order to provide the same level of support in perpetuity; and
2. (b) incorporate non-financial objectives to materially lower CO₂ emissions, including the objective of reducing or excluding investments in companies that own fossil fuel reserves.

Appendix B: An Open Letter to the Boards and Administrators of Educational Institutions Across Canada

September 8, 2020
Divest Canada Coalition

An Open Letter to the Boards and Administrators of Educational Institutions Across Canada

We, the undersigned students, alumni, faculty, staff and members of the public, call on all the boards and administrators of educational institutions across Canada to take real leadership in the face of the climate crisis by fully divesting all investment funds (e.g. endowment funds) of their institutions from the fossil fuel industry and reinvesting in sustainable and just alternatives by 2025. For the past 8 years, students around the world have been calling on educational institutions to end their investments in the industry primarily responsible for driving the climate crisis. Unfortunately, Canadian educational institutions have responded with negligence and delay, claiming climate leadership while propagating half-measures and false solutions. For example, the [Investing To Address Climate Change Charter](#), released and signed by numerous Canadian universities this summer, is not only inadequate, but pretends to address the climate crisis while deflecting responsibility from taking real action.

We call on Canadian educational institutions to comply with the following demands, in consultation with their local divestment groups:

1. **Divest from the past:** Commit immediately to fully divesting from companies involved in the extraction, processing and transportation of fossil fuels and ensure all funds are re-allocated by 2025. Initiate divestment campaigns from other harmful industries, including police foundations, private prisons, arms manufacturers, and any corporation that, through their operations, violate Indigenous peoples' right to free, prior, and informed consent, as outlined in the [United Nations Declaration of the Rights of Indigenous Peoples](#).
2. **Reject false solutions:** Recognize that the incorporation of environmental, social, and governance factors (ESG), as well as the simple reduction of the “carbon intensity” of an institution’s investment portfolio is an illegitimate alternative to full divestment. Educational institutions must supplement these insufficient responsible investing practices with full divestment from fossil fuel companies.
3. **Invest in the future:** Take meaningful leadership in the adoption of a Canadian [Just Recovery](#) by investing at least 5% of investment funds in community projects that advance racial, economic, environmental and social justice.

Educational institutions are supposed to prepare us for our futures. Instead, they are actively financing their destruction. By remaining invested in these industries, Canadian educational institutions are choosing to stand with corporations and their exploitative business models over the wellbeing of people and the planet. It is well beyond time for institutions in Canada to take real action on the climate crisis.

We acknowledge that a few universities have already started moving in this direction, with the [Université Laval](#), [Concordia University](#), [University of British Columbia](#), and the [University of](#)

[Guelph](#) committing to full fossil fuel divestment. It's time for the rest of Canada's schools to follow their lead.

Divest From The Past

The climate crisis is wreaking havoc worldwide, exacerbating extreme weather events, poverty, food shortages, forced displacement, armed conflict, and other disasters worldwide. These impacts amplify existing inequalities, disproportionately hurting the most marginalized communities. The fossil fuel industry is the primary driver of the climate crisis, having knowingly destabilized the planet's ecological balance for decades. The fossil fuel industry is also one of the biggest perpetrators of racial and colonial violence with a long history of [forcing Indigenous peoples from their lands](#), [polluting](#) the air, land, and water of Indigenous, Black, and People of Colour (IBPOC), and [financing the colonial police force](#).

In order to avoid irreversible climate catastrophe, we must keep [at least 80% of known fossil fuel reserves in the ground](#). Instead of winding down production to a safe trajectory, fossil fuel firms are continuing to push for new pipelines, new mines, new drilling projects and exploration of new reserves. Global fossil fuel production is heading for [50% more than is consistent with 2°C of warming over pre-industrial levels and 120% more than 1.5°C by 2030](#), spelling disaster for our planet. Fossil fuel companies have spent the past five decades obstructing meaningful government action on climate change by pouring billions of dollars into [misinformation campaigns](#) and [lobbying](#).

In less than a decade, [1,244 institutions have](#) shown moral leadership in standing up to the biggest climate criminals by [divesting over \\$14 trillion from fossil fuels](#). They've also made a prudent financial choice. [Fossil fuel investments are fundamentally risky and overvalued](#). For one thing, these companies are valued on the assumption that they will extract and burn [approximately five times more fossil fuels](#) than the climate can handle. If we are to save our planet from catastrophic climate change, asset owners will have to write off [\\$20 trillion in stranded assets](#). Ongoing structural risks to the fossil fuel sector include rising extraction costs, low and even at times [negative](#) oil prices, the competitiveness of alternative energy sources, litigation, public opposition, and the growing divestment movement. Due to the poor performance of fossil fuel companies, investments have incurred significant losses for years. BlackRock, the world's largest asset management firm, made the decision to [divest from coal in 2019](#) after [an estimated \\$90 billion loss from investment in fossil fuels](#). Portfolios that screen out fossil fuels, on the other hand, consistently perform [equal to — if not better than — portfolios that do not](#). Trustees have a fiduciary duty to manage long-term risks of their endowments. Investing in fossil fuels is [a direct violation of that duty](#) and [could result in trustees being held liable](#).

Globally, fossil fuel corporations constitute an enormously powerful, multi-trillion dollar industry. In order to transition towards a just and sustainable future, we will need to break the hold the fossil fuel industry has over our political, financial, educational, social and cultural institutions. We are looking to our educational institutions to harness their intellectual and moral authority to help remove social license from this industry. Full divestment by such institutions will send a clear, unapologetic signal to policymakers and broader society that the power of this industry must be reigned in.

Reject False Solutions

In June 2020, the University of Toronto and McGill University announced the [Investing to Address Climate Change](#) charter, signed by 13 other Canadian universities, in an attempt to signal action on climate change. The charter called on signatories to adopt frameworks of responsible investment by incorporating environmental, social, governance (ESG) factors into their investing practices and measuring the carbon intensity of investment portfolios with target reductions. These investing practices are misleading and flawed, being used by investors to allow for continued investment in some of the largest fossil fuel corporations. When it comes to ESG, ESG ratings are not standardized or regulated. Rating firms use different methodologies and metrics, leading to [inconsistent](#) and widely [contradictory](#) ratings. [This allows firms to](#) claim they are leaders in an ESG area while not adhering to consistent comparative standards. In some cases, a company's score is calculated [relative to its global industry peer group](#), meaning that decent ratings can be given to a firm that simply performs better than the average of their peers — even if average standards are low.

“Low carbon” investing commitments are also misleading. Investment carbon footprinting methodologies [only take into account direct emissions \(scope 1 and 2\), excluding the emissions of the product “downstream” \(scope 3\)](#). For example, because [approximately 99 percent of life-cycle emissions](#) from coal occur during combustion, these emissions are excluded from a coal mining company's investment carbon footprint. Thus, fossil fuel extraction, transportation and refining companies [may be considered “low carbon” by these carbon accounting methods](#). In 2016, when UBC initially proposed a “low carbon” fund, [the fund was projected to include companies like Enbridge, Shell, ExxonMobil and Kinder Morgan](#). These companies are clearly not low carbon, for the reasons outlined in this letter. Any financial criteria that does not expunge these corporations from the institution's investment portfolio has fundamentally failed as a strategy to reduce greenhouse gas emissions. Furthermore, fossil fuel extraction and transportation companies are some of the leading culprits in land grabs and injustices against Indigenous communities. It is [well documented that fossil fuel project ‘man camps’ are directly linked to the Missing and Murdered Indigenous Women and Girls epidemic](#). By continuing investment in these companies, educational institutions are directly financing genocide against Indigenous peoples and violence against women, girls, and 2-spirits.

There is no credibility to the argument that shareholder engagement with fossil fuel companies can compel these companies to transition to clean alternatives. Their very business model depends on exceeding the warming limit of 2°C. Renewable energy makes up [only 1% of fossil fuel companies' capital expenditure](#), making it apparent that these corporations are not transitioning at the pace necessary to meet global climate targets. Divestment is the only reasonable responsible investment approach when it comes to these companies.

Invest in The Future

Our present moment is wrought with intersecting crises — a global climate emergency, a pandemic, ongoing racial and colonial violence, and an incoming global recession that will exacerbate existing economic and social inequalities. Across Canada, communities have been

calling on leaders and institutions to [Build Back Better](#) and embark on a [Just Recovery](#) as we collectively emerge from COVID-19. The federal government has responded to these calls with programs like CESB, CERB, and EI benefits, demonstrating that they are able to mobilize resources to the scale demanded by these crises. However, these income support measures are only a beginning, and have been insufficient in several regards (for example, with respect to [people with disabilities](#) and [migrant workers](#)). We call on our leaders and institutions at all levels to work together to move us towards a future that guarantees safety and security for all and centres justice, equity and Indigenous sovereignty.

By [allocating investment capital into local community projects](#), such as clean energy, safe and affordable housing, sustainable local agriculture, community wealth operatives and worker-owned businesses, [educational institutions can play a role](#) in shifting our society from an extractive to a [just and regenerative economy](#) — one that works for all and sustains us for the future. In line with national calls to defund the police and abolish the prison-industrial complex, we have an opportunity to [re-allocate wealth](#) towards communities that have long been exploited, especially Black and Indigenous communities.

We call on our educational institutions to think about what type of future they are preparing us for. This is their opportunity to invest in a just and sustainable future for their students and to divest from an unjust and unsustainable status quo. It is not an exaggeration to say that the fate of humanity lies in how we collectively respond to this moment.

Signed,

Climate Action Carleton/ of Carleton University
Climate Justice Climatique uOttawa / of the University of Ottawa
Divest Dal / of Dalhousie University
Fossil Free Lakehead/ of Lakehead University
Divest McGill/ of McGill University
Climate Action of the University of Alberta/ of the University of Alberta
Climate Justice UBC (formerly UBCc350) / of the University of British Columbia
Fossil Free Guelph / of the University of Guelph
Divestment and Beyond, Leap U of T, The School of Environment / of the University of Toronto
Divest Sheridan/ of Sheridan College
SFU350/ of Simon Fraser University
UdeM Sans Pétrole/ of de Université de Montréal
Divest MTA/ of Mount Allison University
Students for Direct Action/ of the University of Calgary
UTS Sustainability and Environmental Action Committee / of the University of Toronto Schools
Divest UVic / of the University of Victoria
Fossil Free UWaterloo/ of the University of Waterloo
Divest UWinnipeg / of the University of Winnipeg
Climate Crisis Coalition/ of Western University

Appendix C: Fossil Free UWaterloo Petition and Signatory List

University of Waterloo - divest fossil fuels and invest in a greener future

<https://www.change.org/p/university-of-waterloo-divest-from-fossil-fuels-and-invest-in-a-greener-future>

Did you know that the University of Waterloo is currently investing our money in fossil fuel companies that are contributing to the climate emergency?

Every year when students pay tuition, we contribute to endowment funds. The University then invests these funds in fossil fuel companies. Based on a partial disclosure of information from the UW Administration on September 30, 2019, we know that **at least \$61 million of the university's investments are in the energy sector, which incorporates fossil fuel companies, pipeline companies, and companies that are indirectly involved in the fossil fuel sector development. These investments include \$20.3 million from the student endowment fund!**[1]

These investments are happening at a time when the effects of global climate crisis are clearly visible - sea ice is disappearing, fires are raging, ocean levels are rising, and droughts and heat waves are longer and more intense.[2] Climate change is having devastating effects on our environment – and on us! Around the world already nearly 1,000 children are now dying every day because of climate change, and the annual death toll stands at 400,000 people worldwide.[3]

Often we feel like there is little we can do as individuals to contribute to a solution – but this is an easy opportunity for us to act! Sign our petition urging the University of Waterloo to divest fossil fuel holdings!

The great thing about the divestment movement is that it is an action that allows all of us to win. It makes environmental and ethical sense to divest (take our money out of fossil fuel companies) – and with our economy transitioning it also makes financial sense. We see the landscape shift daily, with the recent announcements by BlackRock, the European Investment Bank, and the University of California demonstrating how they are moving away from fossil fuels.

On paper, the University of Waterloo has committed to including environmental, social and governance principles in its investing practices, **yet \$61 million is still invested in companies that are destroying our planet and devastating our future.** These investments continue even though we know they are losing us money. From 2011 to 2015 the University of Waterloo realized losses of upward of 14% on fossil fuel investments made in pension, endowment and trust funds, totalling at least \$20 million, by investing in fossil fuels as compared to investing in low carbon options.[4] As Dordi notes, “Some may argue that the University should maintain its fossil fuel investments lest it lose out. However, the opposite concern – that keeping these investments is financially risky – may be the greater concern.”

Corporate Knight's decarbonizer tool finds trillions in lost opportunity, perhaps most notably the Bill and Melinda Gates Foundation, which after rejecting calls to divest from fossil fuels, lost \$1.9 billion between 2012 and 2015.[5] Yet, our funds continue to be invested in companies like Imperial Oil and Suncor.[1] With these choices, we will continue to lose as the market continues

to shift, while universities that have divested and reinvested wisely are seeing the benefit, like Syracuse, which has seen its funds gain by 12%.[6]

As University of Waterloo’s students, staff, faculty and alumni we urge the University of Waterloo to divest our endowment fund from fossil fuel industry holdings, and invest in greener options.

As of March 2020, funds valued at over \$14 trillion have committed to selling off fossil fuel assets – ranging from the world’s biggest sovereign wealth fund to other universities.[7] At home, the University of British Columbia, Laval, Concordia and UQAM are leaders choosing to take action. Canada’s most innovative university should not be left behind. Ethically, socially and environmentally, it is not responsible to keep our money in fossil fuel producing companies. It doesn’t make good economic sense either. For our personal, economic and climate futures we need UW to make better choices!

University of Waterloo, we call on you to continue to be innovative, to show global leadership in this energy transition – and to make this choice with integrity. Choose greener options for all our futures!

How we invest our money reflects our values. UW has committed to promoting integrity as a core value of our campus community. Our university must make decisions that reflect our values and priorities – to be in *Concordia cum veritate*, "In Harmony with Truth". Climate change is a truth that cannot be denied – and that requires immediate action.

The University of Waterloo signed on to be one of one the Ontario Universities Committed to a Greener World; we call on the Board of Governors live up to commitment, with the objective of transforming our school into a model of environmental responsibility.[8] By changing the way our money is invested, we can change climate future! It is time for the University of Waterloo to bring our practice in the world in line with what we learn in the classroom.

Join us in this call – sign this petition asking UW to remove our money currently invested in fossil fuel companies and make cleaner, healthier and more environmentally and socially responsible investment decisions!

This petition is brought to you by Fossil Free UW <https://fossilfreeuw.ca/> – a group of concerned students, staff and faculty from across the campus.

In solidarity with the 68 University of Waterloo faculty who wrote to President Hamdullahpur and Members of the Board on February 1st, 2016, Fossil Free UWaterloo is working to ensure that the President and Board assess the financial risks posed by climate change to the University of Waterloo’s endowment and pension plans, commit to no new investment in fossil fuels, and develop a strategy to divest the university from holdings in the fossil fuel industry. We call on them to ensure that these funds are divested completely in the next five years.

- [1] University of Waterloo, 2019, <http://mathnews.uwaterloo.ca/wp-content/uploads/2020/02/Energy-Exposure-Report-as-at-Q3.pdf>
- [2] NASA. (2017). The consequences of climate change: <https://climate.nasa.gov/effects/>
- [3] DARA. (2017). Climate Vulnerability Monitor: <http://daraint.org/wp-content/uploads/2012/09/CVM2ndEd-FrontMatter.pdf>
- [4] Dordi, 2017, <https://fossilfreeuw.ca/uw-investments/uw-potential-losses/>
- [5] Carrington, 2015, <https://www.theguardian.com/environment/2015/nov/16/gates-foundation-divested-fossil-fuels-would-be-19bn-better-off>
- [6] Divestment from fossil fuels has not caused Syracuse University’s endowment to suffer, official says. (Sept 26, 2017): <http://dailyorange.com/2017/09/divestment-fossil-fuels-not-caused-syracuse-universitys-endowment-suffer-official-says/>
- [7] Fossil Free. (n.d.) Divestment Commitments: <https://gofossilfree.org/commitments/>
- [8] Council of Ontario Universities (2009): <http://cou.on.ca/about/more/commitment-to-sustainability/>

Signatory List

1684 Signatures as of October 16, 2020

Name	City	Postal Code
A Downey	London	N6E
A Maz	Mississauga	L5B
Aalia Khan	Waterloo	N2L
Aarsh Trivedi	Waterloo	N2L
aasdeep gujral	Waterloo	N2L
Abbey Tiernan	Brampton	L6X
Abby Bailon	Brampton	L6Y
Abby Guzman	Fredericksburg	22408
abdallh mahmood	Waterloo	N2L
Abigail Vicente	Brampton	L6p 2j5
Abigail Willms	Fonthill	L0S 1E0
Abram Armanious	Mississauga	L5C3T5
Adam Jurgens	Waterloo	N2L
Adam Kaluba	Cincinnati	45249
Adam Osmond	Waterloo	N2L
Adrian Chiu	Toronto	m5b2k3
Adriana Deruyte	Saint Catharines	L2N
Adrien Fera	Kitchener	N2A

Aelish Foley	Waterloo	N2L	
Afnan Alsakani	Kitchener	N2M	
Afsheen Mahmood	Brooklyn		11203
Ahmad Chaudhry	Brampton	L6R	
Ahmed Hashem	Jeddah		
Aidan Mitchelmore	Woodville	K0M2T0	
Aiman Fatima	Waterloo	N2L	
Aiman Siddiqui	Milton	L9T	
Akram Mirahmadi	Kitchener	N2N	
Akshar Goyal	Waterloo	N2L	
Akshay Jogoo	Sudbury	P3N	
Akshay Kapoor	Waterloo	N2L	
Alana Cristante	Waterloo	N2L 6J5	
Alana Guevara	Waterloo	N2L	
Albee Tse	Richmond Hill	L4C	
Alece Katan	Waterloo	N2L 6P5	
Aleeena Ahmed	Waterloo	N2L	
Aleksandra Raznatovic	Waterloo	N2T 2S5	
Alena Sloan	Pembroke	K8A8K1	
aleric ryan	Westville	B0K	
Alessandra Piombini			48034
Alessia Agazzi	Vertova		24029
Alex Cardy	Kitchener	N2B2W2	
Alex Luther	Waterloo	N2L	
Alex Pepetone	Waterdown	L8B	
Alexa Legge	Waterloo	N2L	
Alexander Sullivan	Waterloo	N2L0J8	
Alexander Watson	Brisbane		4075
ALEXANDRIA TESTANI	Cambridge	N1R	
Ali Babar	Richmond Hill	L4C	
Ali Mansour	Montréal	H3A	
Ali Shariatmadari	Markham	L3P	
Alice Baker	Detroit		48235
Alice Lau	Waterloo	N2L	

Alicia Cole	Kitchener	N2E
Alicia Cowan	Ontario	N2L3G1
Alicia W	Toronto	M5B
Aliena Hoskins	Toronto	M2N
Alina Khan	Mississauga	L5N
Alisha H	Goderich	N7A
Alisha Ma	Waterloo	N2L
Alison Elliott	Toronto	M3J
Alison Fong	Scarborough	M1W
Alison Kwok	Ottawa	K2P
Alison Law	Laval	H7K
Alison Mair	Cambridge	N1R
Aliya McNeil	Waterloo	N2L
Aliyah Khan	Brampton	L6V
Allan Galli	Waterloo	N2L
Allan Yu	Richmond Hill	L4B
Allegra Gracile	Toronto	M2N
Allison Elgie	Dresden	N0P1MO
Allison Ho	Kitchener	N2M
Allison Irvine	Kitchener	N2G
Aloisian Maine	Markham	L3R
Alvin Huang	Waterloo	N2V
Alyssa Ford	Kitchener	N2E
Alyssa Randall	Vancouver	V5L
Amanda Bichel	Toronto	M5R
Amanda Disher	Toronto	M6L
Amanda Hooykaas	Kitchener	N2M 5K4
Amanda Jones	Waterloo	N2L
Amanda Morin	Toronto	M6H
Amanda Ward	Peterborough	K9J 5R4
Amanda Watkins	Toronto	M6P
Amanda Young	Fergus	N1M2Y2
Amani Amstutz	Waterloo	N2L
Amber Cantell	London	N6C2A8

Amelia Holcomb	New York	10031
Amelia Marfisi	Waterloo	N2K
Ameneh Boroomand	Waterloo	N2H
Amiyah Banks		
Amna Syeda	Cambridge	N1T
Amra Alagic	Brantford	N3t 517
Amrita Kirpal	Brampton	17a3v9
Amy Hilleshiem	Glidden	51443
Ana Gonzalez	Ottawa	K2P0L7
Ana Lopez	Bradford	L3Z
Anastasia Lebedenko	Vancouver	V6H
andre riego-vollering	Waterloo	N2L
Andrea Baschieri	Reggio Emilia	42100
Andrea Bilauca	Kitchener	N2r 1x2
Andrea D'Souza	Waterloo	N2L
Andrea Wilson	Weyburn	S4H 3M6
Andres Fuentes	Waterloo	N2T 2M4
Andres Garcia Rodriguez	Waterloo	N2L
Andrew Beach	Kitchener	N2G
Andrew Dieleman	Langton	N0E
andrew faller-saunders	Waterloo	N2L
Andrew Jacksob		
Andrew Kenny	Montréal	H3G
Andrew Mallat	Coquitlam	V3B
Andrew P		
Andrew Reeves	Waterloo, ON	N2J 1L4
Andrew Tucker	St. John's	A1E
Andrey Sedyshev	Waterloo	N2L
Andy Pham	Guelph	N1E
aneta kida	port coquitlam	v3b 5k4
Angela Chen	Markham	L6C 0L3
Angie Caissie	Orillia	L3V
angie zuluaga	Kitchener	N2N
Anisha Patel	Waterloo	N2L

Anita Lazurko	Waterloo	M6E 3C5	
Anitha Valappil	Mississauga, On	L4Y1S2	
Anna Godollei	Waterloo	N2T	
Anna Huschka	Newmarket	L3Y	
Anna Lennox	Waterloo	N2L	
Anna MB	Guelph	N1E	
Anna Supryka	Belleville	K8N	
Anne Clock	Hamilton	L8B 0E8	
Anne Grant	Waterloo	N2L	
Anne Marie Arko	Ottawa	K1A	
Anneke Sears-Stryker	Kitchener	N2B	
Annette Lan	Waterloo	N2L	
Annie Mack			3122
Annie Wang	Peterborough	K9k2a1	
Annika Babra	Burlington	L7L	
Anson Shapter	Armstrong	V0E	
Anya Sarvanandan	Toronto	M2L	
Archie Hui	Vancouver	V6K	
Arezoo Irannejad	northyork	l4j9l3	
ariana lim	Waterloo	N2L	
Arianna Franklin	Waterloo	N2L	
Arienne Chandrakumar	Brampton	L6Y 3K6	
Ariel Schneider	Vancouver	L6a 0m3	
Ariel Tastasa	Waterloo	N2L	
Arlene Oetomo	Waterloo	N2L	
Arturo Salek	Waterloo	N2l1w3	
Arunemathi Shanmugam	Waterloo	N2L	
Arushi Sapra	Saint Catharines	L2T	
Aryan Bhatia	Milton	L9T	
Aryanna Schiebelbein	Toronto	M6G	
Ashleigh Kong	Waterloo	N2L	
ashley li	Toronto	M6G	
Ashley Lopes	Toronto	L1C 0S2	
Ashley Makker	Waterloo	N2L3G1	

ashley ryan	Waterloo	N2L	
Ashok Chaurasia	Waterloo	N2J	
Asiyah Choudry	Waterloo	N2L	
Austin Sun	Waterloo	N2L	
Avery B	Windsor	N8X	
Avetis Avagyan	Scarborough	M1P	
Avi Fischer	Toronto	M6H	
Avnita Virdee	Waterloo	N2L	
Avril Metcalfe-Roach	Niagara Falls	L2E7B5	
Ayman Khan	Ajax	L1S	
Bailey Gardien	Waterloo	N2L	
Bailey Kong	Miami		33193
Bailey Kulesar			
barbara dunslow	Toronto	m4b1r4	
Barbara Saunders	New Hamburg	N3A 1E7	
Barbara Slipp	Sarasota		34231
basak topcu	istanbul		
Baylee Manderson	Waterloo	N2K3s7	
Beatrice Garrovillas	Kitchener	N2G	
Becky Anderson	Kitchener	N2E	
Bei Niu	Ancaster	L9K0G6	
BELINDA WAGG	BURLINGTON	L7L7M3	
Ben Armstrong	Waterloo	N2L	
Ben Kim	Waterloo	N2L	
Ben Milligan	Waterloo	N2L	
Ben Nichol	Waterloo	N2L	
Benjamin English	London	N6B	
Benjamin House	Waterloo	N2L	
Benjamin Kai Reimer-Watts	toronto	M4J3H2	
Benjamin Lovitz	Kitchener	N2H	
Benjamin Muller	Markham	L6b1b6	
Benjamin Rowe	Kitchener	N2E 2C1	
Benjamin Tonita	Waterloo	N2L	
Benjamin Zammit-Maempel	Waterloo	N2L	

bergen buschmeyer	Penticton	V2A
Berlin Pang	Oakville	L6H
Beth Eden	Toronto	M6H
Beth Grant	Waterloo	N2K
Beth Vince	Cambridge	N3H
Bethany Bouchard	Waterloo	N2L
Bethany Low	Oakville	L6L 3C9
bev johnson	Waterloo	N2L
Bhavya Srivastava	Bengaluru	560002
big chungus		
Bikramjit Suri	Brampton	L6X
Bill Bean	Toronto	M6G
Binil Pokhrel	Toronto	M1J3P5
Bishrel Battulga	Ulaanbaatar	
Blessing A	Mississauga	L5M
Bob Bib		560001
Bob Smith		
Bonnie Gao	Toronto	m4j 3e2
bonnie Hachey	Scoudouc, N.B.	E4P1C3
Brad Bruder	Waterloo	N2L
Braeden Kearns	Waterloo	N2L
Brandon Lai-Cheong	Richmond Hill	L4C
Brandon Wall	Waterloo	N2L
Breanna DeFreitas	Waterloo	N2L
breanna peebles	winnipeg	r2m4a7
Brenda Bowles		
Brenda Robinson	Toronto	M4H 1C9
Brenda Steffler	Kitchener	N2H 1T2
Brenda Truong	Waterloo	N2L
Bret Windhauser	Baton Rouge	70809
Brett Keating	Kitchener	N2R 1A5
Brian Boyle	Phoenix	85051
Brian Tien	Richmond Hill	L4C
Brianna Aspinall	Toronto	M6C 2M3

Brianna Williams	Peterborough	K9L	
Bridget Beggs	Kitchener	N2G	
Bristi Deb	Waterloo	N2J 4C1	
Brittany Li	Waterloo	N2L	
Brody Bell	Waterloo	N2L	
Bronson Du	Waterloo	N2L	
Brooklyn Lester	Waterloo	n2V 2N8	
Brooklyn Munroe	Vernon	VIT 6P8	
Cailey Anderson	Waterloo	N2L	
Caitlin Paridy			
Calem Omeill	Toronto	M6G	
Callum Mototsune	Kitchener	N2E	
Cameron Richardson	Waterloo	N2L	
Cameron Slipp	Waterloo		
Camila Sposito	Boston		2128
Camille Ford	North Vancouver	V7R 4E5	
Camille Launay	Montréal	H3G 1A8	
Camryn Anderson	Toronto	M6H	
Camryn Berry	Waterloo	N2L4B7	
Can Atacan	Waterloo	N2L	
Candice Dixon	Waterloo	N2L	
Candice Rubie	Waterloo	N2L	
Carl Tutton	Ottawa	k4m1g1	
Carla Rumeo	King City	L7B	
Carla Salas	Oakville	L6M	
Carlee Knight	Kathmandu		
Carmanella Heard			
Carmelo Gumina	Toronto	M4C 2J7	
Caro Hallé	Dosquet		
Carol Corbett	Brampton	L7A 1L5	
Caroline Davey	North York	M3H	
Caroline Fillion-Morin	Québec	g3g1t4	
Caroline Randall	Caraquet	E1W 1B6	
Carolyn Bean	Markham	L3p 4m4	

Carolyn Miller	Waterloo	N2L
Carolyn Minnick	Cambridge	N3C
Carolyn Smith	Waterloo	N2L 2H8
Carrie Gleason	Sedalia	80135
Carrie Perreault	Toronto	M6G
Carter Eady	London	N5x3h9
Carter Love	Toronto	M6G
Casey Vandonk	Waterloo	
Cassidy Raynham	Waterloo	N2L
Cassidy W	Oakville	L6M4Y1
Cassidy Wagler	Waterloo	N3A
Cassie Bell	Toronto	M6H 2N4
Catalina Ching	Markham	L3S
Catie Terrey	Guelph	N1E 1T8
Cayli Cole	Waterloo	N2L
Ceileigh McAllister	Toronto	M9R
Celia Kirk	Toronto	M6H
Celia Laur	Waterloo	N2H
Champica Nicholas	Kitchener	N2A
Charlotte Rouse		
Charlotte Teng	Toronto	M2J
Charoul Lekx	Nanosee	V9P 9B6
Cherie Wai	Kitchener	N2E
Cherries Lemieux	Waterloo	N2L3C5
Cheryl Chan	Richmond Hill	L4C
Cheryl Lao	Toronto	M4L
Cheyenne Merriman	Murray	42071
Chloe Castell	Kitchener	N2N
Chloe Chan	Waterloo	N2L
Chloe Swarbrick	Guelph	N1G 2W1
Christie Lim	Waterloo	N2L
Christina Hoicka	Toronto	M4k3k4
Christina Visconti	Waterloo	N2L
christine macdonald	Hamilton	L8M2K2

Christopher Hardy	Markham	L6C 1S7
christy cheng	vancouver	v6x 0j6
Cindy Rogers	Oakwood	K0M2M0
Claire Barker-Sharp	Waterloo	N2J
Claire O'Connor	Waterloo	N2L
Claire Soles	Kitchener	N2H
clara fikry	Waterloo	N2L
Clare Fuller	Coldstream	v1b 2e6
Clarese Greig	Kitchener	N2E
Clayton Dasilva	Waterloo	N2J 1N8
Cliff Beales	Corner Brook	A2H-3L4,
Cody Clark	Youngstown	44504
Colin Friesen	Waterloo	N2L
Colin Parkyn	Vancouver	V5X 2E6
Colin Wallace	Cambridge	N1S1L8
Connor Blair	Waterloo	N2L
Connor Bradey	Guelph	N1H6X5
Connor Brunt	Burlington	L7T3K6
Connor Williamson	Cambridge	N1S
Conor Macadam	Waterloo	N2L
Coreena Rego	Waterloo	N2L
Courtney Harper Mims	Little Elm	75068
Courtney Robichaud	Waterloo	N2L 3G1
Courtney Vandergriest	Maple	L6A
Craig Crundwell	Waterloo	N2L
Cristy Argueta	Waterloo	N2L
crystal gomes	Ottawa	k2j0r6
Crystal Liu	London	N6H5P4
Curtis Hagan	Grimsby	L3M
Cynthia Cristina Leal Garza	Waterloo	N2L
Cynthia Zhang	Kitchener	N2H
Cyrus Lo	London	N6G
Da Peng	Guelph	N1E
Daisy Zhang	Toronto	M1N

Dajung Kim	Waterloo	N2L
Dan Kostyniuk	Ottawa	K1N
Dana LI	Waterloo	N2L
Dane Labonte	waterloo	N2J 1R1
Daniel H	Waterloo	N2L
Daniel Ruginets	Maple	L6A 0X2
Daniel Sarna	Waterloo	N2L
Daniel Tyrie	Kitchener	N2M
Daniel Walls	Acworth	30102
Danielle Brandow	Waterloo	N2L 2L3
Danielle Grabke	Toronto	M2N
Danielle LaBrash	Ottawa	K1N
Danielle Lebre	Waterloo	N2J
Danielle Lindamood	Waterloo	
Danielle O'Kane	North Bay	P1B
Danielle Tobert	Waterloo	N2L 5Y6
Danny Tamiru	Brampton	L7A
Danny Wang	Toronto	M2P
Daphne Pan	Waterloo	N2L
DAVE FRITZ	edmonton	t5m3p2
David DeVidi	Waterloo	N2L
David Khazzam	Mississauga	L5B
david lim		
David Mehta	Cambridge	N1T
David Pepper	Ottawa	K1Y 2W4
Davis Liu	Markham	L3P
Dawn Gunn	Milton	L9T 0Z6
Dayna Edwards	Kitchener	N2G
Debbie Fisher	Calgary	T3A 1K2
Debbie Wan	Waterloo	N2L
Deborah Curtis	Oshawa	L1G1C4
Debra Gillet	Cornwall	K6H4G6
Declan Adams	Waterloo	N2L
Deedra Sloat	Campbell River B.C.	V9W-3R8

DelaramSadat Ghadri		
Dena Badawi	Waterloo	N2L
Denis Robert Fraser	Salvador	
Derek Linwood	Kitchener	N2E
Derrick Clouthier	Cambridge	N1S
Des Ma	Ancaster	L9G
Devadarshan Jayadas	Waterloo	N2L
Devin Arndt	Vancouver	
Devin Mathura	Toronto	M5V
Devon Fernandes	Toronto	M4S
Devynn Rumble	Waterloo	N2L
Deyana Nasri	Waterloo	N2L
Dia Rahman	Scarborough	M1M1V2
Diana Ball	Waterloo	N2L
Diana Colangelo	Newmarket	L3Y
Diana Litshauer	Surrey	V3R 0Z8
Diana Lopez	Toronto	M5N
Diana Morimanno	Edmonton	T5z3z9
Diana Si	Oakville	L6H
Diane Clarke	Redruth	TR15
Dianne Dockree	Hamilton	L9H 1N4
Dianne Szymanski	Bracebridge	P1L
Dina Mukhamejan	Waterloo	N2L
Divya Sa		
Divya Sud	Waterloo	N2L3G1
Domenic Annibale	Woodbridge	L4H
Dominique Souris	Waterloo	M2N 5M6
Donna Dupuis	Thamesville	N0p2k0
Donna MacKinnon	Vancouver	V5L 3T8
Donna Vanderzand		
Doug Bentley		
Douglas Coyle	Oshawa	L1G
Douglas Gracias		403001
Drew Jackson	Waterloo	N2L

duncan ward	Richmond Hill	14c 8b6
Dustin Carey	Ottawa	K2P
Dustin Kostal	Toronto	M6A
Dylan Adams	Hamilton	L8R 1V3
Dylan Franklin	Ottawa	K1N
Dylan Hopkins	Waterloo	N2L
Dylan Perera	Waterloo	N2L
Dylan Smith	Mississauga	L5J
E A	Waterloo	N2N0B5
Eden Patterson	Markham	16b1b9
Edis Glogic	Waterloo	N2L 2G5
Ehi Izokun	Milton	L9T
elackeya siva	Waterloo	N2L
Elaina Mohr	Waterloo	N2L
Elanya DeJesus	Waterloo	N2L
Elena Neiterman	Ancaster	L9G
Eliana Lyra	Salvador	41830-000
Elianna Perlmutter	Toronto	M6B
Elias Awad	Halifax	B3N
Elisabeth Bruins	Ottawa	K1C 4W3
Elisabeth Todd	Waterloo	N2L 3E6
Elise Cloutier	Cambridge	N1R
Elizabeth Bristow	Toronto	M5A3W7
Elizabeth Lenny	Cambridge	N1R
Elizabeth Opiyo Onyango	Kitchener	N2M
Elizabeth Riese	Kitchener	N2E
Ella Cai	Waterloo	N2L
Ella Daly	Waterloo	N2H 4L4
Ella Stewart	Waterloo	N2L
Ellie Kingsley	Bowmanville	L1C
Elliot Gustafson	Thunder Bay	P7B 3H4
Elliott MacMurchy	Sudbury	P3E
Eloise Fan	Waterloo	N2L
Éloïse Jones	Toronto	M6E

Emil Harvey	Waterloo	N2L
Emilie Richard		
Emilio Gonzales	Toronto	M9C 1C9
Emily Britton	Kitchener	N2M
Emily Caddell	Kitchener	N2E
Emily Cordi	Waterloo	N2L
Emily Helgerman	Kitchener	N2C
Emily Huang	Waterloo	N2L
Emily Krishnasamy	Waterloo	N2L
Emily L	North York	M2M
Emily McLaughlin	Waterloo	N2L
Emily Reid-Musson	Waterloo	N2L
Emily Saurette	Kitchener	N2E
Emily Tran	Toronto	
Emily Van Loon	Waterloo	N2L
Emily Wang	Waterloo	N2L
Emily Wright	Waterloo	n2j3r5
Emma Bartel	Toronto	M5A
Emma Cameron	Regina	S4S
Emma Cole	Waterloo	N2L
Emma Facca	Saint Catharines	L2T
Emma Moseley	Kitchener	N2G
Emma Perera		
Emma Rossi	Waterloo	N2J
Emma Schuster	Waterloo	N2L
Emma Vandendries	Waterloo	N2L
Emma Watson	Coquitlam	V3B
Emmy Egulu	Vancouver	V6T2J3
Emrys Halbertsma	Scarborough	M1V
Enrique Duquesne	Brampton	L6Z3S6
Eojin Kim	Moscow	
Eric Du	Scarborough	M1H
Eric Duplessis	Moncton	E1E0E2
Eric Filice	Brampton	L6R

Erica Stone	Guelph	N1k 1I1
Erik Arndt	Mississauga	L5L 3M3
Erik Jansen	Waterloo	N2L
Erika Burton	toronto	ftghj
Erin Bryson	Gatineau	J8X 0B8
Erin McKenzie	Waterloo	N2L
Erin Yusek	Thorold	L2V4S4
Esra Karaagac	Waterloo	N2L
Esteban Velasco	Waterloo	N2J2S9
Ethan Duffey	Montréal	H1Y
Ethan Gray-Owen	Oakville	L6H
Ethan Sabourin	Waterloo	N2L
Ethan Verheul	Cambridge	N3H1J3
Eugine Barole		
Eunize Lao	Waterloo	N2L
Evan Chang	Kitchener	N2R
Evan Davis	Waterloo	N2L
Evangeline Faraldo	Rockwood	
Eve Whillier	Waterloo	N2L
Faith Rahman	Toronto	M2N 6B6
Fatima Tariq	Toronto	M6B
Fatima Wasif	Mississauga	L5M
Fatima Youssef	Mississauga	L5C
Faye O'Brien	Waterloo	N2J
Fayza Ibrahim	Waterloo	N2L
Felicia Rose	Arvada	80002
Fion Fong	Markham	L3R
Fiona M	Waterloo, ON	5G5 N2L
Fiona Yang	Waterloo	N2L
Fran Pappert-Shannon	Waterloo	N2T 1T3
Francesca Loreto	Clarington	L1E
Francisco Diaz	Waterloo	N2L
Frank and Kathy Scott	Guelph	N1G4R8
Frency Mendoza	Waterloo	N2L

FS Mak	Richmond	V7C	
Gabriel Pangan	Toronto	M6G	
Gabrielle Klemt	Waterloo	N2L	
Gabrielle Mcinnis	Sudbury	P3E	
GABRIELLE MCMULLAN	Waterloo	N2L	
Gagandeep Singh	Brampton	L6Z4V5	
Gage Adkins	Warsaw		46582
Garrett Loy	Waterloo	N2L	
Gavin Hermanson	Waterloo	N2L	
Gavin Orok	Waterloo	N2L	
Gaya Bin Noon	Waterloo	N2L	
Gayathri Valappil	Kitchener	N2H	
Gemma Ricker	Waterloo	N2L	
Geoffrey Norton	Waterloo	N2L	
George Gibson	Waterloo	N2L	
George Zhang	Richmond Hill	l4b2a5	
Georgia Wiggins	Oakville	L6M	
Gerald Wang	Waterloo	N2L	
gerrie prymak	Winnipeg	R2G	
Gian Navarro	Waterloo	N2L	
Gillian Glover-Sams	Waterloo	N2L	
Gioia Myers	Waterloo	N2L	
Glaucia dos Santos	Waterloo	N2L	
Glen Woolner	Kitchener	N2B 3N8	
Glenn Lu	Toronto	M4G	
Grace Chang	Maple Ridge	V4R1Y9	
Grace Denney	Waterloo	N2L3Z1	
Grace Gingerich	Waterloo	N2L	
Grace So	Waterloo	N2L	
Graham Cromwell	Weymouth	B0w 3t0	
Greg Philbrick	Waterloo	N2L	
Gregory Lu	Thornhill	L3T	
Guneet Sandhu	Waterloo	N2l6c1	
Guoxing Wei	Waterloo	N2L	

Gurnoor Walia	Waterloo	N2L	
gurpreet singh sadhra	Surrey	v3w 8r1	
Gursimran Singh	Waterloo	N2L	
Guy Brodsky	Kitchener	N2M	
gwen meyers	Langley	V3A 5B5	
Gwyneth Nicole Gonzales	Toronto	M6A 2X8	
Habika Cat	Langley	V3A	
Haichen Cui	Waterloo	N2L	
Haidar Mashlab	Mississauga	L5A	
Haley Ayala dugre	Mississauga	L5R	
hammam gaddour	Waterloo	N2L	
Hamza Dar	Stockton		95211
Hamza Nadeem	Jeddah		
Haneen Bakbak	Waterloo	N2L	
Haneen Dalla-Ali	Mississauga	L5N 8M2	
Hanna Charbonneau	Kitchener	N2M	
Hanna Hett			
Hanna Jaglarz	Windsor	N8X	
Hanna Negami	Waterloo	N2L	
Hannah Spasov	Millbrook	L0A 1G0	
Hannah Ur mom	Brampton	L6Y	
Harane Jegatheswaran	Waterloo	N2L	
Harbinderjit Singh	Toronto	M6H	
Harmen Guoth	Waterloo	N2J	
Harriet Skinner	Waterloo	N2L	
Harvey Feit	Hamilton	L8S	
Harvir S	Waterloo	N2L 3G1	
Hashveenah Manoharan	Waterloo	N2L	
Hassan Subhi	Waterloo	N2L	
Haya Shahid	Waterloo	N2L	
Hayley Guignard	Oakville	L6M	
Heather Bishop	Waterloo	N2L	
Heather Buck	Guelph	N1E 5Y1	
Heather Smyth	Toronto	M4T1P6	

Heidi Pittet	Calgary	T2M
Helen Xie	Brampton	L6S
Hélène Guérin	Labrecque	G0W2s0
heron fukur	kampala	hf2000
Hershel Nashman	Waterloo	N2L
Holly Belanco	Saint George	N0E
Huda Shah	Waterloo	N2L
Hudson Bruin	Thornhill	L4J
Hufsa Khan	Waterloo	N2L
Hung Nguyen	Waterloo	N2L
Husneya Nasim	Markham	L3S 1G7
Hypno Nyk	Markham	L3R 3Y3
Iain McGarry	Toronto	L3p2e4
Ileana Diaz	Waterloo	N2L3G1
Ilona Feldmann		
Imani van Gaalen	Kitchener	N2M5R1
Inbar Strauch	Toronto	M6n1n9
Inderbir Hair	Brampton	L6Y
Indira Huck	Waterloo	N2L
Injla Khan	Toronto	M6L
Iryna Humenyuk	Guelph	N1E7K8
Isaac Bergeron	Waterloo	N2L
Isaac Winterfeld	Waterloo	N2L
Isabel Hinthér	Kemptville	K0G
Isabel Kim	London	N5Y
Isabel Trupp	Toronto	M6P
Isabella Kelly	Waterloo	N2J 3W4
Isabella Suppa	Vaughan	L4H
Isabelle Boucher	Waterloo	N2L
Isha Grewal	Waterloo	N2L
Isha Mistry	brampton	L6R 0E5
Ishani Dasgupta	Waterloo	N2L
Ishleen Singh	Waterloo	N2L
Issac Francis	Currie Siding	E7H 4G3

IVETA JARCICOVA	Langley	V3A	
J H	Victoria	V9A	
J L	Montréal	H3W	
Jack Rabb	Ottawa	K0A	
Jackie Jarrard-Turner	Huntington Beach		92649
jackie kinney	Waterloo	N2L	
Jackie Valdez	Houston		77023
Jacklyn McAteer	Pickering	L1V 5P4	
Jackson Smith	Kitchener	N2G	
Jaclyn Janes	Wilmington		19808
Jacob Dimla	London	N6G 2A7	
Jacqueline Kelly	London	N6H	
jacqueline Kinney	Waterloo	N2L	
Jacques Brun	Pointe-du-Chêne	E4P-4Z9	
Jade Manbodh	Cambridge	N1S 2H4	
Jade Martin	Halton Hills	l7g 5t8	
Jade Paxton	Waterloo	N2J	
Jadyn Williams	Saint Marys	N4X 1C1	
Jagmit Janda	Toronto	M9P 2Y3	
Jaida Lindo	Pickering	L1Z	
Jaime Sanchez	Toronto	M5V 0E9	
Jaimie Park	Waterloo	N2L3G5	
Jamaka Petzak	Glendale		91202
James Elliott	Aurora	L4G	
James Mallari	Waterloo	N2L 6G2	
James P	Toronto	m5a4r1	
James Sannes	Drayton	N0G 1P0	
James Schneider	Kitchener	N2A	
James Scott	Orangeville	L9V	
Jamie Cheung	Markham	L6C 2B5	
Jamie Shigeishi	Toronto	M2P 2A3	
Jane Crystal	Kitchener	N2E	
Jane Ye	Burnaby	v5c 1z7	
Janessa Jobanputra	Toronto	M6G	

Janessa Mostert	Waterloo	N2L
Janet Hamblin	Beckenham	BR3 5UG
Janet Petrie	Hamilton	L9H2M2
Janice Langlois	Coldstream	V1B2X6
janice leung	Toronto	M2J
janice liu	Waterloo	N2L
Janis Gibbs	Brampton	L6z2c3
Janko Strizak	Waterloo	N2L
Janna Fahmy	Toronto	M5T
Janna Martin	Surrey	v3w4z7
Janneke vanHoeve	Waterloo	N2L
Janoa Isaac	Saint Albert	T8N
janson neal	Toronto	M6S
Jared Cubilla	Kitchener	N2H
Jarod Labelle	Edmonton	T5J
Jasmin Tsui	Waterloo	N2L
Jasmine Tripathi	Waterloo	N2L
Jasmine Zhang	Waterloo	N2L
Jason Pan	Markham	L3R 4V6
Jason Randle	Waterloo	N2L
Jasprrr Park	Kitchener	N2B
Jatta Takala		
Javier Rodriguez	Panama	
Jay Patel	Toronto	M6B
Jay Yoon	Waterloo	N2L
Jean Chagnon	Montréal	H2K
Jeffray Behr	Ottawa	K1N
Jeffrey Hodgson	Georgina	L4p 1j2
Jeffrey jiang	Georgetown	l7g 0b4
Jeffrey Lu	Toronto	M3J
Jeffrey Qin	Waterloo	N2L
Jeffrey Yan	Toronto	M6G
Jenan Bualat	Mississauga	L5V
Jenica Batangan	Waterloo	N2L

Jenna Miles	Dartmouth	B2V 2K2	
Jenna Newton	Toronto	M4P	
Jennifer Atkinson	Winnipeg	R3L 0Z8	
Jennifer Chen	Richmond Hill	L4C	
Jennifer Duarte	Kitchener	n2p2y1	
Jennifer Ford	Hong Kong		2848
Jennifer Jaeger	Stratford	N5A2T4	
Jennifer Rhynas	Waterloo	N2L	
Jenny Huynh	Kitchener	N2N 3N7	
Jenny Yoo	본	L4J 8J7	
Jeral Anderson-Pearce	Toronto	M3C 1H3	
Jeremy Green	Golden	V0A1H2	
Jeremy Gretton	Oakville	L6H	
Jes Song	Surrey	V3W	
JESS FISHER	Toronto	M4P0A2	
Jesse Lim	Waterloo	N2L	
Jessica Bona	Toronto	M5S	
Jessica Chan	Toronto	M6M	
Jessica Davies	Kitchener	N2G	
Jessica Dulku	Brampton	L6P	
Jessica Herold	Toronto	M6G	
Jessica Landry	Waterloo	N2L	
Jessica rogobete	Waterloo	N2L	
Jezeth Esmas	Waterloo	N2L	
Jia Chen	Waterloo	N2L	
Jill Crumb	Waterloo	N2J 3T4	
JILL VAN DAMME	Windsor	N9B2Z5	
Jillian Bunston	Kitchener	N2B	
Jim Mitchell	Oshawa	L1G	
Jimin Lee	Surrey	V3Z	
Jin Sing Sia	Waterloo	N2L 5M3	
Jo Ann Draughon	Carlsbad		92008
Joanne Hua	Vaughan	L6A3N1	
Joanne Tunkiewicz	Waterloo	N2L	

Jodi Cheslock	Washago	L0K 2B0
jodi koberinski	Kitchener	N2M
Joe Battikh	Waterloo	
Joe Corsaro	Laval	H7K3P1
Joe Giuffre	Waterloo	N2L
Joey Cook	Miramichi, NB	E1N0H5
John Boudda	Waterloo	N2L
John Butler	Stirling	K0K 3E0
john edwards	Waterloo	N2L
John Garcia	Conestogo	N2J
John Jensen	Guelph	N1K0B4
John mihalo	Richmond	V6V1A4
John Psycharis	Montréal	H3M
John Webster	Kitchener	N2M
Jonas Chin	Toronto	M6E
jonas heintz	Waterloo	N2L
Jonathan Qualter	Kitchener	N2M
Joni MacArthur	vancouver	V6G2Y2
Jordan Bean	Markham	l3p4m4
Jordan Blake	Waterloo	N2L
Jordan Chiu	Waterloo	N2L
Jordan Geist	Ottawa	K1A
Jordan Marasigan	Waterloo	N2L
Jordan Nickel	Kitchener	N2H
Jordan Reynolds	Barrie	L9X
Jordan Valles	Oakville	L6H
Joris Franssen		
Josalyn Radcliffe	Waterloo	N2L
Jose Avilez	Waterloo	N2L
Josee-Claire Malenfant	Waterloo	N2L
Joshua Garcia-Barrios	Waterloo	N2L
Jotvarinder Mann	Waterloo	N2L
Joyce Guo	Waterloo	N2L
Joyce Kwack	Vaughan	L6A 0J1

Judith Wan	Waterloo	N2L	
Judy Carol	Toronto	M4k2t5	
Julia Bergevin	Waterloo	N2L	
Julia Crovetto	Waterloo	N2T	
Julia Davis	London	N6K3H7	
Julia de Marins Costa	Waterloo	N2L	
Julia Gillespie	Whitby	L1R 2Z9	
Julia Gyapay	Hay River	X0E 0R2	
Julia Karges			
Julia Mroz	Toronto	M4S	
Julia Nakanishi	Toronto	M5R3B3	
Julia Urbanska	Mississauga	L5M 7R2	
Juliana Galvis	Waterloo	N2L	
Julie croteau	Cambridge	n1t1r7	
Julie Daugavietis	Waterloo	N2L	
Julie MacArthur	Auckland	v6e1j7	
Julie Williamson	Guelph	N1G	
Justin Polgar	Waterloo	N2L	
Justin Schaper	Kitchener	N2M	
Justin Vollrath	Cambridge	N1T	
justine scheifele	Waterloo	N2L	
k lukic	Hamilton	L8L	
K S	Brampton	L6R	
Kae Elgie	Waterloo	N2L3N1	
Kaiden Smitheren	Stoney Creek	L8E	
Kaile D'amico	Toronto	M9C 1B8	
Kailey De Boer	Kitchener	N2A 1M1	
Kaitlin Gaerlan	Stouffville	L4A0B3	
Kaitlin Richardson	Saint Thomas	n5r1k7	
Kaitlin Thompson	Kitchener	N2G	
Kaitlyn myles	Orangeville	L9W 3B6	
Kamaljeet Singh	Windsor	N9B	
Kamron Najmabadi	San Mateo		94403
Kanishk Goomer	Waterloo	N2V	

Kara Dietz	Waterloo	N2L	
Karan Sachdeva	Goa		
Karan Sindhvani	Waterloo	N2L	
Karani Karthikaikumar	Waterloo	N2L	
Karel Wahl	Johannesburg		2000
Karen Chau	Brampton	L6R2Z2	
Karen Havlas	Waterloo	N2L	
Kari Minchin	Comox	V9m 3v8	
Karishma Seebaran	Waterloo	N2L	
Karolina Bramwell	Cornwall	k6h2h3	
Karsten Rinas	Waterloo	N2L	
Karyn Robichaud	Burlington	L7R	
Karyn Zister	waterloo	n2h	
Kasandra Burger	Barrie	L9X	
katarina Poganatz	Waterloo	N2L	
Kate M	Waterloo	N2L	
Kate McDonald	Waterloo	N2K	
Kate Wallis	Toronto	M4C 3P5	
Katelyn Brown	Waterloo	N2L 6A3	
Katelyn Godin	Waterloo	N2L	
Katherine Goerzen Sheard	Elmira	N3B	
Katherine Thanenthira	Toronto	M6M	
Kathryn Daly	Kitchener	N2H 4L4	
Kathryn Saigle	Stratford	N5A	
Kathy Hoof	Sarnia	N7S 1R3	
Kathy Lin	Markham	L6G 0C5	
Katie Horne	Kitchener	N2M	
Katie Turriff	Belleville	K8N4H4	
Katja Kubasta	Kitchener	N2A	
Katrina Khachi	London	N6G	
kavita dave	Waterloo	N2L	
Kayla Arnberg	Erin	N0b1t0	
Kaylia Little	Winnipeg	R3T	
Kazi Iqbal	Port Moody	V3H	

KC coutinho	Waterloo	N2L
Keegan Cove	Kitchener	N2E
keenan reimer-watts	Breslau	n0b 1m0
Keira Mcmanus	Windsor	N8T
Kelly Cameron	Dartmouth	B3A2V9
Kelly Jia	Waterloo	N2L
kelly munro	Guelph	n1h 6v9
Kelsey Dawson	Montréal	H3C
Kelsey Lam	Waterloo	N2L
kelsey zhao	Waterloo	N2L
Kelvin Muaka		
Ken Tran	Toronto	M6C
Kendra Abdul	Waterloo	N2L
Kerri Moffatt	Espanola	P5E
Keslyn Ayow James		
Kevin Knapp	Ottawa	K1S
Kevin Kunnappilly	Brampton	L6Z
Kevin Mu	Toronto	M2M
Kevin Zhang	Waterloo	N2L
Khalid Parray	Pickering	L1Z
Khashia Unoos	Waterloo	N2L
Kiara Fuson	Saint Albert	T8N
Kiara Harmon	Ajax	L1T
Kieren Shan	Waterloo	N2L
Kim Denarde	Cambridge	N1S
Kim Stuart	Toronto	M1E 1W5
Kim Y	Waterloo	N2L
Kimberley Myles	Montreal	H8R 2P8
Kimberly D'Mello	Waterloo	N2L
Kirsten Lee	Waterloo	N2L
Kirsten Nikel	Waterloo	N2L
Kirsten Wright	Kitchener	N2G
Kirstin O'Brien	Waterloo	N2L
Kirti Nemani	Waterloo	N2L 1W7

Kitty Corbett	Kitchener	N2M2S9	
Kobi Logendrarajah	Toronto	M2N	
Kody Szymanski	North Bay		4078
Kondapuram Aditya Seshadri	Waterloo	N2L	
Kory MacLean	Tyne Valley	C0B 2C0	
kristina arseneault	Waterloo	N2L	
Kristoffer Kwan	Markham	L6C 2K6	
Kristy Gao	Vancouver	V6H	
Kritik Kaushal	Brampton	L6R	
Krizia Flammia	Toronto	M6L	
Krystal Yang	Ajax	L1T	
Krystal Yee	Waterloo	N2L	
Kun Zhu	Central District		
Kurtis Sutton	Waterloo	N2L	
Kushal Shah	Waterloo	N2L	
Kyle Albert	Kitchener	N0B	
Kyle Born	Waterloo	N2L	
Kyle Rogers			
Kylie Ateshi	Markham	L3P	
Kyra Chisholm	Waterloo	N2L	
Lacey Will	Waterloo	N2L	
Lakshmanan Arumugam	Waterloo	N2J	
Lal Şekercioğlu	Istanbul		
Lang Su	Waterloo	N2L	
Lannah Garrett	Waterloo	N2L	
Larissa Lam	Waterloo	N2L	
Larry Smith	Paris	N31 3e2	
Lasantha Fernando	Pannipitiya		10230
Laura Arrizza	Waterloo	N2J	
Laura Culleton	Kitchener	N2G	
Laura Davies	Waterloo	N2L	
Laura Dias	York, Toronto	M9N 2E4	
Laura Dundas	Toronto	M3M	
Laura Girard	Kitchener	N2B	

laura hamilton	kitchener	N2H1W3	
Laura Powell	Waterloo	N2L	
Laurel Pierroz-Wong	Waterloo	N2L	
Lauren Blanc	Waterloo	N2L	
lauren diaz	Ringwood		7456
Lauren Lambkin	Waterloo	N2L	
Lauren McLennan	Kitchener	N2G	
Lauren Mok	Toronto	M2H 3N4	
Lauren Petropoulos	Kitchener	N2E	
Laurie Haig	Waterloo	N2L	
Laurie Zeng	Coquitlam	V3B	
Leah Feor	Crystal Beach	L0S1B0	
Leah Lee	Waterloo	N2L	
Leela Keshav	Cambridge	N3H	
Leif Kasmer			
Lena Buren	Oakville	L6M	
Lena Lam	Waterloo	N2L	
Lenna Kenny	LUMBY	V0E2G0	
Lennie Markwick	Sudbury	P3A	
Lenore Black	Markham	L3S 1V6	
Leonie de Young	Toronto	M1B 1J6	
Lesley Andrade	Oshawa	L1G	
Lesley Johnston	Waterloo	N2L	
Leslie Nicholson	Toronto	M3M	
Leslie Wilkinson	Waterloo	N2L	
Lexi Salt	Scarborough	M1B	
Li Na Chen	Waterloo	N2L	
Liam Ryan	Waterloo	N2L	
Lichu Lin	Waterloo	N2L	
Lilia S	Waterloo	N2L	
Lily Cui	Waterloo	N2L	
Lily Roth	Waterloo	N2V 1V5	
Lily Smith	Guelph	N1G4E1	
Linda Hernandez	Cambridge	N3H	

Lindsay Adamson	Kitchener	L6E
Lindsay Krahn	Waterloo	N2L
Lindsay Krahn	London	N6A
Lindsay Paquette	Waterloo	N2L 6H9
Lindsay Verheul	Waterloo	N2L
Lindsey Chapman	Newmarket	L3Y
Liz J. Yángüez F.	David	
Logan Hunt	Guelph	N1H8K5
Lorena Diller Harder	Waterloo	N2L
Loreta Walker	Caledon, Ontario	L7C-1K8
Lori Mcguigan	Montréal	H2E
Loriane Wong	Brossard	J4X
Lorraine Mnlngt		
Louis Sobol		
Louise Cassel	Kingston	K7M 6P4
Louise D'Anjou	Bright	N0J 1B0
Louise Niven	Guelph	N1E
Lubaba Hoque	Kitchener	N2G
LUCAS JERÔNIMO DULTRA BRITTO	Salvador	
Lucia Alexandre	AURORA	L4G2B2
Lucig Aroyan	Waterloo	N2V
Lucille Buller	Waterloo	N2L
Lucille Petcoff	Earlton	P0J1E0
Lucy Curgenvan	Toronto	M6G
Lucy Lin	Toronto	M2P
Lucy Zhang	Charlottetown	C1E 2A2
ludmila sokolovs	Waterloo	N2L
Luke Weis	Maple Creek	S0N
Luqman Hussain	Ajax	L1S
Lydia Mudford	Sudbury	P3A
Lynn Orenda	Nairobi	
Lynn Stone	Guelph	N1E
LYNN WOYCHES	Brandon	R7A
M H	Waterloo	N2L

M M	Toronto	
Mackenzie Peck	Waterloo	N2L 5S7
Maddi Slaney	Cambridge	N1P
Maddie Hemstreet	Waterloo	N2L
Maddie MacLean	Waterloo	N2L
Madeleine Godin	Kitchener	N2E
Madeleine Lemieux	Plantagenet, ON	K0B 1L0
Madeleine Redican	Toronto	M4S
Madeline Croteau	Cambridge	N1T1R3
Madeline Engen	Edmonton	T5N
Madeline Kim	Markham	L6E
Madeline Sain	Etobicoke	M9C
Madison Baskin	Waterloo	N2L
Madison Smyth	Waterloo	N2L
Mag BaR	Newark	19702
Maggie Bunbury	Waterloo	N2L
Maggie Chang	Waterloo	N2L
Maggie Daly	Kitchener	N2H 4L4
Mahboubeh Taftian	Karaj	
Mahmood Gohari	Waterloo	N2L
Mahsa Sadeghi	Waterloo	N2L
Maicy L	Waterloo	N2L
Maighdlyn Hadley	Toronto	M6H
Malak Sherif	Toronto	M4s1v5
Mallory Drysdale	Waterloo	N2V
Manal Chaudhry	Mississauga	L5M
Mandie Yantha	Milton	L9T
Maneet Brah	London	L5A 7H1
Mani George	Montréal	H3N
Manjot Singh	Waterloo	N2L
Manojan Manoharan	Hamilton	L8S
Manu S-M	Hamilton	L8S 4L8
Manvi Bhalla	burlington	L7L 0A1
Mara Mackay	Cambridge	N1S5B8

Mara Mackay	Cambridge	N1S 5B8
Marc Courtois	Waterloo	N2L
Marc Eugenio	Whitby	L1M
marcello bezzi		48124
marcie gibson	Montreal	H3X 3R1
Margaret Beaton	Ingonish	B0C
margaret bell	Guelph	n1e 6v3
Margaret Katz	Waterloo	N2L
margaret kennedy	edmonton alberta	t5y2m3
Margie Lambert-Sen	Kitchener	N2C 2R3
Maria Costa	Toronto	M6s 4h3
Maria Fraser Semenoff	Waterloo	N2L 3E5
Maria Helena Nascimento	Waterloo	N2L
Maria Isabel Gonzalez	Salvador	
Maria S	Barrie	L4M 6M2
Mariah Jolin	Waterloo	N2L
Mariam Khattak	Ajax	L1T 1S9
Mariam Manaa	Toronto	M6B
mariana yu	Waterloo	N2L
Marianne Roaldi	Montreal	H3C 0N3
marie roth	Waterloo	N2L
Marilyn Hunt	Hamilton	L8P 2E6
Marion Galbraith	Killcare	2257
Marissa Barbosa	Waterloo	N2L
Marissa Barbosa	Waterloo	N2n2y4
Marissa Pinto	Barrie	L4N
Marissa Wu	Waterloo	N2L
Mariya-Magdalena Djangozova	Waterloo	N2L
Mark Chenn	Coquitlam	V3E
Mark Putman	Oakton	22124
Marlena Bolton-Gerow	Chiliwack	v2r3r1
Marnel Muller	Goderich	N7A 3Y2
marsha richardson	Saint Thomas	N5R
Martha Straughan	Ilderton	N0M

Martin Holmes	Sarnia	Ns7 4h8
Marwa Dabbagh	Waterloo	N2K
Mary Leorene Tan	Carlsbad	92008
Mary Ma	Burnaby	V3N
Mary-Ann Hoch	Kitchener	N2M 2B6
Maryam Hafejee	Waterloo	N2L
Maryam Sajjad	Kitchener	N2M
Maryyeh chehresaz	Kitchener	N2G
marz Ziccarelli	Sackville	E4L
Mataya Milne		
Mathieu Legault	Stratford	N5A
Mathisan Paramanathan	Markham	L3s 2I5
Matt Conte	Toronto	M5R
Matt Wilson	Toronto	M9P 2S3
Matteo Palarchio	Burlington	L7M 2Y5
Matthew Barbosa	Kitchener	N2C
Matthew Bilopavlovic	Thornhill	L4J
Matthew Charters	Waterloo	N2L
Matthew Dlugosz	Mississauga	N1R 4J7
Matthew Fletcher	Stafford	ST17 9UN
Matthew Haller	Waterloo	N2L
Matthew Nicholas Schwarze	Waterloo	N2L
Matthew Pereira Wilson	Vancouver	V6T
Matthew Perry	Alliston	L9R
Matthew Robbins	Waterloo	N2L
matthew strang	surrey	v4p117
Matthew Wolfe	Secaucus	7094
Matthias Scheid-Wiltshire	Waterloo	N2L
Mawj Al-Hammadi	Waterloo	N2L
Max Perry	Oakville	K2C
Maxime Batiot	Waterloo	N2L
Maximilian Kahn	Toronto	M6E
May Li	Markham	L6C 2A7
Maya Bishop	Waterloo	N2L

Maya Mittelstaedt	Toronto	
Maya Zaidman	Waterloo	N2L
Mayuri Punithan	Toronto	M1V 2E6
Mckenna Appelt	Aldie	20105
McLennon Wilson	Kitchener	N2G2C3
meagan little	OWEN SOUND	N4K 2S
Meaghan McFall	Cambridge	N1t1y3
meaghan wunder	Waterloo	N2L
Megan Dicks	Ottawa	K2C 0N4
Megan Doleweerd	Kitchener	N2M
Megan Fraser	Waterloo	N2L
Megan magier	Kitchener	n2b 3m5
Megan Morrison	Toronto	M2N
Megan Penny	Waterloo	N2L
Megan Salvucci	Toronto	M6A
Meghan Cunningham	Sarnia	N7T
Meghan Metke	Waterloo	N2L
Mehrnaz Mostafapour	Waterloo	N2L
Mehrnaz Nazari	Waterloo	N2L
Mel Dufrene	Waterloo	N2L
Melanie Bedard	Waterloo	N2L
Melanie Macaulay	Scarborough	M1G
Melanie Wallace	St. Albert	T8n1n8
Melissa Koch	Waterloo	N2L
Melissa Magier	Toronto	M6C
Melody Chen	Vancouver	V5P
Meredith King	Barrie	L4M 6T8
Mia Cajic	Milton	L9T 6G7
Micaela Yawney	Waterloo	N2L
Micha Spengler	Gravenhurst	p1p1r3
Michael Bouliane	Waterloo	N2L
Michael Carter	Victoria	V9A 1H4
Michael Imseis	Kitchener	N2M
Michael Ioannou	Waterloo	N2L

michael Krapez	Waterloo	N2L
Michael Paknys	Waterloo	N2L
Michael Pepe	Ottawa	K1C
Michael Salib	Mississauga	L5B
Michaela Mask	Toronto	M8Z 6C7
Michaela Panchaud	Waterloo	N2L
michele alessi	Mississauga	l5n2w2
Michelle Angkasa	Waterloo	N2L
Michelle Clark		
michelle gonzalez	london	n6c5k3
Michelle Harkness	Port Hope	l1A1V3
Michelle Lee	Waterloo	N2L
michelle r a crozier	North Vancouver	v7g1t4
Michelle Sin	Waterloo	N2L 4S8
Mickayla Jia	Toronto	M6C 2C4
Miguel Guerra	Waterloo	N2L
Mihojana Jhumi	Hamilton	L9C
Mikaila Acheamp	Scarborough	M1C
Mikayla Young	Orangeville	L9W
Mim Patwary	Burnaby	V5B3W6
Mina Rui	Toronto	M6G
Minecraft Minecraft		
Mira Ibrahim	Waterloo	N2L
Miranda Bird	Waterloo	N2L
Miranda Hunter	Kitchener	N2G1V8
Mirat Sattar	Lahore	
Miriam Palmer	Toronto	M5B
Misha Goforth	Ulaanbaatar	
Mishka Naidoo		
Mitch Ouma Dundos		
Mitchell Ostler	Kitchener	N2M
Mithra Mohammadi Azad	Waterloo	N2L
Mitra Zaimi	Waterloo	N2L
Mitul Patel	Edmonton	T6T

Mo Chen	Waterloo	N2L
mohammad soltani	Waterloo	N2J 1Y6
Mohammed Najarali	Waterloo	N2L
Mohitt Khinda	Markham	L3S
Molly Lu	Waterloo	N2L
Momina Rehman	Orinda	94563
Mona Qutub	Mississauga	L5V2C5
Monica DeVidi	Kingston	K7L
Monica Marko	Kitchener	N2M
monica nguyen	Brampton	L6X 4P8
Monica Snow	Clareville	A5A 4P6
Monida Eang	Toronto	M6B
monika kitor	Binbrook	
Monika Terzic	Kitchener	N2A
Morgan Morel	Waterloo	N2L
Muge Bagci	Waterloo	N2L
Muhammad Mujtaba	Waterloo	N2L
Muna Delovski		
Mylène Matifat	Vancouver	V6J
N A	Toronto	M4M
Nadia Badr	Kitchener	N2G
Nadia Hollman	Edmonton	T5A
Nadia Somani	Waterloo	N2L
Nadine Ghanem	Waterloo	N2V
Nadine Hijazi	Toronto	M3N
Nady Kao	Waterloo	N2L
Nafee Hasan	Etobicoke	M9R
Najib Aboughauche	Edmonton	T5Z2W5
Nancy Bichara	Chesapeake	23322
Nancy Blackwell	Hythe	
Nanda Abbas	Waterloo	N2L
Naomi Kane	Hamilton	L9A4T7
Naomi Maina		
Naomi Mullen		N1E 1C8

Naomi Paul	Waterloo	N2L 3G1	
Nar Kiri	Toronto	L7A	
Natalie Davidson	Cambridge	N3H	
Natalie Do	Waterloo	N2L	
Natalie Doan	Waterloo	N2J 2B5	
Natalie Kopp	Toronto	M6E	
Natalie Rudkins	Waterloo	N2L	
Natalie Tam	Richmond Hill	L4C	
natalie timmers	Spring		77379
natasha bongers	waterloo	N2H	
Natasha Moroz	Vancouver	V6P	
Natasha O	Ottawa	K1T	
Natasha Poley	Waterloo	N2L	
Natasha Smolcic	Vaughan	L6A	
Natasha Tang	Markham	L3R	
Nathan Diller Harder	Kitchener	N2H	
Nathan Tio	Waterloo	N2L	
Nathan White	Castro Valley		94546
Nathanael Scheffler	Waterloo	N2J 3L7	
Nathania Chan	Waterloo	N2L	
Nattalia Chilcott			
Natun Dasgupta	Waterloo	N2L	
navya v	Waterloo	N2L	
Nawal Ovais	Waterloo	N2L	
nazo i	Oakville	L6H	
Neelima Palat			
Nelda C	Indianapolis		46222
Nelva Baillie	Washington		20009
Nemo Liu	Richmond Hill		
Netri Kalra	Brampton	L7A 3A7	
Neya Govind	Waterloo	N2L	
Niara van Gaalen	Kitchener	N2M 5R1	
Nicholas Frayne	Waterloo	N2K	
Nicholas Jelich	Kitchener	N2G	

Nichole Siksay	Dundas	L9H 2N1
Nick Arrizza	Grimsby	L3M
Nick Hughes	Lepreau	E5J1L9
Nick Sentjens	Toronto	M5V
Nicolas Sonder	Waterloo	N2T 2J3
Nicole Belanger	Georgetown on	L7g576
Nicole Bourque	Waterloo	N2L
Nicole Castellino	Waterloo	N2L
Nicole Chassin	Waterloo	N2L 3P7
Nicole Gabura	Waterloo	N2L
Nicole McDonald	Waterloo	N2L
Nicole Rak	Cambridge	N1P
Nicole Richards	Waterloo	
Nicole Ste Marie	Waterloo	N2L
Nicolee Huynh	toronto	N0A 9Z9
Nida Uddin	Brampton	L6P
Nidhi Gupta	Waterloo	N2J
Nidhi Patel	Waterloo	N2L
Nikita Hausz	Courtice	L1E
Nilanth Yogadasan	Waterloo	N2L
Nim Wijetunga	Saint Catharines	L2S
Nina Gabert		
Nirav Gandhi	London	N6J
Nirmal Singh	Tecumseh	N8N
Noor Shaikh	Waterloo	N2L
Norman Kearney	Bern	3027
North Hunter	Regina	S4P
Nupur Garg	Toronto	M5N
Nyta Lobo	Pune	411001
Oasis Vali	Atlanta	30360
Ola Odunlade	Mississauga	L4T3M3
Olena Tsygankova	Calgary	T2J 1V4
Olga Bashalkhanova	Waterloo	N2L
Oliver collings	Waterloo	N2L

Oliver Kavelman	Rogersville	E4Y
Olivia Merritt	Hamilton	l8s2v7
Olivia Paxton-Beesley	Waterloo	N2L
Olivia Pereira	London	N5W
Olivia Yu	Waterloo	N2L
Olivier Paquette	Waterloo	N2L
Oluwatoni Ogunmade	Waterloo	N2L 3K8
Omar Elkadri	Waterloo	N2L
Omar Ferwati	London	N6G 3V4
Oren Basse	Los Angeles	90019
Oriana Confente	Montréal	H4A
Osman Bari	Burlington	L7M4V1
Owen Hagan	Kelowna	V1V
Owen Lafleur	Kitchener	N2M
Owen Melisek	Cambridge	N1S
Owen Parnell	Victoria	V9A
owen shuttleworth	Dartmouth	B3A
pablo amaya	Waterloo	N2L
Paddy Enright	Ottawa	K1V
Paige McLelland	Hamilton	L8M
Pallav Walia	Waterloo	N2L
Palvasha Thayani	markham	343434
Palwasha Khan		
Patricia & William Forsythe	North Vancouver	V7V 1A4
Patricia Bourque	Burlington	L7S
Patricia Garley	Burlington	L7m5c2
Patrick Angkiriwang		
Patrick Bryant	Toronto	M4C 1K9
Patrick Kohl	Troisdorf	53842
Patrick Mahomeboy	Toronto	n2j 2y5
Patrick Sutton	Oakville	L6M0A3
Patrick Thomas	Waterloo	N2L
PAul Burke	Waterloo	N2L
Paul Holley	Paradise	A1L

Pedro Alguindigue	Waterloo	N2L	
Pénélope Pelletier	Québec	J5R 3P8	
Peter Missiuna	Waterloo	N2L	
Peter Vu	Toronto	M5T	
Petra Bogias	Toronto	M6H	
Philip Murphy	Waterloo	N2L	
Phillip Freiburger	Berlin		10625
Phillis Yang	Richmond	V6v2r8	
Poorna Patange	Waterloo	N2L	
Prabal Gupta	Waterloo	N2L	
Prabh Mangat	Vancouver	V5Z	
Prabhjot Benning	Waterloo	N2L	
Prabhjot Sangha	Waterloo	N2L	
Prapti Patel	Waterloo	N2L	
Prarthna Kashyap	Waterloo	N2L	
Princewill Odikpo	Toronto	M6G	
Puvaanah Arrumugam	Waterloo		
Qhalisa Khan	Waterloo	N2L	
Rachael Steenland	Pickering	L1X	
Rachael Winter	Waterloo	N2L	
Rachel Acton	Waterloo	N2L 1V8	
Rachel Barton	Waterloo	N2J	
Rachel Correia	Waterloo	N2L	
Rachel Hannusch	Waterloo	N2L	
Rachel Jowett	Waterloo	N2L	
Rachel Liu	Waterloo	N2L	
Rachel Mantel	West Vancouver	V7w 1z3	
Rachel Mayrhofer	Kamloops	V2B	
Rachel McQuail	Toronto	M6M	
Rachel Sarchielli	Waterloo	N2l2a4	
Rachel Scott	Waterloo	N2L	
Rachel Thevenard	Waterloo	N2T 1Y5	
Rachel Tu	Richmond Hill	L4E0N3	
Ragul Shanthakumar	Ajax	L1S	

raheleh mohammadi	Waterloo	N2J 4h2	
Rahul Gonuguntla	Waterloo	N2L	
Rahul Mehta	Mississauga	L5M4E6	
Rainen Oates	Elora	N0B	
Rakeen Huq	Toronto	M2L 2R7	
Rakesh Kataria	Abbotsford	V2S	
Ram Prash	Waterloo	N2L	
Rania Atif	Waterloo	N2L	
Rapinder Mehat	Toronto	M8V	
Raquel Steele	Scarborough	M1B	
Raynard Narain	Toronto	M6H	
Raza Chariwala	Caledonia	N3W	
Rebecca Brown	Waterloo	N2K 1Z7	
Rebecca Choonilall	Waterloo	N2L	
Rebecca Garlick	Kitchener	N2G	
Rebecca Lerch	Prince George	V2N 1N3	
Rebecca Selkirk	Saint Catharines	L2T 3W1	
regan lalonde	Waterloo	N2L	
rehana ahmed	Guelph	n1g 5e8	
Rene Roberge	Waterloo	N2L	
Reno Natalizio	Waterloo	N2L	
Reuben Roth	Sudbury	L1G2G9	
Ricardo Arizpe	Waterloo	N2L	
Ricardo E	Toronto	L6M	
Richard Jiang	Surrey	V3T	
Richard Lang	Kitchener	N2G1K1	
Riley Jauniaux	Waterloo	N2L	
Riley Wallace	Petersburg	N3A	
Rinette Van Wyk	Port Elizabeth		6070
Rishi Shh	Waterloo	N2L	
Rita Colaluca	Vaughan	L6A2P4	
Ritik Kumar	Waterloo	N2L	
Ritvi Rathod	Brampton	L6S	
Riva Banh	Waterloo	N2L	

Rob Chamberlain	Kitchener on	N2e3z6	
Robert Davies	Toronto	M5G1J9	
Robert Elijah	Southwold		48210
Robert Parson	Victoria	V8S3S5	
robert rehill	Waterloo	N2L	
Roberto Sucuqui	London	N6C	
Robertson Reid	Waterloo	N2K	
robin read	Dartmouth	b2y 1t4	
Rochelle Christensen	Nottawa	L0M 1P0	
Roger Chen	Toronto	M4C	
romona choonilall	Waterloo	N2L	
Ron Cwang			
Rosanna Wong	Markham	L3R 7S7	
Rose Silivestru	Waterloo	N2L	
Rose Van Hemmen	NA	NA	
Rosemary Payne	London	N5Z4X4	
Rosir Smith	Kitchener	N2M1X3	
Ross Kircher	Waterloo	N2L	
Rowan Hartley	London	N5X	
Roxanne Giroux	Waterloo	N2L	
Roy Evans	London	N6E 2j5	
Ruah Alsaghier	Waterloo	N2L	
Rubi Bravo	Los Angeles		90003
Rudra Bhatt	Waterloo	N2L	
Rumaisha Qadar	Waterloo	N2L	
Ruth Leung	Toronto	M9V	
Ryan Capobianco	Kitchener	N2E	
Ryan Cohen	Kitchener	N2G	
Ryan Fobel	Kitchener	N2H 5M5	
Ryan Kinnear	Waterloo	N2L3E6	
Ryan Mitchell	Waterloo	N2L	
Ryan Yeung	Waterloo	N2L	
Ryleigh Sadler	Toronto	M4K	
Saad Arif Qadeer	Waterloo	N2L	

Saaliha Jivraj	Toronto	M5V	
saanchi singh	Waterloo	N2L	
Sabine Kwan	Central District		
Sabrina Lee	Markham	L6C	
Sachin Nair	Toronto	L3P	
Sadia Khan	Kitchener	N2G	
Sadia Nadee	Waterloo	N2V	
Sadie Keith	Vancouver	V5W	
sadique Mostafa Bin Amin	Waterloo	N2L	
Saeideh Davari Dowlatabadi	Waterloo	N2L	
Safaa Alnabelseya	Laval	H7V	
Sagun Malwatkar	Pune		411001
Sai Swamy	Waterloo	N2L	
saipraneeth mupparapu	Waterloo	N2L	
Saje Griffith	Waterloo	N2L	
sam cloutier	Waterloo	N2L	
sam demma	toronto	L1V 1N2	
Sam Goss	Mississauga	L5G	
Sam Kiani	Ottawa	K2c3j9	
Sam Yawney	Garson	P3L1M5	
Sama Saqib	Waterloo	N2L	
Samantha Clifford	Kitchener	N2M	
Samantha Decan	Waterloo	N2L	
Samantha Eby	Toronto	M4W	
samantha kanemy	Waterloo	N2L	
Samantha Lange	Waterloo	N2L	
Samantha Marshall	London	N6C	
Samantha Milling	Toronto	m6c1m8	
Samantha Nolan	Thornhill	L4J	
Samantha Priffer	Waterloo	N2L	
Sameh Hashem	Waterloo	N2T 2Y1	
Samina Hayat	Waterloo	N2L	
samira karim	Waterloo	N2L	
Sammy Chown	Hamilton	L8S2H1	

Samuel Roberge-Arnott	Waterloo	N2L	
Sana Patel	Milton	L9T	
Sandra Biskupovic	Kitchener	N2M	
Sandra Lyboun	Binbrook	L0R1C0	
Sandra Scriver	Lindsay	K9V 0E6	
Sanjeev T	Oakville	L6H	
Sankha Podder	Waterloo	N2L	
Santiago Montemayor Gomez	General Escobedo		66064
Sara Azad	Waterloo	N2L	
Sara Deweerd			
Sara Ford	Kitchener	N2E	
Sara Ghods	Waterloo	N2L 6P5	
Sara Harder	Brampton	L6Z 1X3	
Sara Radcliffe	Kitchener	N2G	
Sarah Ali	Waterloo	N2L	
Sarah Baillie	Waterloo	N2L	
Sarah Birch	Simcoe	N3Y 5A9	
Sarah Botros	Waterloo	N2L	
Sarah Brown	Kitchener	N2G	
Sarah Cui	Toronto	M4K	
Sarah Cutting	Waterloo	N2L	
Sarah Fries	Waterloo	N2J 3Z4	
Sarah Ghorpade	Waterloo	N2T	
Sarah Graves	Waterloo	N2L	
Sarah Jamal	Toronto	M3L	
Sarah Laberge	London	N6G	
Sarah Macdougall	Rusagonis	E3B	
Sarah Main	Canning		
Sarah Mason	Toronto	M3N	
Sarah Mazen	Waterloo	N2L	
Sarah Qutaishat	Waterloo	N2L	
Sarah Shafi	Whitby	L1R	
Sarah Soudki	Cambridge	N1S	
Sarah Stock	Sarnia	N7S 6G6	

Sarah Towers	Waterloo	N2L	
Sarah Welton	Cambridge	N1R	
Sarah Wenger	Waterloo	N2L	
Sarahu Wu	Toronto	M4V	
Sarena Daljeet	Mississauga	L5M	
saskia bremmers	schomberg	l0g 1t0	
Satripleen Kaur	Waterloo	N2L	
Saumil Desai	Waterloo	N2L	
sayen zhao	Waterloo	N2L	
Scott Janzwood	Victoria	V9A	
Scott Rousseau	Kitchener	N2N	
Scott Walker	Waterloo	N2L	
Seamus Gardiner	Orillia	L3V5A4	
Sean Mallia	Waterloo	N2L	
Sebastian Rios	Waterloo	N2L	
Sebastien Carman	Toronto	M3A	
Sebastien Modol	Waterloo	N2L	
Selena Wong	Markham	L3R 7S7	
Semih Salihoglu	Waterloo	N2L	
semogi aime Gilbert	montreal	h4v2m3	
Serena Valles	St Catharines	L2r6p9	
Serene sebastian	Ottawa	K1N	
Seth Winward	Sackville	E4L 1H3	
Setraeh Betel Miri	Waterloo	N2L	
sevda aysel	brambleton		20148
SeyedMohammad Hosseini			
Shaeer Alam	Waterloo	N2L	
Shaina Coulter	Pickering	l1w2b3	
Shaishav Joshi	Markham	L3P	
Shalaka Jadhav	Toronto	M3N	
Shankari Sreetharan	Toronto		
Shannon Jeffries	Waterloo	N2L	
Shannon McCloy	Salem		97306
Shanze Kazi	Vaughan	L6A	

Sharlene Nguy	Waterloo	N2L
sharon etwell	Kitchener	n2c 2r1
Shauna Nedelec	Victoria	V8X
Shawn Pinsonneault	Montreal	H3h 1s1
Shay Ravi	Markham	L3P
Shefaza Esmail	Mississauga	L4Z 4H9
Sheila Rheberg	Sydney	2194
Shelby MacGougan	Kitchener	N2G 3A3
Shelley Hulan	Kitchener	N2E
Shelly M	San Francisco	94103
Shenise Cousins	Waterloo	N2L
sheri newton	Barrie	l4n9n5
Shi Qi Tu	Waterloo	N2L
Shima Bab Hadiashar	Waterloo	M2N
shirley zhang	Waterloo	N2L
Shivan Kalnins	Waterloo	N2J2W8
Shoreen F	St. Catharines, ON	L2T 1M1
Shoshannah Byrne-Mamahit	Cambridge	N1T
Shreya Mahajan	Waterloo	N2L
Shuchang Zhuge	Waterloo	N2L
Shuhao Liu	Waterloo	N2L
Sidharth Baveja	Waterloo	N2L
Sidra Hasan	Mississauga	L5V 352
Sienna Ferreira		
sierra wuttunee	Battleford	S0M 0EO
Sigi Buzi	Cambridge	N2L
Silvia Martinelli	Vienna	1030
simar kaur	Carlsbad	92008
Simar Mangat	Brampton	L6X0W3
Simon Stupar	Los Angeles	90022
Simone Delaney	Fredericton	E3B 1K5
Simran boparai	Surrey	V3Z
simran parmar	Waterloo	N2L
Simrat Saini	Waterloo	N2L

Sindre Kaspersen	Skutvik	8290
Sinduya Sivayoganathan	Waterloo	N2L
Siobhan Allman	Toronto	M4V1S6
Siobhan Kelly	Waterloo	N2L
Siqi Wen	Waterloo	N2L
Sirah Ghuman	Waterloo	N2L
Sirpa Lusa	Kitchener	N2M
Skye Chen	Scarborough	M1S
skylar zhang	Waterloo	N2L
sofia slater	Waterloo	N2L
Sofia Villasmil	Oakville	L6M
Soleiman James	Port Moody	V3H
Solveig Denis	Notre-Dame-de-l'Île-Perrot	J7V7P2
Sonaina merchant	Waterloo	N2L
Sonia Gauld	Waterloo	N2L
Sonia Sethi	Toronto	M3N
Sonya Gemayel	Toronto	M6G
Soo-Leng Aw	Kuala Lumpur	
Sophia Brooks	Dunville	A0B2Y0
Sophia Richardson	Waterloo	N2L
Sophia Sanniti	Toronto	N2L
Sophia Sareen	Waterloo	N2L
Sophia York	Ottawa	K1C
Sousheiant Khasheepour	Richmond Hill	L4E
sparrow hawk	Saint John's	a1e1z9
Sparsh Gandhi	Brampton	L6R
Steffen Reitsma	Dartmouth	B3B 1A5
Stella Arthur	Waterloo	N2K
Steph McIntyre	Waterloo	N2L
Steph Smith	Kamloops	V2C 4V6
Steph Svaik	Guelph	N1E
Steph Swanson	Waterloo	N2L
Stephanie Gulliford-Mackay	Red Deer	T4P
Stephanie Kramer	Waterloo	N2V 1V5

Stephanie Richardson	St.Thomas	N5R 1K7
stephanie shokoff	Waterloo	N2L
Stephanie Singh	Waterloo	N2J2Z1
Stephen Melczer	Philadelphia	19104
Stephen Svenson	Waterloo	N2J 3P8
Steve Hakkarainen	Sendai	980-0812
Steve Jedinak	Brooklin	L1M 1R2
steve laughlin	waterloo	n2t-1g4
Stew Mathematics	Ottawa	K2p1e7
Stewart Niven	Guelph	N1K 1K6
Stuart Vickaryous	Coquitlam	V3b 7c7
Suhaila Kothdiwala	Waterloo	N2L
Sukhman Tamber	Waterloo	N2L
Sukwon Choi	Surrey	V3R
Sulaiman Majeed	Kitchener	N2G
Sumaira Malik	Toronto	M2N 7L4
Sumeet Parmar	Deep River	K0J
Summer Watt	Toronto	M4R
Sundus Salame	Cambridge	N1R 7J5
Sung-Ryung Shin	Richmond Hill	L4C
Sunjyot Sodhi Sodhi	Brampton	L6Y5T4
Susan Hay	Haliburton	K0M 1S0
Suzanne Perdeaux	Sudbury	P3E
Sydney Dolick	Waterloo	N2V 0C3
Sydney Fremont	Regina	S4n 7c3
Sydney George	Waterloo	N2L
Sydney Symak	Newcastle	L1B
Sydney Waring	Waterloo	N2L0C5
Syeda Javeria Hasan	Waterloo	N2L
Syeda Tasnia Hasan	Toronto	M4P
T H	Kingston	K7M 8X4
Tabitha Mueller	Kitchener	N2m2e1
Tabitha Williams	Ottawa	K2P2C9
tait de st croix	Kitchener	N2G

Talia Damerino	Waterloo	N2L	
Tallis Baker	Eight Mile Plains		4113
Tamara Khalaf	Waterloo	N2L	
Tanis Shapka	St paul	T0a3a0	
tanishi naik	brampton	N1P1G4	
Tanishq Maheshwari	Richmond Hill	L4C	
Tanya Schmah	Ottawa	K1N 6N5	
Tara Chamberlain	Kitchener	N2M	
Tara Chambers	Victoria	v8n 2w7	
Tarek Sfeir	Montreal	H3H1R4	
Taryn Forster	Waterloo	N2J	
Tasha McFarland	Waterloo	N2L	
Tasha-Leigh Gauthier	Waterloo	N2T2K8	
Tasnia Hasan	Waterloo	N2L	
Tatyana Jackson	Hamilton	L8M	
taya gianforte	Fort-coulonge	j0x1h0	
Taylor Brownell-Riddell	Waterloo	N2J 4T5	
Taylor Crawford	Ottawa	K2J	
Taylor Kangas	Hamilton	L8P2C8	
Taylor Legere	Kitchener	N2M	
Tejas Pandit	Waterloo	N2L	
Tejinder Babbar	Markham	L3P	
teresa chan	ETOBICOKE	M9B 0A3	
Teresa Paz-Soldan			
Teresa Petosa	Toronto	M4V	
Teresa Yang	Central District		
Terez maria csonka	Toronto	m3c114	
Terry Evans	Maple Ridge	V2X	
Thea Elliott			
Thenusha Satsoruban	Waterloo	N2L 3W6	
Théo Curras	Rosemère	J7A 2V8 ANDHERI	
THERESA COELHO	MUMBAI 400058.	WEST	
Therese Paguio	Pickering	L1V	

Thilanya De Silva	Toronto	M2J	
Thomas F Boyd	Calgary	t2y4r2	
Thomas Fleming	guelph	n1g 4h5	
Thomas Kagera			
Tiffani Milburn	Danville		40422
Tiffany Tam	Waterloo	N2L	
Tim Gouvs	Waterloo	N2L	
Tim Turner	Mississauga	L5J	
Timothy Devarajah	Scarborough	M1S	
Timothy Hunting	Waterloo	N2J	
Timour Petrov	Toronto	M6H	
Tina Fang	Waterloo	N2L	
tina sevic	Kitchener	n2n3n2	
Tobias Nakamura	Calgary	T2T	
Tom Derlis	Caesarea	L0B 1E0	
Tony Shum	Toronto	M5E	
Tori Waite	Waterloo	N2L	
Tracy Griffin			
Tripti Jain	Mississauga	L5N 6P2	
Trish Hagan	Hamilton	L8T1B7	
Trisha Pond	Mississauga	L4W	
Troy Munn	Kelowna	V1X5C7	
Troy Nguyen	Ho Chiinh		
Tushar Sehgal			
Tyler Chin	Waterloo	N2L	
Tyler Eschenwecker	Kitchener	N2H	
Tyler Herrington	Newmarket	L3Y	
Tyler Veldkamp	Winnipeg	R2W 0C6	
Upneet Bala	Waterloo	N2L3G6	
Valentina Aguayo Martiri	Toronto	M6s2g1	
Valerie Uher	Toronto	M6B	
Vanessa Bennett	London	N6C	
Vanessa Hu	Waterloo	N2L	
Vanessa Ramos	Waterloo	N2L	

Vanessa Sokic	Toronto	M9A 1Y6
vanessa vahedi	Waterloo	N2L
Varda Tariq	Toronto	L6Y
Vasundhara Saravade	Waterloo	N2L
Vasundhara Saravade	Kitchener	N2M
Vedanjali Chhabra	Waterloo	N2L
Venus Ho	Markham	L6C2J7
Vera Wagner-Pichl	Toronto	M5B
Veronika Moulton	Greenford	UB6
Vic Mantha-Blythe	Edmonton	T6H
Victor Malaiu	London	N6k
Victoria A	Toronto	M5B2R9
Victoria Blaz	Burlington	L7L 3T4
Victoria Chang	Waterloo	N2L
victoria gomez	Waterloo	N2L
Victoria Lumax	Brantford	N3R 1A7
Victoria Vandenberg	Etobicoke	M9R
Viktoriya Vinik	Waterloo	N2L
Vimal Patel	Burlington	L7r 3s2
Vincent Boldt	Waterloo	N2L
Vincent Macri	Waterloo	N2L
Vincent Phan	Toronto	M6H
Vishaal C	Mississauga	L5H
Vishavjeet Virk	Oshawa	L1G 8A3
Vishwa Patel	Waterloo	N2L
Vithushan Aravienthan	Waterloo	N2L
Vivike Knutson	Kitchener	N2P
Vlad Nica	Innisfil	L9S
Warren Custer	Pelican Narrows	S0P0E0
Wasiq Mohammad	Waterloo	N2L
Wei Jia	Waterloo	N2L
Wendy Ashby	Kitchener	N2A 0A8
Wendy Frise	Fredericton	E3B
Wendy Lee	Central District	

Wendy Little	Saskatoon	S7W
Wendy Ma	Waterloo	N2L
Wilfrid Yang	Markham	L6C 3H6
Will Wang	Ottawa	K2P
William Campbell	Waterloo	N2L 5V7
William Liu	Brooklyn	11226
William Luders	Kitchener	N2C
William Tran	Waterloo	N2L
Wilson Lam	Waterloo	N2L 3E5
Xenia Kwan	Waterloo	N2L
Xuan Nguyen	Thornhill	L3T 7N1
Yaalini Varatharajah	Toronto	M6G
Yan Liu	Horsham	19044
Yang Yang Xue	Waterloo	N2V 2X6
Yartha Devendra	Waterloo	N2J
Yasmeen Al-Aubiydy	Ottawa	K1J
Yasmeen Razvi	Waterloo	N2L
Yasmin Akter	Waterloo	N2L
Yavora Videnova	Kitchener	N2N
Yesul Cho	Cambridge	N1S2H4
Yingzhi Tang	Toronto	M5R
Yonatan Strauch	Waterloo	N2L2C7
Yue Fan	Waterloo	N2L
yuge he	Waterloo	N2L
Yves engler	montreal	H3h 1k3
Zac Pelletier	Burnaby	V5A
Zach Schofield	Waterloo	N2L
Zachary Lukes	Missoula	59802
Zaina Rehan	Waterloo	N2L
Zainab A.	Lahore	
Zakir Virani	Waterloo	N2L
Zen Bandelhi	Waterloo	L9T 5K4
Ziwei Chen	Waterloo	N2L
Zoey Friel-Bartlett	Toronto	M4G

Zoya Hussain

Halifax

B3H



To: Board of Governors	Report Date: 10/16/2020
From: President and Vice-Chancellor	Board Meeting Date: 10/27/2020
Subject: President's Update	

1.0 PURPOSE

- For Approval For Discussion For Information
- Open Session Confidential Session

2.0 MOTION/DISCUSSION/INFORMATION

This report is for information only.

3.0 EXECUTIVE SUMMARY

This report provides a campus COVID-19 status update, a strategic plan update, and my goals for 2020-2021. Also attached are Vice-President portfolio updates.

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

A strategic plan update is included in the analysis below.

5.0 UNIVERSITY RISK ASSESSMENT

The President is responsible for the overall risk management framework, and mitigation strategies at the institution. In particular, the President has primary responsibility for the following risks: competition, leadership and reputation.

6.0 ANALYSIS/UPDATE

As the October Board of Governors' meeting approaches, I wanted to provide a few updates. Since March, we have provided several updates on the COVID planning efforts at the University.

This is a unique time for everyone. However, one of our strengths is our ability to acknowledge the uniqueness of our community and we have worked hard to acknowledge the complexities that COVID-19 has presented while providing a supportive, flexible environment that empowers us to continue to move forward.

Some current campus insights:

- Just over 2,000 students living on campus and on average 3200 students/staff on campus daily
- Fall courses primarily delivered online/remotely (mostly asynchronous activities, some synchronous). About 7 undergrad courses and 13 graduate courses are being delivered in-person. Additionally, 28 labs are being offered. There are about 2,000 students taking in-person offerings.
- In person classes are limited to 30 students with on-line options.
- All faculty operating labs have had to submit a safety plan approved by the Office of Research
- Mandatory face coverings in common spaces, classrooms, teaching labs, and washrooms
- COVID-19 testing and assessment available on campus for all students and employees (working to increase access)

- Physical distancing in place and food services operating in main residence area. Most students in residence have own kitchens, others with full meal plan.
- Enhanced cleaning of all UW spaces
- Students who fail to comply with public health protocols, on or off campus may be subject to discipline as “non-academic offences” through Policy 71.
- Daily Campus (Health) Check-in required for all students and employees designed to identify symptoms and restrict on-campus activity if symptomatic
- Campus occupancy monitoring tool used to identify concentrations of individuals above specific limits
- Campus buildings are open where required for student access during instructional hours
- Plexiglass barriers in high-contact areas and touchless technology (in residences only) installed
- Some campus dining spaces open with physical distancing and plexiglass barriers
 - Many students using new Food Services app to order food for delivery on campus
- No visitors allowed in residences and no social gatherings on UW campuses
- Limited visitors allowed on campus [Limited visitors allowed](#)
- University-sponsored international travel is prohibited; domestic travel is discouraged and where necessary must be approved [by a Dean, Vice-President or VPRI \(for field work\)](#)
- Operational Return to Campus Staffing plans in place that adhere to physical distancing and cleaning protocols. All employees must complete training before returning.
- Winter term will be similar to Fall – mostly online with some small in-person classes and graduate student courses

The COVID-19 pandemic will not be “fully over” or substantially mitigated by vaccines, treatments or other public health measures for the foreseeable future. We are putting in place a framework to manage COVID-19 at our university over the medium to long term.

Strategic Plan Acceleration

Planning and development work on the 2020-2025 Strategic Plan continued throughout the summer and into the fall of 2020. A key effort in this process was an analysis to align the planned actions in the COVID-19 context. The analysis concluded that the Strategic Plan themes, strategic commitments, goals and objectives were overall highly relevant, with three distinctly relevant themes requiring timely response to the emerging opportunities: lifelong learning, online and technology-driven learning and “Health, Society and Technology”.

Further analysis also identified priority concerns in light of COVID-19 – a need to reaffirm the commitment to a) provide a high quality online and blended courses b) address areas of research strengths that relate to global problems; c) weave equity, Indigenous initiatives, sustainability and organizational efficiency across all commitments; and d) facilitate student and employee wellness, engagement and a sense of community in a virtual world.

The action planning teams have used this analysis and input to develop measurable outcomes and targets (where applicable), for their respective goal areas and identify priority initiatives to advance the seven strategic commitments. The action planning teams are now working on integrating the recommendations from three task forces (interdisciplinary research and learning, innovation, and health, science and technology) into the implementation plan. This process has further illustrated the commitment to pursuing an integrated accountability framework and continuous monitoring, supported by evidence-based decision-making.

As we continue with the implementation activities, the teams and university leadership also remain committed to continue to assess the COVID-19 impact and challenges while embracing opportunities that it

brings to accelerate relevant areas of the strategic plan. In the coming months, the teams will be working with the university leadership to further operationalize and assess the feasibility of the initiatives, along with ensuring that they are embraced across our complex and diverse environment. Below you will find some milestones, targets and outcomes tied to the signature commitments in the strategic plan.

Signature Commitments	Milestones, targets and Other outcomes for 2025
<p>Empower students to <i>leverage diverse learning experiences</i> by creating more flexible learning pathways.</p> <p>Build on our global leadership in co-operative education to provide every undergraduate and graduate student with expanded options in experiential learning.</p>	<p>90% of Waterloo undergraduate graduating students report participating in two or more high impact practices by 2025 (currently 61% according to 2020 NSSE).</p> <p>Return to pre-COVID co-op student employment and participation rates.</p> <p>Double enrolment in EDGE from 6% to 12%. Increase the proportion of graduate students who are involved in practica and internships – whether centrally or locally administered – by 50%.</p>
<p>Leverage Waterloo’s vast employer network and academic strengths to deliver a dynamic framework of learning- integrated work for professionals seeking to thrive and lead.</p>	<p>Establish a Lifelong Learning Business Unit.</p> <p>Establish an Open Enrolment framework that will provide a pathway to enroll non-traditional students by 2022. Establish credentialing framework that includes microcredentials and offers at least six microcredentials by 2023.</p>
<p>Be a global powerhouse for commercializing research, developing new enterprises and supporting business growth.</p>	<p>Single innovation banner for research commercialization and innovation.</p> <p>Maintain the top position in Canada and one of the top 50 ranking in Pitchbook for Undergraduate VC-backed Entrepreneurs (# 22 in 2020).</p>
<p>Align our research strengths deliberately with important global challenges.</p>	<p>Increase in global influence in strategic areas.</p> <p>Increase research publications/grant money connected to addressing global challenges.</p>
<p>Lead globally and nationally at the interface of society, health and technology.</p>	<p>Develop a comprehensive health strategy, with lifelong learning programs and key partnerships.</p> <p>Develop an Interdisciplinary Health Institute. Develop Health Sciences Campus.</p>
<p>Create a sustainable, supportive environment for living, learning, working and discovery that is worthy of our students and university community.</p>	<p>Implement the following as lenses across all initiatives of the plan: equity, Indigenous initiatives, sustainability, internationalization, wellness and mental health, and organizational efficiency.</p> <p>Decrease the percentage of students who do not feel the university shows a sincere interest in their wellbeing from one out of four to 10% (NCHA 2016). Make UW a smoke- and vape-free campus. Improve employee engagement scores relative to baseline. Develop and implement an institutional equity data strategy. Achieve goals and objectives of the sustainability strategy and climate action plan. Develop and implement UW indigenization strategy. Increase international student overall satisfaction.</p>

New Format of Portfolio Updates to Governors

We are taking a new approach to written updates to the Board. Portfolio updates from Vice-Presidents on key initiatives will now be attached to my report. The goal is to provide concise reporting, articulate how each report aligns with strategic planning documents, legislation, policy or procedures, as well as alignment with the Board's oversight responsibilities with respect to risk. Any financial implications or communications strategies relevant to the report are also identified as applicable. Vice-President's will be available to elaborate or respond to questions at the meeting. If you do have any questions in advance, please let us know. I hope that this change will be useful to governors and am happy to receive further feedback.

We also have governance updates from Mat Thijssen (Climate Action Plan/Sustainability) and John Hirdes (Committee on Student Mental Health) included in the package. They will speak briefly and answer any questions at the upcoming meeting. Norah McRae will highlight the key areas of focus for the new Co-operative and Experiential Education Strategic Plan which is also included in your package.

Karen Jack, Andrea Kelman and I have been having informal conversations with Board of Governor constituency groups to discuss any topics that may be of interest or concern and engaging in dialogue around particular strategic plan objectives that are more crucial than ever. I have found these meetings in smaller group settings to be very beneficial.

President's Goals 2020-2021

Earlier this year I revised my goals to focus on the immediate, urgent and crucial actions while still committing to the delivery of most of the goals identified in the Strategic Plan. Our approach for this year is to survive, reflect, innovate and thrive. We are well aware that the "new higher education normal" will look different from what we have known. One overarching goal must reflect the situation we currently face and that I believe will affect us for this upcoming academic year. We need to maintain and strengthen the value proposition of quality education, experiential education infused with globally relevant research and our trademark entrepreneurial spirit and potential while navigating the future-changing challenges facing our life.

In addition to and in support of the implementation of the Strategic Plan, please find key elements of my revised goals for 2020-21.

- Build a new financial and educational delivery model to meet the new challenges while ensuring responsible use of the University's infrastructure and physical and human resources.
- Develop/implement a revised marketing and communication strategy to maximize domestic/international recruitment and retention that is anticipated to be significantly affected by COVID-19
- Invest in and strengthen our on-line educational and operational capabilities
- Mobilize Waterloo's distinctive brand of preeminence in innovation, entrepreneurship and knowledge transfer to aid economic stimulus for a transformed society
- Establish a "shovel ready" list in anticipation of a Federal stimulus initiative
- Establish the first stage of campaign strategy, matching cases and potential donors for 2020-2021
- Work towards securing funding for the Health sciences Campus and Velocity incubator/Kitchener
- Appointment of a director and formal establishment of a Lifelong Learning Institute, complete with business plan and the first set of courses/programs offered

7.0 FINANCIAL IMPLICATIONS

None

8.0 COMMUNICATIONS STRATEGY

None

9.0 INPUT FROM OTHER SOURCES

Director, Safety Office, Associate Vice-Provost Students, Associate Vice-President, Academic, Director, Strategic Planning & Evaluation, Registrar

ATTACHMENTS

VPAP Update

VP Research Update

VP Advancement Update

VP University Relations Update

VP Administration & Finance Update

Committee of Student Mental Health Update - Hirdes

Sustainability Climate Action Plan Update - Thijssen

To: Board of Governors	Date of Report: 10/9/2020
From: John Hirdes	
Subject: Committee on Student Mental Health Update (John Hirdes)	
Responsible Portfolio: Vice-President Academic and Provost	Board Meeting Date: 10/27/2020

1.0 PURPOSE

- For Approval
 For Discussion
 For Information
 Open Session
 Confidential Session

2.0 MOTION/DISCUSSION/APPROVAL

This report is for information only.

3.0 EXECUTIVE SUMMARY

As of October 2020, implementation of 60% of the recommendations from the President’s Advisory Committee on Student Mental Health has been completed. Work is currently underway on about 30% of the recommendations. The remaining 10% will be dealt with in the Winter 2021 term. The Committee on Student Mental Health (CoSMH) is hosting the University of Waterloo’s inaugural Virtual Conference on Student Mental Health Research on Thursday, November 5th. This conference is being held as a response to recommendations 35 and 14. It will feature completed and in-progress research being conducted by faculty, staff, and students. An extension of the mandate of CoSMH to April 2021 has been approved by the Office of the Provost. It is expected that all PAC-SMH recommendations will have been implemented by that time.

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

The work of the Committee on Student Mental Health is well aligned with the Strategic Plan.

Theme: Strengthening Sustainable and Diverse Communities:

Objective: Work in partnership with all stakeholders, mobilize the commitments from the Okanagan Charter and Health Workplace statement to embed and promote sustainability and foster personal development and supportive environments for mental health and resilience, physical health, social inclusion, belonging and spiritual well-being in campus culture.

5.0 UNIVERSITY RISK ASSESSMENT

There are no risk implications arising from the enterprise risk management framework.

6.0 ANALYSIS/UPDATE

The Committee on Student Mental Health will host the University of Waterloo's inaugural Virtual Conference on Student Mental Health Research on November 5th, 2020, as part of [Thrive Week](#). The goal of this event is to bring together members of the Waterloo community to share knowledge, connect researchers, and promote mental wellness through 10-minute oral presentations and pre-recorded poster presentations. Topics broadly pertaining to student mental health will be explored with an emphasis on the following key themes:

- Prevention of mental health issues and promotion of mental health-care strategies
- Suicide prevention
- Impact of trauma and sexual violence
- Effects of racial injustice
- Effects of sexual orientation and gender identity discrimination
- Harm reduction approaches to substance use
- Mental health impact of COVID-19

This event was created in response to Recommendations 35 from the President's Advisory Committee on Student Mental Health (PAC-SMH), which calls for further exploration of the development of a research institute or specialty area in student mental health and wellness. In addition, the conference is a response to Recommendation 14, which calls for initiation of a continuous dialogue in the campus community regarding the abovementioned themes.

Poster presentations will be available to adjudicators and attendees ahead of the event, which includes time for attendees to ask questions and engage with poster presenters. Posters submitted by students are eligible for a cash award provided by the Office of Research. By highlighting multidisciplinary faculty and students conducting research in emerging adult and post-secondary mental health and wellness, we aim to create connections that will serve as a base for the development of a UWaterloo research network on mental health modeled after the [Network for Aging Research](#).

Since January of this year, the committee has voted to confirm the completion of 8 PAC-SMH recommendations:

- Recommendation #4, development of proper recourse mechanisms for students who allege a violation of an approved accommodation request related to mental health;
- Recommendation #13, adoption of best practices in space planning, redesign, and allocation;
- Recommendation #21, development of a campus-wide training program in resiliency;

- Recommendation #25, partnership with Canadian Centre on Substance Use and Addiction Postsecondary Education Partnership – Alcohol Harms;
- Recommendation #28, investment in training and research for underserved and disproportionately affected populations;
- Recommendation #29, promotion and enhancement of available funding for mental health services on and off campus;
- Recommendation #31, engagement with off-campus mental health services and community partners; and
- Recommendation #35, exploration of a research institute or specialty area in student mental health and wellness.

Progress updates can be tracked on the [CoSMH website](#).

A formal request to extend the CoSMH mandate and funding from December 2020 to April 2021 has been approved by the Office of the Provost.

7.0 FINANCIAL IMPLICATIONS

At this time, there are no additional costs associated with the Virtual Conference on Student Mental Health Research.

The extension of CoSMH's mandate involves four months of funding for a 1.0 FTE project coordinator, a co-op student, and a part-time student.

8.0 COMMUNICATIONS STRATEGY

Not applicable.

9.0 INPUT FROM OTHER SOURCES

None.

ATTACHMENTS

None.

To: Board of Governors	Date of Report: 10/9/2020
From: Director of Sustainability	
Subject: Update on Campus Sustainability Progress (Mat Thijssen)	
Responsible Portfolio: President and Vice-Chancellor	Date of Board Meeting: 10/27/2020

1.0 PURPOSE

- For Approval
 For Discussion
 For Information
 Open Session
 Confidential Session

2.0 MOTION/DISCUSSION/APPROVAL

This report is for information only.

3.0 EXECUTIVE SUMMARY

Waterloo continues to build cross-campus partnerships to accelerate environmental sustainability objectives, informed by the Environmental Sustainability Strategy and new climate action plan.

- This report highlights activity from 2019 and early 2020, including selected key performance indicators relevant to the 2020-25 Strategic Plan, and example initiatives.
- It also outlines several external forces shaping activity across the sector.
- Overall, progress is advancing and will need continued coordination and resources in light of evolving circumstances.

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

This report covers topics pertinent to the fulfillment of Policy 53: Environmental Sustainability and speaks to Waterloo’s commitments/objectives in the 2020-2025 Strategic Plan:

- **Signature Commitment:** Create a sustainable, supportive environment for living, learning, working and discovery that is worthy of our students and University community.
- **Sust./Diverse Communities 1.1** Working in partnership with all stakeholders, mobilize the commitments from the Okanagan Charter and Healthy Workplace statement to embed and promote sustainability and foster personal development and supportive environments for mental health and resilience, physical health, social inclusion and belonging, and spiritual well-being in campus culture.

- **Sust./Diverse Communities 4.1** Become a societal role model of sustainability in policy, process and practice through full implementation of the University’s Environmental Sustainability Strategy and meaningful action to address climate change in our operations.
- **Sust./Diverse Communities 4.2** Leverage our entrepreneurial spirit and model organizational efficiency and sustainability in all domains of our service.

5.0 UNIVERSITY RISK ASSESSMENT

This report supports the Board’s oversight responsibilities as they relate to selected relevant risks from the University Risk Management Framework, and it should be noted that, in addition to risk minimization, there are substantial opportunities:

Risk Category	Risk	Brief Description
Environmental	1. Competitor	Leading post-secondary institutions are increasing their commitments in campus sustainability initiatives, both internally and through emergent collaborative networks.
	2. Government Policy	Various sustainability aspects have statutory compliance obligations, with increasing likelihood of further regulation.
Financial Resources	5. Financial	Sustainability practices emphasize long-term and lifecycle cost efficiencies in key areas, and require sufficient investment.
Physical Plant	19. Physical Infrastructure	Integrating sustainability considerations moves beyond compliance requirements and effectively stewards and modernizes infrastructure for teaching and research.
Core Mandate	21. Reputation	There is increasing expectation for academic institutions to model leadership in social and environmental responsibility.
	22. Student Satisfaction	Students continue to express concern over sustainability issues and services on campus.
	27. International	Sustainability issues are emerging as complex top global concerns of industry, public policy, and civil society.

6.0 ANALYSIS/UPDATE

6.1 Progress Updates from the Strategy:

Waterloo continues implementation of its [Environmental Sustainability Strategy](#), consistent with the requirements of Policy 53: Environmental Sustainability. The Strategy defines key areas of campus sustainability action across teaching and learning, operational practice, and engagement of students and employees, and which are linked to objectives within the Strategic Plan. A full synthesis report on progress, as well as underlying data and methodologies, is published annually to the sustainability website’s [Reporting Page](#), and will be available in November reflecting on data from the 2019 calendar year and activity through June 2020.

Several key performance indicators from the Sustainability Report include:

Indicator	Performance Metric	Target
Completion of Environmental Sustainability Strategy objectives	5/27 (2019)	27 complete (2025)
STARS Sustainability Ranking	Silver (2018)	Gold (2025)
Change in Scope 1 & 2 greenhouse gas emissions from 2015 baseline	+8% (2019)*	-17.5% (2025)
Waste diversion rate	33% (2019)	60% (2025)
Percent of trips to campus using active and sustainable transportation	86% (2018)**	90% (2025)
Percent of Food Services purchases locally-sourced, sustainably certified	31% (2019)	40% (2025)

* There are several causes for this increase, including temporary use of backup fuel oil, a slightly colder winter, and an increase to the carbon intensity of grid-supplied electricity, however the overall growth trend will need to be addressed and resources mobilized

** This will have significant shift and likely already achieved in the short term due to COVID-19

6.2 Key Activities:

There are multiple collaborative projects taking place across Co-operative Education, the faculties, Plant Operations, Housing, Food Services, Central Stores, the Sustainability Office, and many more units on campus. Highlights of activity over the past year include:

- Developing Waterloo’s first climate action plan, *Shift:Neutral*, which creates short-term targets and a roadmap for reducing carbon emissions and energy intensity of campus operations.
- Undertaking a third-party energy audit of all campus buildings to further articulate opportunity areas for efficiency projects and add detail to the low-carbon roadmap.
- Beginning development of new guidelines for future infrastructure to ensure low-carbon design and energy efficiency.
- Integrating sustainability content into the Professional Development 1 course to expose co-op students to core concepts, and launching the Sustainability Diploma.
- Hosting and expanding the Sustainable Development Solutions Network Canada, including over the past year supporting the *Together | Ensemble* conference on the UN SDGs.
- Continuing installation of standardized waste receptacles to improve source separation of recycling, and launching organics waste collection in department lunchrooms.

6.3 Engaging the Waterloo Community:

These efforts are also building important relationships and opportunities to meaningfully engage students and employees. For example, Waterloo’s updated waste signage to improve sorting across campus was a result of a Master’s student project in collaboration with Plant Operations, with resources from the Sustainability Action Fund. This is a fantastic example of bridging academic expertise and capacity to operational practice through the Living Lab. The Green Residence Ambassador program is creating peer-to-peer leadership and professional development solutions within residences. Waterloo’s partnership with WWF Canada means students can count these efforts toward a Living Planet Leader designation that they can add to resumes and career profiles. Hundreds of students are networking around sustainability topics, including through

student-led events such as the *Conference on Sustainability in Engineering, Global Solutions Conference*, and *Hack the Plastics*. And employees continue to be interested in learning more about campus sustainability, with over 370 in progress or already completing the 7-module Sustainability Certificate training series.

6.4 Updates to Landscape:

There are several important changes noted throughout the report that will impact Waterloo's sustainability efforts. COVID-19 presents immediate and uncertain impacts. With the majority of students and employees working remotely, Waterloo has likely already achieved its objective to increase sustainable commuting, for example, and absolute waste generation on campus has significantly decreased. It is not yet clear whether these changes will persist, as other potential trends – including COVID-19 risk perceptions around transit use and reusable items – may reverse progress as in-person activity resumes.

There has also been renewed discussion around a “green recovery”, and this has been reflected in policy statements at the federal level within Canada. It remains unclear what specific initiatives will emerge under this umbrella, but there may be risk and opportunity through regulatory approaches (for example single-use plastics phase-out or carbon mitigation requirements) or market mechanisms (incentives or pricing).

Finally, sustainability momentum continues to increase across the higher-education sector. Peer institutions globally continue to invest in maturing, sophisticated, and innovative sustainability efforts, and there are new partnerships catalyzing to accelerate sector-wide action. These include the Times Higher Education University Impact Rankings based around the UN Sustainable Development Goals, in which Waterloo placed very highly (16th globally overall). As more institutions enter this ranking, competitiveness is expected to increase substantially. Waterloo continues to grow the SDSN-Canada network as the host institution, and in 2019/20 Waterloo was an inaugural member of the emergent University Global Coalition. These indicate a strong central role for Waterloo in both existing and emerging global networks anchored around sustainability and the Sustainable Development Goals.

7.0 FINANCIAL IMPLICATIONS

There are no financial implications at this time.

8.0 COMMUNICATIONS STRATEGY

Not applicable

9.0 INPUT FROM OTHER SOURCES

This report extracts information from the 2020 Environmental Sustainability Report, which was prepared by the President's Advisory Committee on Environmental Sustainability.

ATTACHMENTS

None



To: Board of Governors	Date of Report: 10/16/2020
From: Vice-President Academic & Provost	Board Meeting Date: 10/27/2020
Subject: Vice-President Academic & Provost Report	

1.0 PURPOSE

- For Approval For Discussion For Information
 Open Session Confidential Session

2.0 MOTION/DISCUSSION/INFORMATION

This report is for information only.

3.0 EXECUTIVE SUMMARY

This report provides an update on initiatives underway within the Vice-President Academic and Provost portfolio.

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

The Vice-President Academic and Provost’s portfolio directly includes and collaborates with stakeholders across the university and aligns initiatives with Waterloo’s Strategic Plan 2020-2025.

5.0 UNIVERSITY RISK ASSESSMENT

Many initiatives within the Office of the Provost help to mitigate risks identified in the Risk Register including but not limited to: Financial Resources, Human Resources, Information Technology and Core Mandate risks (Student Satisfaction, Academic Program Management, Strategic Enrolment Management and Resource Allocation). The Provost’s Office works closely with other senior administrative offices to develop and monitor mitigation strategies for potential risks associated with initiatives.

6.0 ANALYSIS/UPDATE

Summary of Spring and Fall enrolment and related activities.

Spring 2020 term was offered in a fully online/remote format. At the University level, undergraduate academic registration was robust, significantly exceeding S2019 levels (+~25%), and S2020 targets; and in relative terms similar for domestic and international student groups. Graduate registrations were also healthy and slightly higher than S2019 levels. Some of the increased academic registration activity at the undergraduate level resulted from students (~2,000) who were originally scheduled for a co-op work placement choosing to enroll in an academic term; this was higher for international than for domestic students on a relative basis. Although >5,600 students were employed in co-op work terms, this was down ~30% vs S2019, and employment rate overall was ~86% compared to ~95% in S2019. Note that there is considerable Faculty variability with respect to student registration vs projections for S2020.

Fall 2020 term is being offered in a mostly online/remote format, but with select in person courses and course components. At the University level, undergraduate academic registration is currently expected to

exceed F2019 levels by ~3% overall, with international students comprising ~21% of all UG students. There are currently 32,594 undergraduate students enrolled; 1,937 of those students are enrolled in at least one in-person class/lab. There are 7 undergraduate in-person courses (53 sections) and 27 undergrad in-person labs (113 sections) being offered. The overall number of currently registered graduate students is similar to final registered values for F2019, with ~33% of the graduate students being international. A total of ~5800 students are currently employed on co-op work terms, with ~600 still seeking employment (F2020 employment rate 91% vs 98 % in F2019). As in S2020, some of the increased academic registration activity at the undergraduate level for F2020 is from students who were originally scheduled for a co-op work term choosing to enroll in an academic term; the frequency of which is higher for international students. Note that there is considerable Faculty variability in student registration activity vs projections for S2020.

Several new enrolment management activities occurred this quarter including: enhanced enrolment monitoring and forecasting; survey responses from newly offered and returning students were analyzed regarding their intentions to enroll in the fall term; surveys conducted of both instructors and students regarding their online experience in spring term to inform plans for offering the fall term online.

Winter 2021 class scheduling activities have begun, similar to Fall format with a focus on primarily online delivery; student course selection will begin Oct 23.

Recruitment for the Fall 2021 class has begun, with events such as the Ontario Universities Fair, Fall Open House, and high school visits being hosted virtually. These efforts are being supported by live virtual tours, on demand campus tour videos, limited in person tours, social media initiatives, webinars, search engine optimization efforts, direct email campaigns, and print collateral. We have renewed contracts with several agents with whom we've had good success recruiting successful international applicants.

Academic Program Management and Support

Efforts to maintain and enhance the quality of our academic offerings, support students' progress and prepare for the future of the university's academic life during and after the pandemic have included:

The Keep Learning Team (includes CEL and CTE, Library and ITMS) continued to provide support to instructors during transition to remote teaching. For instance, **CTE did almost 1200 consultations with instructors during Spring Term** (an 80% increase from last Spring). Hundreds more instructors took part in workshops or received more intensive support from CEL. The Keep Learning Team were primary designers of the Spring surveys of instructors and of students. (The surveys were implemented by IAP.) **Almost 8500 students completed their survey**, and the results allowed the university to provide actionable advice to instructors on what would help make Fall instruction better than Spring. New programing was launched for training TA's to work successfully in online courses. CEL is working through its responses to its program review; one primary goal is to ensure that CEL well placed to support the University's strategic goals by: streamlining production processes for most courses; adapting workflows to allow for creation of a greater range of different sorts of learning products (e.g. modules for blended classes, not just complete online courses); revising IP agreements to be ready for new innovations.

The Student Success Office, CTE and CEL partnered to provide support to 746 instructors and Teaching Assistants (TAs) in Spring 2020, on **'Early Engagement Quick Tips'**. Instructors and TAs were provided with short, timely, and actionable tips (or "just-enough, just in-time information") that could be proactively integrated into their courses. These tips helped to: create an interactive and supportive learning environment, foster positive student-instructor/TA relationships and cultivated student sense of belonging in the classroom. This collaboration is continuing into the Fall 2020 term.

The number of academic integrity (AI) cases at Waterloo has jumped significantly during the pandemic, as it has at all schools. The AI office is producing learning materials for students, holding information sessions for instructors, etc., to help in the institution's response to this alarming trend. The AI office is working with Assoc Deans and others to develop an institutional response to issues like contract cheating.

The Writing and Communication Centre has successfully put all of its programming and is running all of its consultations online. They are considering how much of their programming would profitably stay online post-COVID, since they have seen a 48% increase in workshop participation, and an 84% increase in graduate/faculty writing groups, compared to Spring 2019.

Assessment of Teaching Projects. The **Student Course Perception Project** had its work, and the plan to launch our new SCP assessment tool launched in Winter 2021, endorsed by Senate, and is working with various Faculties developing second tier (i.e. Faculty-specific) questions. The project leaders are consulting widely on campus, about the "Administrators' Users Guide" for the new SCP tool, which will launch in 2021. The project team has designed two important research projects to be carried out after the new instrument is launched to ensure, to inform efforts to make Waterloo's processes as fair as possible. The **Complementary Teaching Assessment Practices project** is finalizing Terms of Reference for its next phase, which will involve designing feasible and meaningful processes for Peer Review of Teaching and use of Teaching Dossiers.

On a portfolio-wide basis, the **GSPA is developing enhanced communications strategies** to ensure graduate students have an awareness of pathways to bring issues of concern to the University's attention, have those issues addressed, and have the outcomes of those issues made known to the graduate studies community. In coordination and collaboration with the Office of Research, GSPA has facilitated the return to research of graduate students and postdoctoral fellows through assessing requests for access to campus facilities and for research-related travel. Working with Human Resources, Finance, and the Faculties, guidelines have been developed for the employment of international students during COVID-19. Supporting the recruitment and transition of the initial cohort of AMTD postdoctoral scholars. This five-year, donor funded program has attracted enormous interest in postdoctoral appointments at Waterloo.

The **Student Service Centre** opened for in-person business on Aug 31 and is seeing about 40 students in-person daily. During the first two weeks of F2020, staff responded to 1,142 phone calls and 3,337 emails (a 30% and 185% increase from Fall 2019 respectively). Through March-August pandemic period, Centre staff worked from home responding to 11,000 phone calls and 22,669 emails—double the normal volume—and online produce orders were up 32% compared with Spring 2019. The **Academic Readiness Bursary** offered up to \$500 to aid students in covering unexpected expenses caused by the pandemic, including the costs of technology to pursue courses entirely online for Fall 2020. WUSA, GSA, Advancement, Registrar's Office and GSPA all contributed, with additional demand being covered through the Provost's Office. IST Facilitated easy access by building the Online Bursary Application in Quest (COVID-19).

The Association of Registrars of the Universities and Colleges of Canada (ARUCC) has contracted with **Digitary** to provide the **Canadian National Network for data exchange**. This effort will facilitate institutional sharing of official student data (e.g., transcripts, credentials) to support admissions, and will empower students to manage their own data sharing via a digital wallet. The University, via the Registrar's Office, is participating as a pilot institution on the implementation of Digitary this Fall; the early use case will enable us to **create and distribute digital microcredentials to students**.

Technologies and services for instruction (COVID-19). ITMS has supported and led significant growth and evolution of a number of technologies and services supporting instruction including: 350 courses requesting

Teams with course rosters for Fall; “webcasting” tools, using WebEx, Bongo, and O365 to create materials for asynchronous delivery, also for synchronous classes and office hours; Video services provided by ITMS videographers were in high demand, including to record labs for Spring and Fall; The four-member LEARN team received almost 1100 tickets in the first four days of Fall classes, well over double the number for the same period last year; With new expectations of “webcasted” lectures, four large classrooms were fitted with cameras and technology to allow the classroom instructor and presentations (computer, document camera, video, audio) to be shared in a livestream and/or to record; almost 10,000 LEARN accounts were created for incoming undergrads, enrolled in respective Faculty Waterloo Ready community groups.

The **library** supported teaching and research activities by adapting its services and responding to increased demands including: a 50% increase in library website use; a 30% increase in reference questions and research consultations; increased virtual reference activity including a 1000% increase in chats 650% increase in emails and 70% increase in in-depth virtual research consultations in S2020 vs S2019. The library arranged for access to digital versions of our print collection through the Hathi Trust Service as well Book pick up services, bookable study spaces and on-site appointments are offered in F2020.

Student Experience

Incoming undergraduate students were able to connect with their peers and prepare for their studies through the [Waterloo Ready](#) program in July/August. Over 49% of incoming students accessed the LEARN modules and 67% were active in their peer community. Approximately 500 senior student leaders from across all six faculties continued to foster these connections as they participated in creating and delivering orientation programming. GradReady is part of the overall WaterlooReady plan being delivered as a partnership among GSPA, the SSO, Co-op and the Faculties - a comprehensive set of online activities to support the orientation and onboarding of graduate students with a specific emphasis on creating a (virtual) community for our students who are learning in a remote environment. Through more than 20 events, 85% of our 2000 incoming graduate students have participated in some element of the programming. The Provost has appointed Professor Marlee Spafford as **Special Advisor to the Provost on the Student Experience**. Working with stakeholders across campus, Professor Spafford will help facilitate, coordinate, and monitor University of Waterloo student experience across portfolios.

The **new electronic health records platform** for Campus Wellness (Accuro) went live on schedule on August 10. Accuro provides a modern, cloud-based system that brings together health care and counselling services in a digital platform that provides an integrated focus on student wellbeing and care. An important feature is the Medeo virtual care platform, which has been especially important during this time as it allows campus care providers to stay connected with students who need support, even when they are not physically on campus.

Many services models have adapted to online: Print + Retail Solutions: So far this fiscal year, 79% of revenue has been generated through online sales, compared with 6.5% last year; Food Services has instituted an on-line ordering and food delivery program. **Housing and Food Services** have a self-isolation program in place for those students living in residence that contract Covid and then require self-isolation and delivered meals. Recreation facilities are in a phased reopening. Since the start of Fall 2020 term Athletics has seen over 100 hours of Open Recreation and 1250 participants/week. Over 120 teams in intramurals with 1200 participants as well as virtual programming in training, nutrition, wellness, etc.

Co-op and Experiential Education

CEE is actively engaged in the rollout of several initiatives that demonstrate the evolution of the portfolio in alignment with the University’s strategic plan. Initiatives include: CEE’s first Strategic Plan to be published online next month; [Work-Learn Institute](#) (formerly WatCACE) launch webinar; New Work-Integrated Learning Programs (WIL Programs) unit includes WatPD and EDGE; [Future of Work & Work-Integrated](#)

[Learning](#) white paper published; Microcredentials and digital badge programming development; Future-Ready Talent Framework embedded into processes and practices.

In response to COVID-19, the CEE team is focused on improving employer and student success through the development of more flexible and accessible processes and leveraging our existing networks to increase student employment opportunities both in Canada and internationally. Collectively, we call these initiatives the COVID Co-op Challenge (C3).

Employment: shortened recruitment timeline with better employer resources; looking at mechanisms to take advantage of the gig economy and enable our students to have multiple work experiences count towards a co-op credit; leveraging our employer, industry and business associations, alumni, staff and faculty networks with digital marketing campaigns aimed at increasing co-op employment opportunities

Student Engagement: Exploring 12-16 month co-op internships as an alternative to the traditional co-op model; Developed greater support for students to arrange their own jobs; Supporting a second offering of the digital skills bundle, issuing digital badges; Supporting second round of SOLA/OLA hiring including providing training for these students; For our international students in particular, exploring the viability of Mitac's Business Strategy Internships (BSI)

Operating Budget

Overall enrolment revenue for S2020 and F2020 was ~110% and 107%, respectively of the April budget projection for these periods. Extraordinary expenses and lost revenues are being consolidated. A Full budget update will be presented in February 2021. An interim adjustment to the 15% operating budget holdback will be announced and implemented late October/Early November. In-year and 2021/2022 operating budget planning will continue on an ongoing basis through April 2021.

Strategic Plan

All seven signature commitments and corresponding objectives have been assessed in the current context and adjusted as needed. The vice presidents and deans are engaged in prioritizing and assessing proposed initiatives. The Action Planning teams for each of the three broad areas of the strategic plan (Developing Talent for the Future; Research and Innovation and Diverse and Sustainable Communities) are currently discussing and refining proposed initiatives, as are the Task forces assembled on specific thematic areas.

7.0 FINANCIAL IMPLICATIONS

The Provost manages the financial implications for initiatives within the VPAP portfolio and broadly across the University.

8.0 COMMUNICATIONS STRATEGY

None

9.0 INPUT FROM OTHER SOURCES

None

ATTACHMENTS

None

University of Waterloo
REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST
Report to Board of Governors
27 October 2020

FOR APPROVAL

Faculty Name Change

Motion: That the Board of Governors approve the following name change: “Faculty of Applied Health Sciences” to “Faculty of Health” effective 1 January 2021.

Context:

The Faculty of Applied Health Sciences began strategic planning in December 2018, with the final plan approved by Faculty Council, May 2020. One of the discussions revolved around the name of the Faculty and whether a broader name would more fully represent not only our academic programs and research, but be more in line with our priorities for 2020-25 and beyond.

Senate approved the recommendation of the name change to the Board of Governors at its meeting on 21 September 2020.

Rationale:

1. The Faculty has been known by different names since its inception: It grew out of the School of Physical and Health Education in 1967, became the School of Physical Education and Recreation in 1968, and developed into the Faculty of Human Kinetics and Leisure Studies in the 1970s. The name ‘Applied Health Sciences’ was chosen in 1991, with the rationale that ‘Applied’ reflects the importance of applying research to current health challenges. However, in terms of branding identity, the word ‘Applied’ can be misunderstood by external audiences, resulting in the need to clarify what it means and why it is part of the name. In Ontario especially, the word ‘Applied’ has other connotations based on the non-academic/vocational stream in high schools, which can result in misperceptions for prospective students, and may diminish the view of our academic strengths. While we still prioritize the importance of applying academic knowledge to everyday health problems, we believe the word does not need to be in the name of the Faculty since it misrepresents our educational offerings to some of our key stakeholders: prospective undergraduate students seeking to enter health professional career paths, as well as to industry.
2. In addition, the research that is conducted in the three academic units reflects different aspects of health and well-being and looks at this from different perspectives, not just the sciences. Seeing as how our priorities for 2020-25 will encompass a multidisciplinary view of health, including that implied in recreation and leisure studies, the proposed name change would align more clearly with the idea of building healthy futures for all.
3. Finally, the name would be consistent with the other University Faculty names, which are all one word (Engineering, Arts, Environment, Science, Math), and which would add clarity to our brand offering.

Environmental scan:

Our counterparts in Canada are as follows:

- Dalhousie and York* – Faculty of Health

- McMaster, Western, Queen's, Manitoba, SFU* and Ottawa – Faculty of Health Sciences
- Manitoba – also has a Faculty of Kinesiology and Recreation Management
- Regina* – Faculty of Kinesiology and Health Studies
- Winnipeg* – Gupta Faculty of Kinesiology and Applied Health
- Brock* – Faculty of Applied Health Sciences

Furthermore, some universities have programs in kinesiology, recreation and public health, but do not use 'Health' in their Faculty names. Because of this inconsistency in naming conventions, and the range of Faculty names related to the study of health, it is reasonable to expect that the name change will not have any negative impact on our place in the Canadian educational system.

Moreover, students tend to identify with their program name, not that of the Faculty, which would not be affected by this change at this time.

**No medical school*

Consultation process

The proposed name change was approved unanimously by the AHS Strategic Planning Advisory Committee, and is one of the recommendations arising from the 2020-25 AHS Strategic Plan. The recommendation will be presented at Administrative Council, Faculty Council, Deans' Council, Senate and the Board of Governors.

Faculty, staff and graduate students were asked for input via the Dean's monthly newsletter, and then via a survey on the final draft of the Strategic Plan 2020-25. Faculty and staff were also consulted at various committees, and were invited to contact a member of the [Strategic Planning Advisory committee](#) to share comments.

Undergraduate and graduate students were consulted via their student associations, with special consideration being made to retain the AHS acronym for undergraduate (or all) students. The kangaroo mascot (AHSSIE) and AHSUM, the undergraduate student association, both rely on the acronym. There are possibilities for retaining it if it were to change, for example, to represent the "Association of Health Students." Students were also invited to take a survey and to share opinions with the Committee.

Alumni were also informally canvassed throughout the year by the Dean and Advancement Director while in Boston, Vancouver, Ottawa and Toronto. Support for the proposal was forthcoming, often wholeheartedly.

Timelines 2020 if name approved

To be in place for the Fall 2022 recruitment cycle, these are the timelines that need to be met:

February – Consultation meetings with faculty, staff and students begin

February 19 – Report to Admin Council

March 27 – Report to Faculty Council

April 1 – Deans' Council for discussion

May/June – Admin Council for approval

June – Faculty Council for approval

August – Report submitted for Senate meeting

September – Deans' Council for information

September 21 – Senate meeting for approval

October 27 – Board of Governors' meeting

January 2021 – Implementation begins
September 2022 – Implementation complete

Student Q&As on the proposed Faculty name change

Did you consider ‘Faculty of Health Sciences’ as an option?

Yes, it was one of the options we considered closely. Ultimately, though, we think ‘Faculty of Health’ better encompasses the different types of degrees in our Faculty – that is, both Arts and Sciences. Also, because it is more broad, it should provide a bigger umbrella for more disciplines to fall under. We recognize that we may never find a name that encompasses all our research areas, but we think ‘Health’ comes closest.

How does Recreation and Leisure Studies (RLS) fit into “Health?”

Many, if not most, areas of this department should fit into the definition of health that alludes to wellness. Even tourism, sports and park recreation fit into the concept of health, whether it refers to the sustainability of our environment and how we relate to it, or the act of finding health and wellness in activities such as sport, leisure and social justice. As in the question above, it may not be the perfect name, but it is probably more inclusive of RLS than the current name.

Doesn’t “Health” sound like it is just referring to students in the School of Public Health and Health Systems?

It’s true that students in the School might say they study health when they are referring to public health or health studies, but we don’t think that means no one else can say they study in the Faculty of Health. We believe it would not be a hard transition to make, seeing as how students in Kinesiology and Recreation and Leisure Studies also study health from different perspectives.

What would the name change mean for my degree? How will it affect my chances for receiving funding, or marketability in the job market or academia?

The name change should not have any negative effect on your degree or marketability because it is not normally used when displaying or talking about your degree. When you graduate from this Faculty, you graduate with a BA, BSc, BPH, MA, MSc, MPH, MHI, MHE or PhD in your program, whatever that may be.

If you were studying at a different university, your program might be found in a totally different Faculty, so it really should not have any bearing on your marketability. What counts for more is what you studied and learned, where you studied, and how well you showcase your knowledge and attitude in interviews or applications.

Conversely, the Faculty name can make a difference in student and faculty recruitment, since a broad name can expand our applicant pool and reach candidates that may otherwise not consider applying.

Is my academic unit also considering changing its name?

The academic units often evaluate the suitability of their names, and a time such as this would no doubt be a catalyst for these types of discussions. However, at this time, no final decisions have been made in this regard.

**What if the Faculty name doesn't represent what I'm studying or the research that I do?
Will it hurt my chances of receiving funding?**

When you apply for funding, what matters is the strength of your application to the funding body, not the name of the Faculty. The Faculty name has more to do with brand, and in this respect, while it tries to represent all fields of study within it, it also has to weigh the importance of including them all versus having the name be easily recognizable, understandable and memorable.

What happens to AHSUM and AHSSIE and all the things we love about the AHS name?

We love those puns and our kangaroo as well, and we would love for that not to change. In the end, though, what happens to the undergraduate student association name is up to students. We think it is feasible to retain some sort of AHS acronym, either as a legacy piece, or as part of a new identity (e.g., Association of Health Students). We know that our students are clever and fun, and that they can steer the branding in a cool direction if they want to. The teal colour will still be there, and ideally, so will AHSSIE.

Is rebranding a good use of our funds right now?

Rebranding is a huge endeavour with many components, and often, significant costs are attached to it. In our case, our visual identity (colour, font, etc.) will not change because our marketing is coordinated with the rest of the University. Recruitment brochures are also coordinated centrally, and they would be done according to the normal cycle and should not incur extra costs. Items such as letterhead are available online and business cards, if they are used at all, can be used up in the year or two it takes to fully transition. What will entail a cost is new signage, but the University is finalizing a wayfinding process right now so it is possible we might be able to coordinate with that project. Websites and other online assets will require human resources, but not extra funds that could better be spent elsewhere. The Faculty strives to be financially responsible, and believes that the costs for a name change would not be onerous, especially since the transition will occur over time.

Is the name change part of the AHS Strategic Plan 2020-25?

Yes, it is one of the Objectives in the proposed plan, under the Internal and External Community Engagement Priority. However, because the name affects other areas of the University, it needs to be treated differently than the rest of the plan and must go through the University approval process, including Senate and the Board of Governors. The rest of the AHS Strategic Plan needs to be approved by the bodies within AHS, such as Faculty Council. That is why the name change is on a different timeline than the rest of the plan.

When would the name change take effect?

Assuming it goes through the approval process in the coming months and gets on the agenda for Board of Governors in November, then we could be ready to implement it by January 2021. However, it will take about a year for the name change to be fully integrated into the normal cycle of recruitment and registrar materials, and for us to turn over all our website and social media assets. The idea is that it would be fully in effect for Fall 2022.

How were students able to show their feedback?

We started consulting with student representatives in winter 2020, although we did have some less formal opportunities going back to last year. Of course, students have been sitting on the Strategic Plan Advisory Committee, and were also invited to send comments to members of the Advisory Committee or to the Senior Manager, Marketing and Communications (which some

students have done). Students were also interested in participating in a poll, so one was distributed to graduate students by the graduate student representatives, and another was distributed the first week of June to undergraduates.

Dean, Faculty of Applied Health Sciences

To: Board of Governors	Date of Report: 10/9/2020
From: Vice-President Administration & Finance	Board Meeting Date: 10/27/2020
Subject: Administration & Finance Report (Dennis Huber)	

1.0 PURPOSE

- For Approval
 For Discussion
 For Information
 Open Session
 Confidential Session

2.0 MOTION/DISCUSSION/INFORMATION

This report is for information only.

3.0 EXECUTIVE SUMMARY

This Administration & Finance report includes Finance and Facilities updates. It covers the period from June 3, 2020 to October 9, 2020.

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

Finance and Administration collaborates with stakeholders across the university and in particular the Vice President, Academic & Provost to support the Strategic Plan, Campus Master Plan, and the annual development of the operating budget.

5.0 UNIVERSITY RISK ASSESSMENT

Finance and Administration works with senior administration to develop strategies to mitigate potential institutional risks including but not limited to: Capital Availability, Liquidity, Interest Rate, Credit/Default, Financial Instruments, and Physical Infrastructure.

Future revenue uncertainty requires an on-going commitment to continuously review our operational priorities. Determining which areas/activities receive resources is increasingly becoming a critical success factor.

6.0 ANALYSIS/UPDATE

The University continues to maintain its strong financial position and adequate liquidity levels despite current revenue volatility.

The \$41m Student Life Centre/PAC project (85% complete) is scheduled for substantial completion in January 2021.

7.0 FINANCIAL IMPLICATIONS

There are no financial implications.

8.0 COMMUNICATIONS STRATEGY

None

9.0 INPUT FROM OTHER SOURCES

None

ATTACHMENTS

None



To: Board of Governors	Date of Report: 10/11/2020
From: Vice-President, Advancement	Board Meeting Date: 10/27/2020
Subject: Quarterly Advancement Update (Joanne Shoveller)	

1.0 PURPOSE

- For Approval For Discussion For Information
 Open Session Confidential Session

2.0 MOTION/DISCUSSION/APPROVAL

This report is for information only.

3.0 EXECUTIVE SUMMARY

This report provides a brief summary of Advancement activities and financial results as of October 1, 2020.

The Office of Advancement is establishing the early stages of a University-wide fundraising campaign. This includes strengthening an early **campaign case for support** in light of the impact of COVID-19, conducting extensive **outreach and relationship building** and developing exciting funding projects to address existing and emerging opportunities.

We are conducting a University-wide campaign readiness assessment and **determining needed infrastructure and resources** for a successful ambitious campaign, creating a robust pipeline of 7, 8 and 9-figure donors and expanding the high-net worth individual, corporate and foundation pool for private support.

In our ongoing efforts to engage our alumni and current donors, we continue to:

- strengthen our global alumni volunteer network,
- engage alumni in digital events, programs and communications,
- continue the alumni data collection project to enhance our database,
- Enhance the communications strategy, and
- continue targeted fundraising mini-campaigns for student and campus support.

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

Based on Advancement’s strategic priorities and the three main areas of focus, we have identified several strategic objectives for 2020-21.

Campaign case for support

- Solidify funding projects
 - In progress – Ongoing conversations with Faculties and campus partners; several funding priorities confirmed.
- Develop 4-5 “big ideas” for campaign aligning with University strategic plan
 - In progress – Waterloo as Engine of Economic Recovery big idea in active consultation with Deans and campus partners.

Fundraising and relationship building

- Engaging, cultivating and soliciting top prospective donors
 - Fall 2020 - President’s Top 30 prospective donors have solid strategies in play.
 - Fall 2020 - Share ‘big idea’ concept papers with 10+ prospective donors.
 - Winter 2021 – Launch parent fundraising program with parent volunteers as leads.
 - Winter/Spring 2021 - 20+ major gift solicitations for pan-university projects.
- Building pipeline
 - In progress - Continue to refine the pipeline, with a focus on non-alumni \$1M+ prospective donors. This pipeline currently has 100 individuals, foundations and corporations with the potential for cultivation, solicitation or gift close over the next three years.
 - In progress – New pipeline assessment to develop robust prospect protocols.
 - Ongoing - Match top prospective donors with projects.
 - Ongoing - Continue leadership and annual fund qualification activities.
- Recruiting and engaging volunteers
 - Ongoing - Refining opportunities for our 737 active alumni volunteers globally, ensuring relevant training and enhanced communication to maximize meaningful engagement.
 - Ongoing - Develop transparent volunteer identifications process for campaign.
 - Fall 2020 - Enhance process for managing volunteers at all levels.
- Enhancing alumni and community engagement
 - Ongoing - Continue alumni contact data collection project and benchmark alumni engagement metrics on annual basis.
 - Ongoing - Strengthen Global Alumni Volunteer Network (GAVN) and build global alumni engagement, capitalizing on virtual and hybrid models.
 - Ongoing - Enhance strategic communication efforts to inspire alumni and donor engagement through digital channels.

Infrastructure

- Conduct campaign readiness assessment
 - Fall 2020 - working with top global firm GG+A; report expected November 2020.
- Determine resources
 - Fall 2020/Winter 2021 - Hiring for select core fundraising positions in progress; full resources plan to be suggested by GG+A campaign readiness report.
 - Winter 2021 - Determine campaign budget.
- Professional excellence
 - In progress – Develop consistent agendas and reporting for meetings with campus partners.

- In progress – Collaborate on goal-setting and building momentum as part of shared philanthropic culture.

5.0 UNIVERSITY RISK ASSESSMENT

Advancement's efforts to increase donor base and scholarship/award support is recognized as mitigation for reputational risk and fundraising is identified as mitigation for financial risk. Alumni Relations activities are also recognized as mitigation for reputational risk.

6.0 ANALYSIS/UPDATE

In keeping with our peer institutions, the pandemic continues to have a significant impact on fundraising and alumni relations with the cancellation of in-person events and the elimination of in-person cultivation and solicitation of donors. Results for the <\$25k level are down 28% from last year at the same time as a result of the closure of the call centre and restrictions on donor cultivation and attention. Negotiations are underway at the 6, 7 and 8 figure gift level but the pandemic is causing delays in finalizing. Concentrated plans have been put in place for the fall to address these challenges.

7.0 FINANCIAL IMPLICATIONS

The focus for 2020/21 continues to be campaign preparation, as well as developing the cases for support and other collateral that will accompany each priority and project. In addition, pipeline development continues to be highly focused as we look for prospects who will align with the campaign and its projects.

2020 has brought many challenges that could threaten our FY2021 goal of \$50 million and ability to close on early campaign gifts. The COVID-19 pandemic and the disruption and economic impact of the pandemic have reduced our face-to-face, personalized meetings with donors in Canada and across borders and have necessitated rapid learning of multiple virtual fundraising platforms. We also are managing the effects of a presidential transition while maximizing relationships with the strengths and enthusiasm of our current President.

We project a Q2 2020 total of \$7.8 million of confirmed new gifts, pledges and in-process commitments, which is 60% of Q2 2019's \$13.1 million largely due to decisions delayed by the pandemic. University-wide we have outstanding solicitations that exceed \$55 million and, with the support of the Deans and the Faculty Advancement Directors, are lining up the President for many meetings before December 2020 to amplify 7, 8 and 9-figure requests and increase positive decisions.

8.0 COMMUNICATIONS STRATEGY

Advancement is working with University Relations on three key projects this term:

- Campaign and Keystone brand and design to align with revised Waterloo brand expression.

- Piloting a digital marketing fundraising campaign with external media company M/Six.
- Publish Waterloo Magazine in November 2020 on the theme of Working with Purpose.

9.0 INPUT FROM OTHER SOURCES

Advancement works collaboratively with campus partners on numerous initiatives. In the last quarter, we have worked with:

- Registrar's Office, Student Awards, Graduate Studies and Postdoctoral Affairs and Institutional Analysis and Planning - BIPOC student awards.
- Student Success Office, Waterloo Undergraduate Association, Graduate Students Association – student alumni bridge projects.
- Campus-wide Dub Hub committee – new CRM project.
- All faculties and University Relations – Convocation.
- All faculty Deans, Advancement directors and senior campus leader – campaign projects, prospect review and planning.

ATTACHMENTS

None

To: Board of Governors	Date of Report: 10/19/2020
From: Vice-President, Research and International	Board Meeting Date: 10/27/2020
Subject: Research and International Report (Charmaine Dean)	

1.0 PURPOSE

- For Approval
 For Discussion
 For Information
 Open Session
 Confidential Session

2.0 MOTION/DISCUSSION/INFORMATION

This report is for information only.

3.0 EXECUTIVE SUMMARY

The following Research and International report features an update on the following three key areas of operational and strategic importance:

- The return to on-campus research activities
- The Advancing Research for Global Impact Action Team recommendations
- The Post-COVID-19 Global Transformation Working Group discussions

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

Activities related to the research return to campus supports the goals and objectives in the Advancing Research for Global Impact theme in the Strategic Plan by ensuring a safe, efficient and timely return to on-campus laboratories for researchers and graduate students. It also supports some goals and objectives in the Strengthening Sustainable and Diverse Communities impact theme as it address the disproportionate impact on researchers from designated equity groups. Discussions by the Advancing Research for Global Impact Action Team and by the Global Transformation Working Group address several goals and objectives throughout that impact theme and also address the following three Signature Commitments: *Be a global powerhouse for commercializing research; Align our research strengths deliberately with important global challenges; and Lead globally and nationally at the interface of society, health and technology.*

5.0 UNIVERSITY RISK ASSESSMENT

The Research and International portfolio works to develop strategies to mitigate several institutional risks including but not limited to research and reputation. The activity described in this report specifically addresses the risk of *Security: The risk of damage, injury to, or loss of students, employees and/or institutional property, due to a failure of health, safety or physical security measures.* The measures taken with regard to the returning research to campus directly

mitigates this risk while ensuring reputational risk with regard to research remains low. In addition, discussions by the Advancing Research for Global Impact Action Team and the Global Transformation Working Group serve to mitigate risk for the institution's core mandate, specifically *Reputation: The risk of damage to the University's reputation*, as these activities and proposed initiatives ensure a strategic approach to advancing research and innovation at Waterloo in key areas.

6.0 ANALYSIS/UPDATE

Return to On-Campus Research:

After work over the past few months to continue a safe, phased approach to returning to on-campus research, most research labs on campus are now operational, with approved safety plans in place.

New processes for requesting approvals for research face-to-face with human participants was initiated August 20th for on-campus laboratory research and October 5th for off-campus research.

A Standard Operating Procedure (SOP) specific to COVID-19 compliance has been finalized. Compliance inspectors have been designated from all Faculties and training was completed. Inspection routines were initiated, as well as Safety Office audits.

Planning for a possible resurgence of COVID-19 has been initiated.

A Medical and Public Health Advisory Group was established, with Dr. Clark Baldwin (Medical Director, Campus Wellness) as Chair and reports through the VPRI to the Central Planning Group. Key activities have included review of Public Health Agency of Canada guidance for post-secondary institutions, the university's plans for International Students, campus monitoring and tracing, and protocols for responses to cases of COVID-19 on campus. The group also serves as a forum for regular updates on the campus testing centre activities and on public health advice and direction

The Research Equity team is completing an environmental scan of the impact of COVID-19 on research productivity, with a focus on disproportionate impact for members of designated equity groups and early-career researchers. The project identifies systemic barriers and best practice recommendations through a review of post-secondary institution action and relevant scholarly literature. This work will inform recommendations for immediate actions, coinciding with work to identify Waterloo-specific opportunities for supporting research continuity.

Support was deployed for graduate students who were working on contracts for industry partners, and whose work was delayed because of the pandemic.

Advancing Research for Global Impact Action Team Update:

The work over the last quarter has identified proposed initiatives aligned with the Signature Commitments in the Strategic plan. These are based on the strategic plan and initial considerations of the draft recommendations of three Taskforces focused on (i) Health Initiatives, (ii) Innovation, Entrepreneurship & Commercialization, (iii) Interdisciplinarity, as well as consultations with a number of relevant academic and academic support offices, committees and

groups. As the COVID-19 pandemic has emerged, the research goals and objectives of the plan were re-examined to determine prioritization. Key initiatives related to the three signature commitments: **Be a global powerhouse for commercializing research, Align our research strengths deliberately with important global challenges, and Lead globally and nationally at the interface of society, health and technology** are identified and under current discussions internally. These bring interdisciplinarity to a greater focus, not just for research, but also administratively, consider further enhancements of business initiatives for training related to entrepreneurship, work with Centres and Institutes to align their strategic portfolios with the university's strategic plan, and create opportunities for a strong focus on the health sector especially with regard community partnerships and the health innovation. They also identify metrics and related targets in the area of research and innovation.

Global Transformation Working Group Update - *Emerging Global Transformations Post-COVID-19: Perspectives on Research Opportunities*

The Global Transformation Working Group, an interdisciplinary representation of faculty members, researchers, and administrators, developed a report to identify strategic opportunities that COVID could create for the University of Waterloo's efforts to "reimagine" how Waterloo will deliver its strategic plan and goals in a post-COVID world. This report identifies probable opportunities and strategies that support the research and partnerships that must be at the forefront of this future, by way of challenging the status quo, keeping the scope broad and interdisciplinary, preserving commitments to diversity and equity, promoting strategies that aid in an economic stimulus, and developing resilient future growth strategies.

The report outlines emerging global transformations and trends that can identify potential initiatives and research opportunities in the post-COVID future that Waterloo's strengths can implement. These trends were categorized across three main themes:

- 1) *Further Digital Transformations* through: accelerating information technology; competitive quantum information science and technology; demand for enhanced privacy and security in digital infrastructure; turn to more digital healthcare; digitizing energy for a health environment; and automation of industry and rising inequity in work.
- 2) *Building Back Better: Environment, Sustainability and Fair Recovery* through: sustainability stimulus, decarbonization, and societal pressure for a fair recovery.
- 3) *Introverted Societies, Economies, and Policies* through: deglobalization and reshoring, polarization and nationalism, and the deregulation, private-public partnerships.

Each of these three themes present opportunities to strategize and plan for Waterloo's current and future research and partnerships. In keeping with Waterloo's differentiators of innovation, entrepreneurship, and industry partnerships, there are opportunities in building resilient digital and communication networks to ensure a unified "Digital Canada" framework, enhancing Waterloo's IT potential through fast, reliable and resilient infrastructure and advancing its software and services, and growing its quantum industry with various available funds. Other opportunities for Waterloo researchers include growing social entrepreneurship through partnerships with the government and creating new programs that nurture efforts towards public interest technology, launching a new paradigm where nanotechnology and society can converge and work together for the global good, exploring new innovations in long-term health care

technology (namely innovations in ageing and technology), and looking to Waterloo's Virtual Future Centre to help us rethink how we live and work in the future by developing new virtual experiences and technological innovations and advancements necessary to render these experiences successful. These are being considered over the next two quarters.

7.0 FINANCIAL IMPLICATIONS

Strategic redeployment of funds provided the ability to conduct all the activities described above.

8.0 COMMUNICATIONS STRATEGY

None

9.0 INPUT FROM OTHER SOURCES

None

ATTACHMENTS

None

To: Board of Governors	Date of Report: 10/9/2020
From: Vice-President, University Relations	Board Meeting Date: 10/27/2020
Subject: University Relations Report (Sandra Banks)	

1.0 PURPOSE

- For Approval
 For Discussion
 For Information
 Open Session
 Confidential Session

2.0 MOTION/DISCUSSION/INFORMATION

This report is for information only.

3.0 EXECUTIVE SUMMARY

Over the course of the June to September period, University Relations led all emergency and COVID-response communications, key negotiations and advocacy with three levels of government in support of employers, domestic and international students, as well as a sustainable grant and tuition framework.

We developed a new brand expression and campaign ready to launch in November. All events and engagement with stakeholders moved online in a variety of formats.

4.0 STRATEGIC ALIGNMENT / COMPLIANCE

The mission critical for University Relations is to enhance relationships, revenue and reputation for the University by building powerful connections with internal and external audiences in support of the University mission and strategic plan, expanding efforts to retain and recruit external partners and financial support, and by delivering new models of virtual engagement and influence.

5.0 UNIVERSITY RISK ASSESSMENT

University Relations works with senior administration to estimate and mitigate risk from government policy and funding and develop relationships and strategies to protect and enhance the University's reputation.

6.0 ANALYSIS/UPDATE

Government Relations

The priority focus areas included: updates and advocacy with key officials at all three levels of government on the shorter and longer-range impacts of the COVID-19 pandemic on our institution and the sector.

Provincially, the Minister of Colleges and Universities Ross Romana, held numerous consultations on issues ranging from financial sustainability, infrastructure, work-integrated learning, a new tuition framework, digital learning, international education and more. Waterloo participated in all consultations and looks forward to working with the province as they announce next steps. The province also announced the appointment the new Special IP Implementation Team, chaired by Jim Balsillie and we await, the next actions based on the Report's recommendations.

UWaterloo leaders highlighted growing institutional financial pressures, including inflation, and the need for additional revenue including grant funding and tuition, as well as increased student financial aid.

Minister Romano visited campus in the summer where he met with President Hamdullahpur and toured a number of research labs focused on autonomous vehicle research, multi-scale additive manufacturing, as well as learned more about Waterloo's efforts to manufacture PPE during the first wave of COVID-19 in the spring.

Federally, key priorities included supporting university leaders in accessing emergency funds for employers and students, determining procedures for international student returns, as well as supporting Office of Research with a safe restart to university research. A priority listing of infrastructure projects has been prepared in the event of future infrastructure or stimulus funding.

Regionally, the University continued to maintain regular updates with Mayors and the Regional Chair on pandemic recovery and return strategies. We also met with the Chamber of Commerce and Waterloo Economic Development on expanding co-op employment and economic development opportunities.

The priority initiative during the period with all levels of government was a proposed expansion to the Health Sciences Campus at 280 Joseph St. in downtown Kitchener. The \$35 million project will transform an existing 90,000 square foot warehouse owned by the University into a modern regional ecosystem for health innovation. The building is located next to the University's School of Pharmacy and McMaster's satellite medical school. Velocity will occupy an expanded 45,000 square feet, with shared lab space and capacity to support start-ups and scaling companies.

University Communications

Central Communications developed **modified emergency communications protocols** to bring together communicators from across the University to coordinate and deliver a comprehensive and timely series of updates and supports for our ongoing COVID-19 response. University Relations team members are embedded in key groups to ensure we can guide and coordinate

timely communication materials and supports to the Central Planning Group, Return to Campus Working Group, Medical Advisory Group, Internal Think Tank and more.

We have developed and launched a series of materials to support a comprehensive approach to change and pandemic response, including:

- the launch of the [Welcome Back Waterloo](#) guide to prepare for the safe and [staged return to campus operations](#).
- A second series of safety message that pivoted from individual to community safety under the [Warriors Protect Warriors](#) banner.
- Steps to promote transparency for the campus community by [launching a dashboard](#) to report on positive cases of COVID-19 amongst students and employees who attended one of our campuses based on information provided from local public health unit.

Our **storytelling and media relations** have continued to support COVID-19 efforts as well as other priorities such as co-op and research. With more of our audience spending time on screens, we have continued to increase the overall volume of content we produce and seen an eight percent increase in unique pageviews on these stories. Of note, views of the Waterloo Magazine - the edition titled [“Coming home for Canada”](#) – are up 42 per cent over the same period last year. In media, our ongoing focus on promoting COVID Q&A with experts is yielding more frequent media coverage of our researchers. Media engagement has resulted in national and international exposure for a variety of researchers including:

- Applied Mathematics professor Chris Bauch was featured in multiple outlets internationally (Associated Press) for [COVID-19 modelling research](#) (including CBC’s The National) and on [who should get the first vaccine](#).
- Will Percival (Physics and Astronomy) who released [largest 3D map of the universe](#) ever created generated in excess of 300 media hits internationally including CNN
- Andrew Trant’s research (School of Environment, Resources and Sustainability) on [ecosystem change in the Canadian Rockies](#) was covered extensively across Canada including CTV National news

The University Relations team supported the launch of the President’s Anti-racism Taskforce and the subsequent work led by the executive lead Charmaine Dean. Supplemental expertise has been secured to guide engagement and communications with BIPOC and on anti-racism initiatives.

We completed in June the development of a new framework to guide **student-facing communications**. The framework creates consistency and connection across student-focused communications from multiple university offices. The framework will help organize and align messages to the most applicable channel from a student perspective. It also provides guidelines on language and tone for communication materials. Initial training on the framework was completed in June and further work is underway to address the deluge of emails, measure the long-term impacts of the framework and to continue increased coordination of all student communications.

Community Relations & Events

We continue to deliver timely, relevant, and engaging content through **Community online engagement and events**, including:

- a six-week *COVID-19 Ask the Experts* lunchtime series that kicked off in May. Topics included the impact of COVID-19 on retirement savings, long-term care, mental health, and social media.
- a two part *Beyond the Headlines* lecture series in partnership with CBC Kitchener Waterloo; moderated by radio host Craig Norris, the topics were *Globalization in our post-COVID world* (June 17) and *Responding to inequity in our post-COVID world* (July 15).
- a two-part online series in partnership with the Kitchener Public Library: *Will Our Kids be OK?* was held August 27; a second lecture discussing the American election will take place on October 27.

There were over 1,250 participants over the nine events to date. Through this community outreach, we have also added more than 500 new subscribers to our community distribution list, keeping local residents engaged and connected to the University.

Spring convocation was celebrated virtually from June 16-20. Close to 6,500 graduates received their diploma by courier, and on their graduation date, received a personalized graduation video via email. The video featured remarks from the President, Provost, and Chancellor. Personalized videos were viewed over 17,000 times by graduates and their families. Families were encouraged to celebrate with UWaterloo convocation lawn signs, and on social media. There were over 1.36M impressions on social media during convocation week.

Fall convocation will be celebrated on October 24 and 25, with 2,600 graduates. Based on feedback from the spring, we are incorporating several new elements this fall: a series of six faculty online receptions for graduates and their families; increased personal messaging and valedictorian messages.

Since the early phase of the pandemic, a cross-departmental **Community Resource Team** was mobilized to support a coordinated and timely response to requests for personal protective equipment (PPE), research partnerships, volunteers, and community donations. The Team ensured ongoing lines of communication and support for partners in the region, local hospitals and other organizations.

Marketing and Strategic Initiatives

Brand Expression -- Waterloo's "BEYOND" national brand campaign has been in market since Fall 2016 with the goal of increasing awareness, engagement and reputation primarily with business, government and academic leaders. Over a four-year period, the campaign was seen over 86 million times, driving almost one million views of Waterloo content on the University site. In a 2018 reputation survey, Waterloo was ranked as being the most visible institution in the market.

As the University continues to respond to changing priorities and market conditions due to

COVID-19, we have developed a new brand campaign creative to support operational priorities and key differentiators. An updated brand expression (which includes the slogan/tagline and related design system) has been designed to align with the University's fundraising campaign "You + Waterloo" and will be ready to launch in mid-late November across multiple channels and campus partners. Over the last few months, consultations have been held with internal and external audiences and the proposed approach is being tested by Ipsos Research with business leaders, co-op employers and alumni to gauge reaction to positioning, messaging and creative approach.

Wayfinding -- When finished in 2021, the wayfinding and signage system will feature maps and trail markers as well as directional, location and building signs, fully integrating pedestrian and vehicular wayfinding with public transit, cycling and parking. Implementation is underway across Waterloo's South and North campuses with East Campus completed in the new year. Of note to is the installation of a new gateway sign at the University Avenue entrance and a fully digital sign in front of Fed Hall.

In partnership with the events team, the **Waterloo Innovation Summit** showcased a two-part online speaker series over the summer. Forbes Chief Content Officer and editor, Randall Lane hosted both events, providing keynotes and moderating panels on talent (July 22) and entrepreneurship (August 19). Speakers included alumni and past Forbes 30 under 30 company founders Michael Litt of Vidyard and Martin Basiri of Apply Board. There were 301 attendees for the first event, and another 266 attendees of the second event.

Promotions on social media landed over 385,000 impressions; the highest performing platform being LinkedIn. Paid social media also yielded 432 clicks at a click through rate (CTR) of 1.14%, compared to the LinkedIn education sector average of 0.06%. Strong awareness of the Summit among our targeted audience of business, government and academic leaders generated higher than ever registrations although this was offset by a higher attrition rates rate common among online events.

The Summit will resume with another online event on November 30. The theme is Climate Capitalism: Our Business Case for the Planet, featuring author Tom Rand and Kathy Bardswick of the Canadian Institute for Climate Choices.

7.0 FINANCIAL IMPLICATIONS

These will be assessed as the recommended implementation stages are reviewed and finalized.

8.0 COMMUNICATIONS STRATEGY

None at this stage

9.0 INPUT FROM OTHER SOURCES

None

ATTACHMENTS

None

University of Waterloo
AUDIT & RISK COMMITTEE
Report to the Board of Governors
27 October 2020

This report is submitted following the committee's meetings of 15 July 2020 and 1 October 2020.

FOR APPROVAL

1. APPOINTMENT OF EXTERNAL AUDITORS

Motion: To reappoint Ernst & Young as the university's external auditors for the fiscal year ending 30 April 2021.

Background: This recommendation is made with the endorsement of the vice-president, administration & finance, and in conjunction with the approval of the audit plan and fees (item #3 of this report).

FOR INFORMATION

2. AUDITED FINANCIAL STATEMENTS

The audited financial statements for the fiscal year ended 30 April 2020 were reviewed by members at the 15 July 2020 meeting and approved by the Board Executive Committee on behalf of the Board of Governors on 23 July 2020.

3. EXTERNAL AUDIT PLAN AND FEES FOR 2021

The committee reviewed and approved the external audit plan and fees for the fiscal year ended 30 April 2021 as proposed by the external auditors (Ernst & Young), concluding that the approach and fees are appropriate.

4. UNIVERSITY RISK MANAGEMENT PROJECT UPDATE

The committee received a status report on the university risk management program, as well as the university's biannual risk assessment in accordance with Policy 11 – University Risk Management.

5. INTERNAL AUDIT

Work under the 2020-2021 internal audit plan was put on hold at the beginning of the pandemic. When it became clear that there would not be a full return to on-campus operations for some time, management began to work with the university's internal auditors to narrow down the internal audit plan to one project that is relevant to current circumstances and can be conducted remotely in a manner that is both efficient and effective. While this project is being deliberated, the university continues to monitor and report on enterprise risk under Policy 11 – University Risk Management, as well as existing mechanisms within the control environment.

/rmw

M. Gamble
Chair

University of Waterloo
Board of Governors
FINANCE & INVESTMENT COMMITTEE
Report to the Board of Governors
27 October 2020

This report is submitted following the committee’s meetings of 4 June 2020, 23 July 2020 and 1 October 2020. This report is recommended for inclusion in the regular agenda.

RECOMMENDATION

1. Amendments to Statement of Investment Guidelines for Endowment Fund

Motion: That the Board of Governors approve amendments to the Statement of Investment Guidelines for the University of Waterloo Endowment Fund, as described in Attachment #1 and effective 1 November 2020.

Rationale: Following an asset allocation study conducted earlier in 2020 on the endowment fund, the proposed amendments to the guidelines update the allowed ranges for asset classes to align with the study results, along with index names and percentages as appropriate.

The proposed adjustments to asset class ranges and benchmarks is summarized as follows (strikeout = deleted text; underline = added text):

Assets	Minimum %	Maximum %	Benchmark
Cash	0.0	10.0 <u>2.0</u>	FTSE TMX Canada 91-Day T-Bill <u>Index</u>
Fixed Income	30.0 <u>20.0</u>	70.0 40.0	FTSE TMX <u>Canada Universe Overall Bond Index</u>
Total Fixed Income	30.0 <u>20.0</u>	70.0 40.0	
Canadian Equity	<u>0.0</u>	<u>20.0</u>	S&P/TSX Composite
Global Equity	<u>50.0</u>	<u>70.0</u>	MSCI World (CAD)
Total Equity	30.0 <u>60.0</u>	70.0 <u>75.0</u>	
Infrastructure			UBS 50/50 (CAD)
Real Estate			FTSE EPRA/NAREIT Developed (CAD)
Total Alternatives	0.0	20.0	

/mg

James Schlegel
Chair

**Statement of Investment
Guidelines**

University of Waterloo
Endowment Fund

Effective November 1, ~~2018~~2020

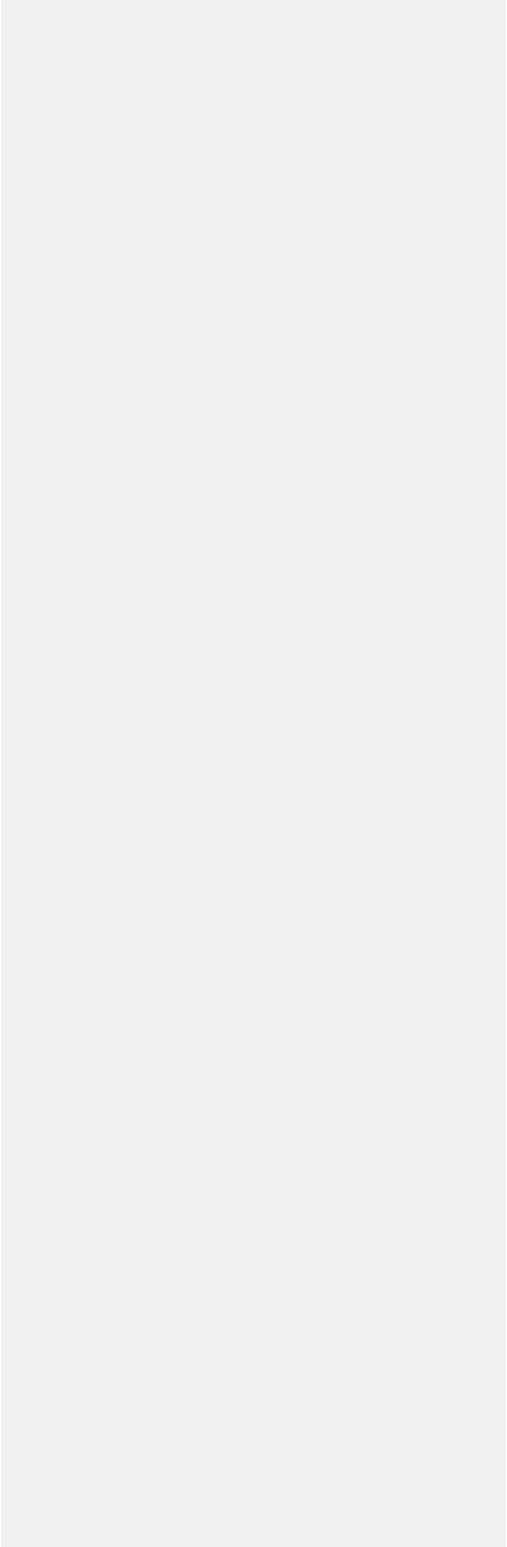
APPROVED on this ~~30th~~27th day of
October ~~2018~~2020

Replaces previous version, which was last revised, and effective on ~~March-October~~ 2018.

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Section 1— Overview

1.01 Purpose of Statement

This Statement of Investment Guidelines (the “Guidelines”) provides the framework for the investment of the assets for the University of Waterloo Endowment Fund (“Fund”).

These Guidelines are based on the “prudent person approach” to ensure the prudent investment and administration of the assets of the Fund.

These Guidelines also seek to establish ongoing communication between UW and others engaged in the administration of the Fund.

1.02 Standard of Care

These Guidelines are based on the “prudent person approach” to ensure the prudent investment and administration of the assets of the Fund. UW shall exercise the care, diligence and skill in the administration and investment of the Fund that a person of ordinary prudence would exercise. Such persons must further use all knowledge and skill that they possess or ought to possess.

1.03 Objective of the Fund

The objective of the Fund is to provide an annual revenue stream in perpetuity to fund specific activities of UW and to preserve its purchasing power.

1.04 Administration

UW is the legal owner of the Fund and is therefore responsible for all matters relating to the administration, interpretation and application of the Fund.

1.05 Background of the Fund

To provide investment income within acceptable risk tolerances, it is necessary to strive for sufficient/appropriate real investment returns on the Fund assets over medium- and long-term periods. The investment philosophy, policies and procedures adopted in this document will assist in the achievement of this goal in a prudent and effective manner.

These Guidelines have been developed taking into account factors such as:

- a) The nature of the Fund's liabilities;
- b) Historical and expected capital market returns; and
- c) The benefits of investment diversification.

Section 2 — Asset Mix and Diversification Policy

2.01 Risk/Return Considerations

Investment objectives for the Fund have been established (target 3% - 5% real rate of return) with regard to the:

- a) Rate of return sufficient to meet the annual expendable obligations;
- b) Rate of return sufficient to maintain the purchasing power of the endowed capital;
- c) The risk tolerance which is acceptable to UW; and
- d) Special factors, if any, which UW considers significant.

2.02 Investment and Risk Philosophy

UW recognizes that, based on historical data, the asset classes most likely to produce the greatest return over time are also likely to exhibit the most volatility. Conversely, the asset classes likely to be the least volatile are likely to produce the lowest returns over time. Therefore, the investment philosophies and strategies must take into account both return and risk objectives.

a) Investment Philosophy

The investment management structure employs a mix of active and passive management styles. Active management has been adopted for portions of the assets as it provides the opportunity to outperform common market indices over the long-term, while controlling active risk levels. Passive management has been adopted for portions of the assets as it minimizes the risk of underperformance relative to a benchmark index and is generally less expensive than active management. For information on how environmental, social and governance factors are considered in selecting investment managers, refer to Section 3.05.

Active equity fund managers are to apply the long-term value approach by investing in companies at prices below their underlying long-term values to protect capital from loss and earn income over time. The fund managers will attempt to identify financially sound companies with good potential profitability, which are selling at a discount to their intrinsic value. Appropriate measures of low prices may consist of low price-earnings, high dividend yields, and significant discounts to book value and low price to free cash flow. Downside protection is obtained by seeking a margin of safety in terms of sound financial position and a low price in relation to intrinsic value. Appropriate measures of financial integrity include debt/equity ratios, financial leverage, asset turnover, profit margin, return on equity, and interest coverage. It is anticipated that purchases will be made when economic and issue-specific conditions are less than ideal and sentiment is uncertain or negative. Conversely, it is expected that gains will be realized when issue-specific factors are positive and sentiment is buoyant. Assets of the Fund are administered and managed on a combined basis through specialist portfolios. Fund managers will be expected to generate a rate of return in the first quartile or better over a market cycle.

b) Risk Philosophy

In order to achieve its long-term investment goals, the Fund must invest in assets that have uncertain returns. However, UW attempts to reduce the overall level of risk by diversifying the asset classes and further diversifying within each individual asset class.

2.03 Portfolio Return Expectations

The annualized rate of return of the Fund must exceed the annualized rate of increase in the CPI by 300 – 500 basis points net of the associated investment management fees over rolling ten-year period.

2.04 Expected Volatility

The volatility of the assets of the Fund is directly related to its asset mix. Since the fund managers do not have authority to make any type of leveraged investment on behalf of the Fund, the volatility of the assets of the Fund should be similar to the volatility of the Benchmark Portfolio set out in section 4.02 (Performance Measurement).

2.05 Asset Mix

At all times, the market value of the individual asset classes will be within the minimum and maximum aggregate investment limits as listed.

Assets	Minimum %	Maximum %	Benchmark
Cash	0.0	402.0	FTSE TMX Canada 91-Day T-Bill Index
Fixed Income	3020.0	7040.0	FTSE TMX Canada Universe Overall Bond Index
Total Fixed Income	2030.0	4070.0	
Canadian Equity	0.0	20.0	S&P/TSX Composite Index
Global Equity	50.0	70.0	MSCI World-ACWI (CAD)
Total Equity	3060.0	7075.0	
Infrastructure			UBS 50/50 (CAD)
Real Estate			FTSE EPRA/NAREIT Developed (CAD)
Total Alternatives	0.0	20.0	

For the purpose of the total asset mix described above, the fund managers' asset class pooled funds are deemed to be 100% invested, even though these funds may contain a portion held in cash and cash equivalent instruments.

The asset mix may deviate from the above mix, within the limits prescribed in these Guidelines. The monitoring of the asset mix and rebalancing guidelines are set out in Section 5.02 (Monitoring

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Of Asset Mix). In order to ensure that the assets operate within the minimum and maximum ranges, UW shall review the asset mix on a quarterly basis. Rebalancing will be conducted as required.

2.06 Management Structure

A diversified management structure has been adopted for the Fund consisting of several managers. This structure has been adopted, as it is believed that the different investment mandates will result in increased diversification, while reducing the 'manager risk' effect for the Fund.

Section 3 — Permitted and Prohibited Investments

3.01 General Guidelines

The investments of the Fund must comply with the requirements and restrictions imposed by the applicable legislation.

3.02 Permitted Investments

In general, and subject to the restrictions in this section (Section 3), the investment manager may invest in any of the following asset classes and in any of the investment instruments listed.

a) Cash and Short Term Investments

Cash on hand, demand deposits, treasury bills, short-term notes and bankers' acceptances, commercial paper, term deposits and guaranteed investment certificates having a term of less than or equal to one year.

b) Fixed Income

Bonds, debentures, or other debt instruments of corporations, Canadian Governments, Government agencies, or guaranteed by Governments, supranationals, federal real return bonds, mortgage-backed securities, mortgages, asset-backed securities, non-convertible preferred shares, term deposits, guaranteed investment certificates, insurance contracts, private placements and bonds where capital, interest or both are linked to increases in the cost-of-living (i.e. real return bonds).

c) Equities

Common shares, preferred shares, American Depository Receipts, Foreign Depository Receipts, rights, warrants, installment receipts, index units, income trust units (including real estate investment trusts) and securities convertible into common shares.

d) Derivatives

The pooled funds in which the Fund invests may invest directly in derivatives to create synthetic exposures, or for hedging purposes, if their objectives and strategies permit, and if the exposure to derivatives is subject to limits based on the intended use and strategies for derivatives and the risks associated with them. Derivatives may also be used to hedge currency. Derivatives may not be used for speculative trading or to create a portfolio with leverage. Investment funds that invest in derivatives must comply with all applicable statutory provisions and regulations, including the Prudent Person Rule, must be invested,

and managed in accordance with regulatory derivatives best practices.

e) Pooled Funds

Investments in open-ended or closed-ended pooled funds provided that the assets of such funds are permissible investments under these Guidelines. While these Guidelines are intended to guide the management of the assets, it is recognized that, where pooled funds are held, there may be instances where there is a conflict between these Guidelines and the investment policy of a pooled fund. In that case, the pooled fund policy shall dominate, subject to the compliance reporting procedures outlined in Section 4.03. However, the investment manager is expected to advise UW in the event of any material discrepancies between the above guidelines and the pooled fund's own investment guidelines. In addition, the investment manager will ensure that UW has received a copy of the most recent version of the pooled fund policy and of any amendments made to the pooled fund policy.

3.03 Minimum Quality Requirements

a) Quality Standards

Within the investment restrictions for individual portfolios, all portfolios should hold a prudently diversified exposure to the intended market.

- i. The minimum quality standard for individual bonds and debentures is 'BBB' or equivalent as rated by at least two Recognized Bond Rating Agencies, at the time of purchase. Where an investment in the portfolio is downgraded below a 'BBB' rating, the following steps will be taken:
 - The investment manager will notify UW of the downgrade by telephone at the earliest possible opportunity;
 - Within ten business days of the downgrade, the investment manager will advise UW in writing of the course of action taken or to be taken by the investment manager, and its rationale; and
 - Immediately upon downgrade, the investment manager will place the asset on a Watch List subject to monthly review by the investment manager with UW until such time as the security matures, is sold or until it is upgraded to a level consistent with the purchase quality standards as expressed in the guidelines mentioned above.
- ii. In cases in which the Recognized Bond Agencies do not agree on the credit rating, the bond will be classified according to the methodology used by FTSE [TMXCanada](#), which states:
 - If two agencies rate a security, use the lower of the two ratings;
 - If three agencies rate a security, use the most common; or
 - If all three disagree, use the middle rating.

b) Rating Agencies

For the purposes of these Guidelines, the following rating agencies shall be considered to be 'Recognized Bond Rating Agencies:'

- i. Dominion Bond Rating Agency;
- ii. Standard and Poor's; and
- iii. Moody's Investors Services.

3.04 Maximum Quantity Restrictions

a) Total Fund Level

UW shall not, directly or indirectly, lend or invest moneys of the Fund to or in any one person, any associated persons or any affiliated corporations if:

- 10% or more of the total market value of the Fund's assets has already been lent or invested in total to, or in, the person, the associated persons or the affiliated corporations; or
- 10% or more of the total market value of the Fund's assets would be lent or invested in total to, or in, the person, the associated persons or the affiliated corporations as a result of the loan or investment.
- * Holdings issued by the Government of Canada and its agencies are exempt from the above mentioned 10% limitation.

UW shall not directly or indirectly, invest the moneys of the Fund in the securities of a corporation to which are attached more than 30% of the votes that may be cast to elect the directors of the corporation.

b) Fixed Income

- i. Maximum 15% of the market value of the Canadian fixed income securities shall be invested in BBB bonds or debentures
- ii. Maximum 10% of the actively managed fixed income portfolio may be invested in debt denominated in US currency, including debt issued by the US Government, its agencies and instrumentalities. No other foreign currency debt will be purchased.

c) Equities

No one equity holding shall represent more than 10% of the total market value of the manager's portfolio.

3.05 Environmental, Social and Governance Factors

Consistent with its obligation to act in the best interest of the Fund, UW chooses investments and investment managers that it believes will deliver superior financial performance over the long term. In this regard, UW considers environmental, social and governance ("ESG") factors in selecting investment managers with whom it invests the assets of the Fund as well as assets that are directly held. UW recognizes, however, that managers may consider ESG factors in different ways in assessing whether a given investment will have the best economic outcome. In order to protect and enhance the value of the Fund's investments, when selecting investment managers or direct investments, UW considers criteria that include: the manager's business and staff; historical performance; and the consideration of ESG factors in the investment process. As well, the proactive disclosure and analysis of ESG factors by the investment manager will be considered in the monitoring of, and ongoing decisions pertaining to, the retention of investment managers. For the purposes of this section, ESG factors refer to the environmental, social and governance factors relevant to an investment that may have a financial impact on that investment. It is accepted that the understanding of and the impact from ESG factors may change over time.

3.06 Prior Notice Required

The fund managers shall not make investments in asset categories other than those explicitly permitted in these Guidelines, unless UW first consents in writing. Each fund manager's portfolio shall

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also comply with all requirements and constraints in any supplementary document provided by UW.

3.07 Securities and Cash Lending

The fund managers and custodian may participate in securities lending programs for the purpose of generating revenue.

Such loans must be secured by cash and/or readily marketable government bonds, treasury bills and/or letters of credit, discount notes, banker's acceptances of Canadian chartered banks or high quality, liquid equities. The amount of collateral taken for securities lending should reflect OSFI standards and best practices in local markets. This market value relationship must be calculated at least daily.

Fund managers and custodians participating in securities lending will make available the terms and conditions of any securities lending program(s) with UW.

3.08 Short Selling

Short selling and/or pair trading are not permitted.

3.09 Liquidity

Investments should be liquid enough so that they can be sold in a reasonable period of time. The investments should be valued at least monthly and selected to ensure sufficient liquidity to meet transaction needs.

3.10 Borrowing

The Fund shall not borrow money, except to cover short-term contingency and the borrowing is for a period that does not exceed ninety days, subject to the written permission of UW.

Section 4 — Monitoring and Control

4.01 Delegation of Responsibility

The Board of Governors of the University of Waterloo (the "Board") has established a Finance and Investment Committee ("F&I Committee") to assist in the determination of UW's overall investment philosophy, policies, objectives and strategies. UW assists in carrying out the responsibilities listed below.

- a) The F&I Committee will:
 - i. review this document annually;
 - ii. review Fund performance on at least a semi-annual basis;
 - iii. review Fund Manager performance on at least a semi-annual basis;
 - iv. make recommendations on the selection of Fund Managers;
 - v. make recommendations on the purchase of specific investments; and
 - vi. provide cash flow information to the Fund Managers, if necessary;
 - vii. be responsible for the delegation of any responsibilities not specifically mentioned;
 - viii. review and approve the purchase of specific investments.

b) The Fund Managers will:

- i. forward to UW quarterly reviews of investment performance, expectations of future returns on various asset classes and proposed investment strategies for the following 12 to 24 months;
- ii. upon direction of the F&I Committee, invest in passive asset classes such as indexed bond funds, indexed equity funds, real-return bonds, etc.;
- iii. manage asset mix and select securities within each asset class, subject to applicable legislation and the philosophy and other constraints set out in this document;
- iv. forward to UW quarterly reports describing their ESG analysis and approach;
- v. advise UW immediately of any changes in its senior investment personnel and/or significant changes in the size or mix of assets managed;
- vi. comply with all relevant laws concerning the investment of the Fund; and
- vii. complete and deliver a compliance report to the F&I Committee each quarter. The compliance report will indicate whether or not the Fund Manager was in compliance with these Guidelines during the quarter. In the event that the Fund Manager is not in compliance with this Statement, the Fund Manager is required to advise UW immediately, detail the nature of the non-compliance and recommend the appropriate course of action to remedy the situation.
- viii. comply, at all times and in all respects, with the Code of Ethics and Standards of Professional Conduct as promulgated by the CFA Institute.
- ix. manage the assets with the care, diligence and skill that an investment manager of ordinary prudence would use in dealing with the Fund's assets.
- x. use all relevant knowledge and skill that they possess or ought to possess as a prudent investment manager.

c) The Custodian/Trustee will:

- i. fulfill the regular duties required by law of a Custodian/Trustee and perform the specific duties required of the Custodian/Trustee pursuant to agreements entered into from time to time with UW; and
- ii. provide UW with monthly portfolio printouts of all assets of the Fund and transactions during the period.

4.02 Performance Measurement

For purposes of evaluating the performance of the Fund and the fund managers, all rates of returns are measured over rolling four-year periods. Return objectives are net of fees and include realized and unrealized capital gains or losses plus income from all sources.

(a) **Total Fund**

Investment weightings and results for the Fund are to be tested regularly against a long-term Benchmark Portfolio comprising:

Benchmark	%
FTSE TMX -Canada 91-Day T-Bill <u>Index</u>	0.0
FTSE TMX -Canada Universe Bond <u>Index</u>	4030.0
S&P/TSX Composite <u>Index</u>	3010.0
MSCI World - <u>ACWI</u> (CAD)	3060.0
UBS 50/50 (CAD)	0.0
FTSE EPRA/NAREIT Developed (CAD)	0.0

(b) Investment Manager Mandates

Fund managers are subject to the following objectives on a gross of fees basis and over rolling four-year periods:

Investment Manager and Mandate	Objective
Indexed Universe Bonds	Tracking error within +/- 6 basis points of index return
Canadian Fixed Income	Index + 50 basis points
Active Short Term Corporate Bond	Index + 50 basis points
Canadian Equity	Index + 100 basis points
Global Equity	Index + 200 basis points

(c) Qualitative Monitoring

In addition to performance criteria, the following qualitative factors will also be monitored and evaluated:

- i. Stability of the investment firm (personnel, assets under administration, operational capabilities, etc.);
- ii. Investment objective and portfolio composition;
- iii. Changes in the investment philosophy used in the investment fund;
- iv. Consistency of style or approach;
- v. Adherence to investment policy statement; and
- vi. ESG analysis and reporting.

4.03 Compliance Reporting by Investment Manager

The investment manager is required to complete and deliver a compliance report to UW each quarter. The compliance report will indicate whether or not the investment manager was in compliance with these Guidelines, including its ESG requirements, during the quarter.

In the event that an investment manager is not in compliance with these Guidelines, the investment manager is required to advise UW immediately, detail the nature of the non-compliance and recommend an appropriate course of action to remedy the situation.

The Fund invests in pooled funds with separate investment policies. Should a conflict arise between those investment policies and these Guidelines, the investment manager's pooled fund

policy shall dominate. However, the investment manager is required to advise UW immediately, detail the nature of the conflict and recommend an appropriate course of action to remedy the situation.

Section 5 — Administration

5.01 Conflicts of Interest

a) Responsibilities

This standard, which is consistent with UW Policy 69 (Conflict of Interest) applies to UW and the members of UW, as well as to all agents employed by them, in the execution of their responsibilities (the "Affected Persons").

An "agent" is defined to mean a company, organization, association or individual, as well as its employees who are retained by UW to provide specific services with respect to the investment, administration and management of the assets of the Fund.

b) Disclosure

In the execution of their duties, the Affected Persons shall disclose any material conflict of interest relating to them, or any material ownership of securities, which could impair their ability to render unbiased advice, or to make unbiased decisions, affecting the administration of the Fund assets.

Further, it is expected that no Affected Person shall make any personal financial gain (direct or indirect) because of his or her fiduciary position. However, normal and reasonable fees and expenses incurred in the discharge of their responsibilities are permitted if documented and approved by UW

No Affected Person shall accept a gift or gratuity or other personal favour, other than one of nominal value, from a person with whom they deal with in the course of performance of his or her duties and responsibilities for the Fund.

It is incumbent on any Affected Person who believes that he or she may have a conflict of interest, or who is aware of any conflict of interest, to disclose full details of the situation to the attention of UW immediately. UW, in turn, will decide what action is appropriate under the circumstances but, at a minimum, will table the matter at the next regular meeting of the F&I Committee.

No Affected Person who has or is required to make a disclosure as contemplated in this Policy shall participate in any discussion, decision or vote relating to any proposed investment or transaction in respect of which he or she has made or is required to make disclosure.

5.02 Monitoring of Asset Mix

In order to ensure that the assets of the Fund operate within the minimum and maximum ranges, as prescribed in the Guidelines in Section 2.05 (Asset Mix), UW shall review the asset mix at least quarterly. Rebalancing will be conducted as required.

5.03 Selecting Fund Managers

In the event that a new investment manager must be selected or additional investment manager(s) added, UW will undertake an investment manager search. The criteria used for selecting an Investment Manager will be consistent with the investment and risk philosophy set out in Sections 2.02 (Investment and Risk Philosophy) and 3.05 (Environmental, Social and Governance Factors).

5.04 Monitoring Manager Performance

At least quarterly, the F&I Committee and UW will monitor and review:

- a) Each investment manager's staff turnover, consistency of style and record of service;
- b) Each investment manager's current economic outlook and investment strategies (including ESG approach);
- c) Each investment manager's compliance with these Guidelines; and
- d) Investment performance of the assets of the Fund in relation to the rate of return expectations outlined in these Guidelines.

5.05 Dismissal of an Investment Manager

Reasons for considering the termination of the services of an investment manager include, but are not limited to, the following factors:

- a) Performance results which are below the stated performance benchmarks;
- b) Changes in the overall structure of the Fund's assets such that the investment manager's services are no longer required;
- c) Change in personnel, firm structure or investment philosophy which might adversely affect the potential return and/or risk level of the portfolio; and/or
- d) Failure to adhere to these Guidelines.

The failure to achieve the goals stated in Section 4.02 (Performance Measurement) over a period of four consecutive years will require a reassessment of such goals and/or the appointment of an alternative investment manager.

5.06 Voting Rights

The voting rights acquired through the investments held by the Fund are delegated to the fund managers of the securities. Fund managers are expected to exercise all voting rights related to investments held by the Fund in the interests of UW.

5.07 Valuation of Investments Not Regularly Traded

The following principles will apply for the valuation of investments that are not traded regularly:

- a) **Equities**
Average of bid-and-ask prices from two major investment dealers, at least once every month.
- b) **Fixed Income**
Same as for equities.

Section 6 — General Provisions

6.01 Related Party Transactions

UW, on behalf of the Fund, may not enter into a transaction with a related party unless:

- a) The transaction is made for the operation or administration of the Fund under terms and conditions that are not less favourable to the Fund than market terms and conditions and such transaction does not involve the making of loans to, or investments in, the related party; or
- b) The combined value of all transactions with the same related party is nominal or the transaction(s) is immaterial to the Fund.

For the purposes of this section, only the market value of the combined assets of the Fund shall be used as the criteria to determine whether a transaction is nominal or immaterial to the Fund. Transactions less than 0.5% of the combined market value of the assets of the Fund are considered nominal.

In addition, the prohibition to entering into transactions with a related party does not apply to investments:

- a) In securities issued or fully guaranteed by the Government of Canada, the government of a province, or an agency of either one of them;
- b) In a fund composed of mortgage-backed securities that are fully guaranteed by the Government of Canada, the government of a province, or an agency of either one of them;
- c) In a fund that replicates the composition of a widely recognized index of a broad class of securities traded at a marketplace; and
- d) That involve the purchase of a contract or agreement in respect of which the return is based on performance of a widely recognized index of a broad class of securities traded at a marketplace.

A “related party” in respect of the Fund means:

- a) A person who is the administrator of the Fund including any officer, director or employee of the administrator. It also includes the Managers and their employees, a union representing employees of the employer, a spouse or child of the persons named previously, or a corporation that is directly or indirectly controlled by the persons named previously, among others.
- b) An officer, director or employee of one of the administrators of the Fund;
- c) A person responsible for holding or investing the assets of the Fund, or any officer, director or employee thereof;
- d) An affiliate of UW;

6.02 Policy Review

The F&I Committee shall review and either confirm or amend these Guidelines at least annually. UW will also provide any amended copy of these Guidelines to the investment manager.

Appendix A — Investment Manager Compliance Letter

To be completed by fund managers each quarter.

UNIVERSITY OF WATERLOO
_____, ~~201202~~

This is to certify that I/we have adhered to the guidelines contained in the ~~November-October 2020~~18 version of the "Investment Guidelines" for the University of Waterloo Endowment Fund approved by the Board of Governors of the University of Waterloo.

Signed _____

On behalf of _____

Date _____

University of Waterloo
Board of Governors
PENSION & BENEFITS COMMITTEE
Report to the Board of Governors
27 October 2020

This report is submitted following the committee's meetings of 12 June 2020, 9 September 2020 and 16 October 2020, for inclusion in the regular agenda.

RECOMMENDATION

1. Amendment to Article 12 of the Registered Pension Plan

Motion: That the Board of Governors approve the following amendments to section 12.01 of the University of Waterloo Pension Plan (strikeout = deleted text; underline = new text):

12.01 Transfers to Pension Fund

~~An Employee~~ A Member who was ~~a participant~~ an active member in a Canadian registered pension plan of a previous employer within six (6) months prior to the ~~Employee~~ Member entering the service of the University, may transfer to the Pension Fund monies payable from such registered pension plan provided the following conditions are met:

- (a) the Pension Committee consents to the transfer;
- (b) the ~~Employee~~ Member submits an application for such transfer to the Pension Committee within the later of:
 - (i) six (6) months of entering the service of the University; and
 - (ii) six (6) months of being first permitted to transfer the monies pursuant to the terms of the previous employer's registered pension plan and any applicable legislation;
- (c) the ~~Employee~~ Member has provided:
 - (i) certification from the previous employer that after the transfer to the Pension Fund, no benefits will remain payable to the ~~Employee~~ Member from the previous employer's registered pension plan; and
 - (ii) a summary from the previous employer of the ~~Employee's~~ Member's pensionable service and pension adjustment history under that employer's registered pension plan;
- (d) if, in the six (6) months prior to entering the service of the University, the ~~Employee~~ Member was a participant in more than one Canadian registered pension plan, the ~~Employee~~ Member may only apply to transfer to the Pension Fund monies payable from the Canadian registered pension plan in which the ~~Employee~~ Member most recently participated prior to entering the service of the University; and
- (e) the transfer is not from an Affiliated Organization as such a transfer must be made pursuant to Sections 20.03 and 20.04 of the Plan.

Rationale: At the committee's 21 February 2020 meeting, a motion was approved to reaffirm the existing practices pertaining to transfer-in provisions and requested Aon to prepare clarifying language to Article 12. This new language ensures that only individuals who have joined the UW Plan can transfer credited service, while also clarifying that the individual must have been actively participating in the previous Canadian pension plan just prior to the proposed transfer into the Waterloo plan. While pension legislation may be more permissive, the revised wording is consistent with the intent of the plan and existing practices as well as with the practices of ~~other~~ the university defined benefits plans.

2. Amendment to Statement of Investment Policies and Procedures

Motion: That the Board of Governors approve the following amendments to section 2.05 of the Statement of Investment Policies and Procedures (strikeout = deleted text; underline = new text):

2.05 Asset Mix

The following benchmark portfolio is used by the Consulting Actuary to calculate the return assumptions for the Plan. At all times, the market value of the individual asset classes will be within the minimum and maximum aggregate investment limits as listed.

Assets	Minimum %	Maximum %	Benchmark Portfolio %	Benchmark
Cash	0.0	15.0 <u>5.0</u>	2.0	FTSE TMX Canada 91-Day T-Bill
Fixed Income	30.0 <u>20.0</u>	70.0 <u>45.0</u>	33.0	FTSE TMX Universe Bond
Total Fixed Income	30.0 <u>20.0</u>	70.0 <u>50.0</u>	35.0	
Canadian Equity	<u>5.0</u>	<u>15.0</u>	15.0	S&P/TSX Composite
Global Equity	<u>30.0</u>	<u>55.0</u>	40.0	MSCI World (CAD)
Total Equity	30.0 <u>35.0</u>	70.0	55.0	
Infrastructure	<u>0.0</u>	<u>10.0</u>	5.0	UBS 50/50 (CAD)
Real Estate	<u>0.0</u>	<u>10.0</u>	5.0	FTSE EPRA/NAREIT Developed (CAD)
Total Alternatives	0.0	20.0	10.0	

...

Rationale: The committee received this recommendation from the Finance & Investment Committee at its June 2020 meeting. The narrower permitted asset ranges will confirm the strategic asset allocation for the registered pension plan and aid rebalancing while still providing sufficient flexibility to accommodate normal market movements.

/mg

Peter Barr
Chair