UNIVERSITY OF TORONTO

OFFICE OF THE GOVERNING COUNCIL

FOR ENDORSEMENT AND FORWARDING | **PUBLIC** | **CLOSED SESSION**

TO: Executive Committee

SPONSOR: Cheryl Regehr, Vice-President & Provost
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PRESENTER: Same as above
CONTACT INFO:

DATE: June 7, 2021 for June 14, 2021

AGENDA ITEM: 3(a)

ITEM IDENTIFICATION:

Proposal to Establish an Extra-Departmental Unit A: Faculty of Arts & Science, School of the Environment).

JURISDICTIONAL INFORMATION:

The Planning and Budget Committee is responsible for making recommendations to the Academic Board on plans and proposals to establish, disestablish or significantly restructure academic units, here defined as "faculties, schools, colleges, departments, centres and institutes with teaching, or teaching and research functions, undergraduate degree programs, and graduate degree programs," regardless of the source of funds. *(P&B Terms of Reference, Section 4.4.1)*

Pursuant to Section 5.1 of the *Academic Board Terms of Reference*, the Board has responsibility for the "establishment, termination or restructuring of academic units."

Proposals for Extra Departmental Units are considered and recommended for approval, pursuant to the *Policy on Interdisciplinary Education and Research Planning (2007)* and the associated *University of Toronto Guidelines for Extra Departmental Units.*

GOVERNANCE PATH:

1. Planning and Budget Committee [for recommendation] (May 6, 2021)
2. Academic Board [for recommendation] (May 27, 2021)
3. **Executive Committee [for endorsement and forwarding] (June 14, 2021)**
4. Governing Council [for approval] (June 24, 2021)

PREVIOUS ACTION TAKEN:

The proposal to establish the School of the Environment, an EDU:B, as an EDU:A, effective July 1, 2021, was approved by the Faculty of Arts & Science's Faculty Council on April 21, 2021.

HIGHLIGHTS:

This is a proposal to establish the School of the Environment (School) as an Extra Departmental Unit Type A (EDU:A), effective July 1, 2021.

The School was established as an EDU:B in 2012, replacing the former Centre for Environment. Since its establishment, the School has acted as a hub for problem-driven research and training on environment and sustainability, and has partnered with disciplinary units across the Faculty and other U of T divisions.

The proposed change will give the School a clearer role as an international leader in interdisciplinary environmental research and teaching, and responds to the growing urgency of global environmental crises and the demand from our students that universities play a leadership role in responding to these crises. This change was supported by the 2017-18 University of Toronto Quality Assurance Process (UTQAP) cyclical review and is referred to in the 2020-2025 FAS Academic Plan, *Leveraging our Strengths*.

The School jointly offers seven undergraduate programs with other FAS units and supports two Collaborative Specializations. Its new Master of Environment and Sustainability will open to admissions in 2021-22. Enrolments in the School's core undergraduate programs have doubled over the past decade, while enrolments in the School's graduate collaborative specializations have increased more than threefold. The School does not anticipate any immediate changes to curriculum or program offerings specifically tied to the transition to EDU:A status.

As an EDU:A, the School will adopt a new research strategy, grounded in a set of research clusters, in which a transdisciplinary approach would develop stronger synergies between the many units with which it partners. The three proposed clusters are: Interpreting Global Environmental Change; Planetary Health; The Technology-Society Nexus. The clusters build on the work of the School's current faculty and represent areas of research where U of T might show international leadership, leveraging the School's ability to bring together diverse perspectives on environment and sustainability. New appointments held fully or primarily within the School will anchor the research clusters to build a strong transdisciplinary basis for its research programs.

The transition to EDU:A status would enhance the research and teaching mission of the School by allowing it to make future strategic majority-appointed faculty hires and to serve as a stronger hub of interdisciplinary activity. The School currently has 18 faculty appointments, 14 of which are cross-appointed tenure stream faculty members who hold majority appointments in eight units in FAS and two other Divisions (University of Toronto Mississauga [UTM]; John H. Daniels Faculty of Architecture, Landscape, and Design). No current appointments will be

altered as part of the EDU status change. Over the next five years the School plans to request 5.0 full-time equivalent new faculty with sole- or majority-appointments in the School.

The existing governance structures in the academic unit will continue. The Director will assume responsibility for academic administrative procedures required for majority-appointed faculty. As a small unit, the School relies on participation of faculty from cognate units in tenure and promotion committees, and will continue to do so for the foreseeable future. The Director will continue to be assisted by an Undergraduate Associate Director and a Graduate Associate Director. The EDU:A will create a standing Advisory Board to support information sharing, collaboration building and mutually informed strategic planning among the participating units. Membership will include Chairs of cognate units and representation from UTM, the University of Toronto Scarborough (UTSC) and the John H. Daniels Faculty of Architecture, Landscape, and Design.

Consultation outside FAS has occurred with the Tri-Campus Deans Group, the UTM and UTSC Dean's Offices and relevant units within those Divisions. Feedback received through this consultation was incorporated into the present proposal. The proposal was also shared with the Temerty Faculty of Medicine; the Faculty of Applied Science & Engineering; the Dalla Lana School of Public Health; the John H. Daniels Faculty of Architecture, Landscape, and Design; the Ontario Institute for Studies in Education (OISE); the Faculty of Law; and the Rotman School of Management. The President's Advisory Committee on the Environment, Climate Change and Sustainability also reviewed the proposal. All bodies were supportive of the change.

FINANCIAL IMPLICATIONS:

In accordance with the University's budget model, any financial obligations of the status change will be met at the divisional level.

RECOMMENDATION:

Be It Resolved:

THAT the following recommendation be endorsed and forwarded to the Governing Council

THAT the proposal to establish the School of the Environment, an (EDU: B), as an Extra-Departmental Unit Type A, as described in the proposal dated April 12, 2021, be approved effective July 1, 2021.

DOCUMENTATION PROVIDED:

Proposal to Transition the School of the Environment from an EDU:B to an EDU:A (April 12, 2021)

Proposal to Transition the School of the Environment from an EDU:B to an EDU:A
April 12, 2021

1a Statement of Purpose

We seek to transition the School of the Environment ("the School") from an EDU:B to an EDU:A of the same name within the Faculty of Arts & Science ("FAS"), effective July 1, 2021. The proposed change will give the School a clearer role as an international leader in interdisciplinary environmental research and teaching, and responds to the growing urgency of global environmental crises and the demand from our students that Universities play a leadership role in responding to these crises. The change will also coincide with the launch of the School's first stand-alone graduate program, the Master of Environment and Sustainability. Existing faculty with budgetary appointments at the School (a total of 9.44 FTE) will be unaffected by this change.

The School's faculty form a broad pool of expertise on current environmental issues, spanning the physical sciences, social sciences, and humanities. These faculty share a commitment to integrating knowledge from multiple disciplines, mobilizing that knowledge to address global environmental crises, and advising government, industry, and civil society on the coming transition to a sustainable society. The School's faculty:

- Understand global environmental change as the interaction of geophysical and ecological systems with social, political, and economic systems that shape human behaviour, and the broader ethical, cultural, and religious worldviews by which we interpret our responsibilities to future generations;
- Apply a systems lens to analyze these interactions and understand the feedback loops that maintain equilibrium in, or amplify disruptions to, both human and natural systems;
- Provide a critical analysis of society's deployment of new technologies (e.g., for energy, agriculture, construction, transport, and communications) by measuring and assessing their environmental and social impacts;
- Investigate the impact of environmental crises on human health and wellbeing, and the relationship between a healthy environment and a healthy human population.

The change in status will enable the School to define and build a set of **research clusters** to strengthen the interconnections between existing research work in many units across U of T. Each research cluster will engage a mix of faculty: some based in cognate disciplinary units, some who are cross-appointed to the School, and some based wholly at the School. The latter faculty members will provide **interdisciplinary expertise** — the ability to combine knowledge from multiple disciplines to provide a systemic understanding of environmental issues — to mobilize that knowledge to inform environmental decision-making, and to integrate interdisciplinary perspectives into the curriculum. This added nucleus of interdisciplinary expertise within the School would benefit research programs and students within the School, the Faculty of Arts & Science, and the University.

The School will also provide coordinated **communication of environment-related research and education** across U of T, so that faculty can more readily collaborate across disciplines, and students can more easily find programs that suit their needs and interests. The School will maintain its existing undergraduate programs and graduate collaborative specializations, all of which depend on strong partnerships with cognate units within FAS. As an EDU:A, the School will play a stronger role in helping FAS students select interdisciplinary programming to obtain integrated understanding of environmental issues. The change in status will also support the School's desire to keep its programming current by better matching future faculty hires to its teaching needs.

To ensure collaborative coordination with cognate units across U of T, the School will adopt two key features: one, a clearly stated **mandate** developed in consultation with cognate units, and two, a standing **Advisory Board** to coordinate with the School's Director on administrative and academic decisions. Both of these features are described in detail below.

1b Background

The School of the Environment was established as an EDU:B in the Faculty of Arts & Science in July 2012, replacing the former Centre for Environment. The School's mission is to serve as an interdisciplinary hub for undergraduate and graduate education and scholarship on the environment and sustainability, creating new knowledge, training future leaders, engaging and forging partnerships with the wider community, and contributing to positive environmental and social change from the local to the global scale. To achieve this mission, the School partners with disciplinary units across the Faculty of Arts & Science and other Divisions. The School operates on a "hub-and-spoke" model, acting as a hub for problem-driven research and teaching, while the spokes are the School's relationships with disciplinary units.

The School's fourteen tenure-stream faculty all hold minority appointments at the School and are cross-appointed with nine different FAS units and two other Divisions, with the School holding up to 49% of an appointment. The School also has two part-time faculty members, and two teaching-stream faculty members, one a legacy position from before the School was established, the other a new cross-appointment with Trinity College.

The School offers undergraduate programs with strong enrolments in Environmental Science (73 students in Fall 2020) and Environmental Studies (338 students in 2020), along with a range of additional minor and specialist programs (854 students in total in 2020). The School is also a graduate unit, with 141 graduate faculty members spanning 13 Divisions across the University (see Appendix A). At the graduate level, it offers two very popular collaborative specializations: Environmental Studies, and Environment & Health (with a total of 268 students in 2020-21). In September 2021, the School is launching a thesis-based Master of Environment and Sustainability (MES).

When the School was established as an EDU:B, it was stipulated that the Faculty should revisit the EDU status of the School after 5-7 years to evaluate the fit between its mission and its EDU:B status. In the first few years, the EDU:B model helped the School to strengthen collaborations across FAS. As the School has grown, however, opportunities to thrive as an EDU:A have become evident. Enrolments in the School's core undergraduate programs have doubled over the past decade, while enrolments in the School's graduate collaborative specializations have more than trebled. In faculty hiring to date, the

School has sought to establish a broad base of expertise by partnering with units that have a realistic expectation of new faculty lines and are willing to balance a majority cross-disciplinary appointment against their own need for core disciplinary strength. This has resulted in many excellent hires, but EDU:A status will allow the School to cultivate more cohesion and predictability in its faculty complement planning year-to-year. In addition, the School can provide a more established structural home for faculty members' research programs (particularly for faculty members with majority- or full appointments to the School), allowing them to both seize and cultivate more opportunities for collaboration with cognate units and Divisions.

Transition to EDU:A status would also allow the School to efficiently and systematically enhance the breadth and capacity of the School's teaching resources. The School's FCE to FTE ratio is nearly double the FAS average, and more than half of its undergraduate teaching is done by sessional instructors. The opportunity for a new hire to add more than 0.49 FTE to the School's teaching capacity would translate into an enhanced student experience.

While the current EDU:B status has allowed the School to establish an innovative set of programs, it does not adequately reflect the independent scholarly identity of the School, nor the School's pursuit of research excellence in what is now a well-established and well-defined area of academic study. EDU:A status will position the School as a research leader on environment and sustainability, provide the autonomy needed to build new interdisciplinary research clusters, and allow the School to enhance its pedagogical offerings and student experience. It will also provide the flexibility to recruit a diverse mix of interdisciplinary scholars. The existing hub-and-spoke model will be retained — with cross-appointed faculty providing a vital link with disciplinary units — and enhanced with selected future faculty hires who will hold majority or 100% positions within the School, to provide a stronger hub for research and teaching.

2 Academic Rationale

Overview

Now, more than ever, it is crucial for U of T to have a strong, collaborative presence in environmental teaching and research. Global environmental crises have become pervasive and urgent and demand a bolder response from the academy. Take climate change, for example. Universities can provide the knowledge needed for governments, communities, and corporations to make informed decisions on mitigation and adaptation, but only if they link the scientific basis with the political, economic, and social contexts in which decisions must be made, and the broader cultural, ethical, and religious viewpoints by which we interpret our collective responsibility to future generations.

U of T already has tremendous expertise in many of these areas across all three campuses, and much of this work is inherently interdisciplinary. For example, assessment of the climate risks facing Canadian communities draws on diverse sources of expertise from multiple disciplines: how the Earth's carbon cycle and biodiversity have changed over time (Earth Sciences, Ecology, Biology); measurement of the changing atmosphere and computational modeling of the climate system (Physics); the spatial and demographic distribution of the impacts of climate change on food, energy production, and community health (Geography, Public Health); and an understanding of how climate change exacerbates systemic

injustices and disproportionately impacts disadvantaged groups (Indigenous Studies, Women & Gender Studies).

Similarly, research on the transition to a sustainable society draws on an understanding of the role of governments and NGOs and their policy choices for rapid decarbonization (Political Science, Public Policy); the synthesis of new materials for harvesting and storing renewable energy (Chemistry, Engineering); human-environment interactions and our physical and social adaptability to climate change (Anthropology); and how language and literature shape our cultural attitudes to social change and the transition to a sustainable society (the Humanities).

The School of the Environment is well placed to act as a focal point to draw the threads of this expertise together within the Faculty of Arts & Science, and to link it with research in other Divisions across the University. There is no need to duplicate existing expertise; rather, the School's role should be to amplify it, by building stronger collaborations across departmental boundaries, facilitating proposals for new interdisciplinary research funding, and offering guidance to students interested in finding appropriate experts to work with. To do this successfully requires a strengthening of the School's "hub," with a small number of new faculty lines primarily within the School, as well as the "spokes," via further cross-appointed faculty, co-sponsored events, and support for students navigating interdisciplinary spaces.

The transition to EDU:A status would enhance the research and teaching mission of the School by allowing it to make strategic majority-appointed faculty hires and to serve as a stronger hub of interdisciplinary activity. These elements are discussed in more detail below.

The importance of this transition was highlighted by the School's 2017-18 UTQAP cyclical review process; for instance, in their report, the reviewers noted,

> *The Self Study document (p. 77) makes an excellent case for shifting from an EDU:B to an EDU:A model. Some of [the] summary points include: [It] would create a new dynamic by strengthening collegiality, a shared sense of purpose and unity, reduce administrative complexity and increase access to indirect cost monies, enhance direct entry into graduate programs and strengthen the mandate for both inter-disciplinarity and trans-disciplinarity and allow for research chair appointments…*

And,

> *Clearly the 'hub and spoke' model contains its own tensions and territorial gulfs. There are a number of challenges confronting the evolution of the School and its ability to achieve its potential and leadership role in the institution-'to make a very good School even better'. The most important of these is the current status of the School as an EDU:B entity which restricts direct appointments. There are a number of legitimate questions surrounding a shift from B to A status such as the shift/drift away from integration. We find that there is more than sufficient evidence to make the case for a decision to extricate the School from the adage, 'paralysis by further analysis'.*

In the administrative response to the 2018 review report, the Dean of FAS committed to embarking on a "consultation process in which members of the school and cognate units will be involved in a discussion of structural changes that may be beneficial to the School, including the possibility of a transition from EDU-B to EDU-A status," and, subsequently, "implement[ing] structural changes to the School that are

deemed appropriate following consultation." The Faculty's commitment to empowering the School in pursuit of its mission is further highlighted in the 2020-2025 FAS Academic Plan, *Leveraging our Strengths*, which notes that,

> *…the School has the potential to serve as a more robust hub linking together pedagogy and research expertise related to sustainability from across the Sciences, Social Sciences, and Humanities. The School currently provides teaching through a set of cross-appointed faculty, but may better serve FAS with a stronger and more focused mandate to connect with units across the Faculty, as well as the Colleges, to coordinate and advance teaching and research on environment and sustainability.*

Transitioning the School to an EDU:A can also further the mission of the University more broadly (per the University's *Statement of Institutional Purpose*, 1992); greater flexibility in requesting faculty lines will allow the School to more efficiently "respond selectively to new fields of research as they emerge" in the study of the environment. Developing partnerships with a broader range of units across FAS will also promote the University's objective to encourage "scholarship in a wide range of disciplines in the humanities, social sciences, sciences."

2a Research

As an EDU:A, the School would adopt a new research strategy, grounded in a set of research clusters, in which a transdisciplinary approach would develop stronger synergies between the many units with which it partners. As an EDU:A, the School will develop each research cluster with a mix of cross-appointed and sole-appointed faculty. New cross-appointments would allow the School to connect with a broader range of units, including Humanities units – with which the School currently has no shared appointments – and with EDU:Bs which can themselves only hold minority appointments. New appointments held fully or primarily within the School will anchor the research clusters, to build a strong transdisciplinary basis for its research programs. This approach is not intended to replace or replicate any existing work within the School or its cognate units, but to enhance it by providing expertise in interdisciplinary research — scholars who are trained to bring together data sources and research methodologies from multiple disciplines, spanning the social sciences, sciences, and humanities.

The proposed clusters were identified through consultations with the School's faculty, including a faculty and staff retreat in May 2019. The clusters build on the work of the School's current faculty, and represent areas of research where U of T might show international leadership, leveraging the School's ability to bring together diverse perspectives on environment and sustainability. The three proposed clusters are:

- **Interpreting Global Environmental Change.** This cluster will bring together an understanding of the physical science basis for environmental change, the social science of how society is affected by such change and can to respond to it, and from the humanities, an understanding of the ethical and cultural basis for such a response. A key feature of this cluster is the observation that society does not act directly on scientific evidence, but on how that evidence is mediated and interpreted through politics, language, art, culture, and religion. This cluster would connect with and enhance work being done in many units across U of T.
- **Planetary Health.** Building on the School's existing programming in Environment and Health at both the undergraduate and graduate level, this research cluster will promote an

interdisciplinary and holistic understanding of the relationships between a healthy environment, healthy ecosystems, and a healthy human population. This cluster will connect with ongoing research at U of T in public health, social geography, toxicology, food, medicine, and characterizations of the natural and built environment, to provide a comprehensive view on a set of complex issues ranging from environmental contaminants to the health impacts of global climate change.

- **The Technology-Society Nexus.** Many of our current environmental challenges are the result of rapid development and deployment of new technologies, which create large-scale infrastructures (e.g., for transportation and buildings), generate biogeochemical changes (e.g., pesticides and plastics), and accelerate the exchange of information via digital technologies (e.g., the internet, mobile computing, and social media). This cluster will build on existing research at the School in areas such as green buildings, e-waste, and digital media, and the methods of ecological modeling, lifecycle assessment, and stock-and-flow analysis, to study how our changing relationship with technology can be both the source of environmental problems and a source of innovation for sustainability solutions.

The School will seek to hire at least one tenure-stream faculty member to anchor each cluster. Faculty members who may fill such positions will be stellar scholars who do not identify strongly with any one discipline in existing FAS units, and thus do not fit the existing cross-appointment model, but who seek an interdisciplinary environment and the opportunity to build collaborations across disciplinary boundaries. For example, an outstanding environmental data scientist may be passed over by quantitative departments if that individual does not fit with existing unit-level complement plans and departmental subgroups, but may serve a key function anchoring data science scholarship within the Faculty through an appointment to the School.

Such candidates represent a new generation emerging from interdisciplinary institutes in environment and sustainability around the world — researchers who adopt a problem-centred rather than a discipline-centred approach to their work, and who weave together knowledge and methods from many different disciplines to tackle those problems. At a time when leveraging strengths across the humanities, social sciences, and sciences is a key priority for the Faculty, it is more important than ever to ensure that the School is empowered to hire such candidates who fit its mandate.

In addition, as an EDU:A, the School will have more flexibility in future cross-appointed searches, offering more choice to prospective candidates over which unit would hold the majority appointment, and permitting a wider range of percentage splits. Finally, the School would also gain the ability to partner on hires with EDU:Bs, such as the Centre for Indigenous Studies.

This strategy will strengthen the School's partnerships with disciplinary units. The School's excellence and pursuit of its mission hinge on having active links to the disciplinary strengths of partner units. Under the proposed strategy, the School will maintain its existing cross-appointments (with no shifts in faculty lines or workload), and continue to seek further cross-appointments (both budgetary and status-only) with cognate units across FAS. By supplementing these with a small number of strategic hires within the School, the School will strengthen its ability to connect and translate disciplinary knowledge, to amplify existing research and teaching in different units across the University, and help articulate how it contributes to understanding and addressing environmental issues.

In addition, because the strategy offers a stronger thematic focus to the work of the School, it will be able to more clearly communicate to students how the School's programs are distinct from and complementary to the programs offered by cognate units. The School aims to provide coordinated marketing of FAS programs related to the environment, so that students can more easily find combinations of majors and minors to suit their needs and interests. This goal is clearly articulated in the School's mandate as an EDU:A.

The advantages of the proposed approach are numerous. A well-defined set of research clusters will enable the School to present a more coherent account of its work, and provide clearer guidance to students interested in taking programs at the School and in our cognate units. It will also allow the School to increase visibility of U of T's strengths on environmental issues, both nationally and internationally, and amplify U of T's engagement in public debate about key environmental crises facing society. Finally, the approach will help attract a new type of world-leading scholar to come to U of T.

2b Education

Undergraduate

As an EDU:B, the School is the administrative home for two popular core programs, Environmental Studies (an Hons. BA program) and Environmental Sciences (an Hons. BSc program). Program enrolments are high, resulting in a student-to-faculty ratio for courses that is well above the FAS average. The School also collaborates with other disciplines to offer the following programs:

- Specialist and Major in Environment & Health (joint with the Human Biology Program)
- Specialist in Environment & Toxicology (joint with the Department of Pharmacology & Toxicology)
- Specialist in Environmental Chemistry[1] (joint with the Department of Chemistry)
- Specialist in Environmental Geosciences (joint with the Department of Earth Sciences)
- Major and Minor in Environmental Ethics (joint with the Department of Philosophy)
- Minor in Environment & Energy (joint with the Department of Geography & Planning)
- Minor in Environment & Behaviour (joint with the Department of Psychology).

These programs combine the School's interdisciplinary core with a deliberately focused set of discipline-specific courses. Students in FAS can also choose from seven directed environmental Minors offered by other departments (Environmental Anthropology, Environmental Biology, Environmental Chemistry, Environmental Economics, Environmental Geography, Geographic Information Systems, and Physical & Environmental Geography).

The School does not anticipate any immediate changes to curriculum or program offerings specifically tied to the transition to EDU:A status. The School aims to review its programs and curriculum over the next 2 years with an eye to streamlining and refreshing its in-house offerings, and is launching a certificate program in sustainability (approved for a September 2021 start) that will be open to all students in FAS, in collaboration with the President's Advisory Committee on Environment, Climate Change and Sustainability. While none of these plans are tied directly to the change in EDU status, they

[1] This program has been approved for closure effective June 30, 2024.

fit well with the academic rationale for the change, and will help ensure our students are equipped with the knowledge and skills needed to face an uncertain and rapidly changing future.

Future faculty hires associated with the research clusters discussed above will allow the School to better support the transdisciplinary focus of its undergraduate programs. A net increase in teaching capacity, including the introduction of additional teaching-stream faculty appointed fully to the School, will enhance the student experience, while the introduction of fully appointed faculty will increase research and experiential learning opportunities for undergraduates in the School's programs.

Graduate

Under this proposal, the School will continue as a graduate unit, maintaining its existing graduate faculty membership (see Appendix A). The School does not envision any changes to graduate programming tied specifically to a transition to EDU:A status. Indirectly, EDU:A status would allow the School to build greater in-house supervisory capacity and availability of truly interdisciplinary, problem-based research projects for graduate students.

The School's new Master of Environment and Sustainability (MES) is launching in September 2021 and is the School's first standalone graduate degree program. The MES was developed after extensive consultation across all three campuses, and has led to a consensus that the Masters programs on the three campuses in the areas of Environment and Sustainability can be marketed together as a set of distinct graduate pathways (See Appendix B).

In addition to the new MES, the School continues to offer two very popular collaborative specializations in Environmental Studies (in which students from 27 graduate degree programs participate) and Environment & Health (in which students from 9 graduate degree programs participate); in 2020-21, a total of 268 students are participating in these collaborative specializations. The strength and breadth of these specializations is the result of a broad collaboration with faculty across all three campuses as show by the list of 141 graduate faculty member from 13 different Divisions listed in Appendix A.

2c Mandate

In transitioning to an EDU:A, the School will adopt a mandate confirming its status as an institutional centre of excellence, bringing together and supporting environment-related teaching and research throughout FAS, and more broadly across the University.

- The School will **develop and lead partnership research initiatives** and multidisciplinary grant applications, building a coherent set of research clusters that cross disciplinary boundaries. This will enhance funding opportunities in environment-related research for faculty throughout FAS and across the University. These new research activities will be facilitated by our extensive network of graduate faculty members at the School, which includes members from 13 Divisions across the University.
- The School will **promote environmentally relevant academic programming** throughout FAS and support wayfinding for students. Currently, undergraduates find it particularly difficult to make sense of the variety of environment-related offerings throughout the Faculty; the School will work to communicate offerings and raise the profile of environment-related programming, potentially enhancing the popularity of programs in other units and promoting options such as double majors.

- The School will serve a significant **communication** function within FAS, providing a centralized source of information regarding environment-related research throughout the Faculty, bringing together scholarly activities across cognate units.
- Where appropriate, the School will **partner with units in other Faculties and Divisions** to help strengthen and promote interdisciplinary approaches to teaching and research on the environment and sustainability across all three campuses. Such partnerships may take many forms, including co-sponsored events, graduate faculty appointments, new cross-appointed faculty, cross-listed courses, and/or membership in the School's graduate specializations. The School's advisory committee will assist in identifying and prioritizing potential new partnerships.
- The School will have a faculty complement composed **primarily of cross-appointed faculty**. In building a small complement of faculty fully appointed to the School, the School will have the capacity to provide a stronger hub for collaborative research; this in turn will strengthen the environment-related research and teaching activities of the Faculty more broadly.
- The School's success will be **evaluated** not simply through the accomplishments of its individual faculty members and academic programs, but through its success in integrating and amplifying environment-related teaching and research throughout FAS and across the University.

3 Consultation

Consultations within the School: Initial consultations within the School took place during the 2017-18 cyclical review process; the transition to EDU-A status was discussed in the self-study and the response to the reviewer report. Additional consultations took place at the School's May 2019 faculty retreat and have continued at faculty and staff meetings throughout the 2019-20 academic year. The School has engaged in ongoing discussion with the Dean's office throughout the UTQAP cyclical review process, and more recently through a series of focused discussions with the Vice-Dean, Academic Planning.

Consultations have taken place with the student leadership of the Environmental Students' Union (ENSU), who have commented on earlier version of this proposal, and are enthusiastic about the vision it presents. Additional consultations with students took place through a series of student-led webinars and townhall meetings over the summer and fall of 2020.

Consultations within FAS: The proposed transition to EDU:A status has been the subject of extensive consultation within FAS. Throughout Fall 2019, the Vice-Dean, Academic Planning and Associate Dean, Teaching & Learning met with groups of Chairs from cognate units to discuss the possibility of a transition. Following up on these conversations, a working group was struck in February 2020. Chaired by the Vice-Dean, Academic Planning, and composed of members from cognate units in each of the three sectors (see Appendix C), the working group discussed the School's ability to achieve its vision as an EDU:B vs. EDU:A and advised on a draft proposal for a status change. The working group welcomed the idea of a research strategy based on interdisciplinary research clusters engaging faculty members from multiple units. It was also particularly enthusiastic about the potential for the School to play a stronger role in wayfinding for students interested in environment-related programs across FAS, and for the School to partner with other units to offer students experiential learning opportunities related to environment and sustainability. Following the working group's final meeting, members received a draft of this proposal on June 22; they were asked to circulate the draft to members of their respective units and gather feedback. Most of the

feedback was very supportive of the transition, although some respondents voiced concerns similar to those discussed by the Working Group, such as the potential for an EDU:A structure to undergo "mission creep" into discipline-specific environmental research or spread existing resources or interest more thinly. These concerns informed the design of the School's mandate and Administrative Structure (including Advisory Board), to ensure the School's role as a promoter of, and partner in, environmentally relevant research and teaching across the University. Subsequently, working group members received a November 4 draft of the proposal for information and feedback; no further feedback was received at that time.

On November 13, the proposal was discussed at a meeting of the Faculty's group of Chairs, Principals, and Academic Directors (CPAD). The Vice-Dean, Academic Planning invited feedback by email, and no feedback was received.

Consultations beyond FAS: A draft proposal was circulated in advance of, and discussed at, the November 12, 2020, meeting of the Tri-Campus Deans Group. Feedback in these discussions was supportive of the transition to EDU:A status. In addition, the draft was circulated to administrative leaders in the UTM and UTSC Dean's Offices for feedback and dissemination to pertinent units, which included the UTM Department of Biology, the UTM Programs in Environment (PIE) group, the UTM Centre for Urban Environments, the UTSC Department of Biological Sciences, the UTSC Centre for Critical Development Studies, and the UTSC Department of Health & Society. The proposal was also circulated to the Department of Physical & Environmental Sciences and the Department of Human Geography at UTSC, and the Department of Geography, Geomatics & Environment, and the MSc in Sustainability Management program at UTM. Feedback received was generally supportive of the proposal; two units with questions requested meetings with the Director of the School and the Vice-Dean, Academic Planning, for more information. Issues raised at these meetings included a lack of clarity on how faculty in other departments could engage with the School, and a concern over whether the School's mission would include coordination of undergraduate environment programs across campuses. As a result of these discussions, the proposal was revised in January 2021 to clarify that the School's role in undergraduate programming would be limited to within FAS only, and the section on faculty participation was expanded. These units subsequently expressed support for the revised proposal.

A November 4 draft was shared with the Chair of the President's Advisory Committee on the Environment, Climate Change & Sustainability, who circulated the proposal to Committee members. Feedback received was very supportive of the proposed transition to EDU:A status.

Finally, the November 4 draft was sent on November 16, 2020, for information or feedback, to the Deans of 7 cognate Divisions: the Temerty Faculty of Medicine; the Faculty of Applied Science & Engineering; the Dalla Lana School of Public Health; the John H. Daniels Faculty of Architecture, Landscape & Design (DFALD); the Ontario Institute for Studies in Education (OISE); the Faculty of Law; and the Rotman School of Management. A subsequent meeting was held with the FAS Vice-Dean, Academic Planning, the Director of the School, and the Dean of the Daniels Faculty of Architecture, Landscape and Design, where the majority of the discussion focused on the challenges of inter-divisional collaboration, and whether the School would be well-positioned to navigate this space. The Dean of DFALD expressed a desire to maintain a strong relationship between DFALD and the School, so the School agreed to add representation from DFALD on the Advisory Board. The January 2021 revision of the proposal was then sent to the Dean of DFALD, who had no further feedback.

4 Faculty Participation

The School currently has 14 cross-appointed tenure-stream faculty members (6.61 FTE) who hold majority appointments from eight units in FAS and two other Divisions (UTM, DFALD). **None of these current appointments will be altered in any way as part of the EDU status change**. In addition, the School has one teaching-stream faculty member (100% at the School; 1.0 FTE), who is a legacy hire from before the School was established, and a newly hired teaching-stream CLTA joint with Trinity College (.33 FTE), as part of the Lawson Sustainability Initiative. Finally, the school also has two 75% part-time faculty members (together, 1.5 FTE), bringing the total to 9.44 FTE (See Table 1).

Most of these faculty were hired since the School was established in 2012, and the majority are at the assistant professor level. The high number of recent appointments reflects an increased commitment to the field, and a growing pool of excellent scholars internationally. These younger faculty represent a new generation of scholars who actively seek interdisciplinary collaboration and are committed to the vision of the School as a centre of excellence for interdisciplinary research and teaching. All of these faculty regularly meet at the School to present their research-in-progress to one another and are keen to build stronger collaborative research ties. With these recent hires, the school has reached a critical point in its evolution, where a strengthening of the "hub" is needed to allow these faculty to fulfill these goals.

Table 1. Current faculty appointments to the School of the Environment. These are continuing tenure-stream appointments except where noted otherwise. All of these appointments will remain as-is after transition to EDU:A status.

Name	Position	% Appt to the School	Unit of Majority Appointment	Research Areas
Diamond, Miriam	Professor	49%	FAS: Earth Sciences	Chemical Contaminants: sources, health impacts, & policy implications
Prudham, Scott	Professor	33%	FAS: Geography and Planning	Environmental Justice; Political Ecology; Capitalism-Nature Nexus
Robinson, John	Professor	49%	FAS: Munk School of Global Affairs and Public Policy	Urban Design; Community Engagement in Sustainability; Behavioural Change
Abizaid, Christian	Associate Professor	49%	FAS: Geography and Planning	Environmental Development; Indigenous populations; Social Networks
Franklin, Meredith	Associate Professor (joining July 2021)	49%	FAS: Statistical Sciences	Spatial Statistics; Remote Sensing; Pollutants and Human Health
Green, Jessica	Associate Professor	49%	FAS: Political Science	Climate Policy; Carbon Markets; Global Governance; NGOs

Ing, Karen	Associate Professor – Teaching Stream	100%	FAS: School of the Environment	Environmental Education; Ecosystem Services and Well-Being
Scharper, Stephen	Associate Professor	40%	UTM: Anthropology	Environmental Ethics; Worldviews and Ecology; Liberation Theology
Wiseman, Clare	Associate Professor (part-time)	75%	FAS: School of the Environment	Metal Behaviour; Metal in Urban Environments; Metal Bioaccessibility
Jakubiec, J. Alstan	Assistant Professor	49%	John H. Daniels Faculty of Architecture, Landscape, and Design	Sustainable Design; Low Energy Design; Visual and Thermal Comfort
Leos Barajas, Vianey	Assistant Professor	49%	FAS: Statistical Sciences	Bayesian Statistics; Statistical Ecology; Environmental Data Modelling
Neville, Kate	Assistant Professor	49%	FAS: Political Science	Resource Governance; Land use and Energy; Fracking and Biofuels
Peng, Hui	Assistant Professor	49%	FAS: Chemistry	Environmental Chemicals; Toxic Mechanisms
Rollinson, Njal	Assistant Professor	49%	FAS: Ecology and Evolutionary Biology	Animal Life Cycles; Environmental variation; Reptiles and Amphibians;
Soden, Robert	Assistant Professor	49%	FAS: Computer Science	Crisis Informatics; Digital Technology for Disaster and Climate Risk Management
Spiegelaar, Nicole	Assistant Professor – CLTA Teaching Stream	33%	FAS: Trinity College	Environmental Psychology; Indigenous Environmental Relations; Food Systems
Wunch, Debra	Assistant Professor	49%	FAS: Physics	Earth's Carbon Cycle; Atmospheric Greenhouse Gases
Yoreh, Tanhum	Assistant Professor (part-time)	75%	FAS: School of the Environment	Religion and Environmentalism, Wastefulness; Consumption; Simplicity

The academic mission described in this proposal does not depend on future faculty hires. However, with strong and steady enrolments in the School's core programs, a relatively high FCE to FTE ratio, and a heavy reliance on sessional instructors, the School has a significant need to grow its faculty complement. We present here a roadmap for this growth (see Table 2), while acknowledging the challenging context

of the current economic uncertainty. All requests for faculty lines will be subject to FAS approval on an annual basis (see Section 7, *Budget: Faculty Lines*).

In keeping with its function as a hub for environment-related research and teaching, the School expects the majority of its faculty lines will be cross-appointments with other units, and has started discussions with other units about opportunities for joint appointments in future years. Although no current cross-appointments will change as a result of the School's new status, the School will in the future be able to request cross-appointments in which the majority of the appointment (typically 51%) will be held in the School.

As a small unit, the School relies on participation of faculty from cognate units in tenure and promotion committees, and will continue to do so for the foreseeable future. As an EDU:B, the School already runs its own annual PTR process for all its faculty, including its part-time faculty and CLTAs. For joint-appointed faculty, the School coordinates with partner units to provide consolidated feedback to each faculty member. Similarly, the School participates in tenure and promotion reviews for its joint-appointed faculty, to ensure the interdisciplinary nature of their work is appropriately accounted for, and the School currently handles promotion reviews for its part-time and teaching-stream faculty. As an EDU:A, the School will continue to coordinate with partner units for all of these processes for joint-appointed faculty, and will chair the tenure and promotion reviews for all sole- and majority-appointed faculty.

Over the next few years, the School will seek to recruit 4 sole-appointed faculty. These new hires will help fill out a group that will anchor the School's research clusters, fill in key teaching needs, and provide a more substantial hub for environment-related activities across FAS. New faculty lines in A&S are allocated each year through the Faculty Appointments Committee (FAC), which includes representation from across the Sciences, Social Sciences, and Humanities, as well as from the Colleges. The Dean recognizes the importance of faculty lines to the future success of the school as an EDU-A, and is supportive of the School's submission of requests for 100% appointments in line with this proposal, through the FAC process.

Table 2. Proposed faculty searches for the School of the Environment as an EDU:A over the next five years.

Tenure- or Teaching-Stream	% Appointment to the School	Timeframe	Research Area(s) and Research Cluster
Tenure Stream	100%	Within 1 year	Climate Communications (cluster 1)
Tenure Stream	100%	Within 1 year	Planetary Health (cluster 2)
Tenure Stream	100%	Within 2 years	The Sustainability Transition (cluster 3)
Teaching Stream	100%	Within 4 years	Sustainability Education (cluster 3)

Faculty from other units can participate in the work of the School in a number of ways. The School welcomes requests from faculty members interested in a graduate appointment at the School, which provides a stepping stone to further engagement, including interdisciplinary co-supervision of graduate students, development and cross-listing of interdisciplinary graduate courses, and participation in networking events aimed at bringing faculty and graduate students together to create new collaborations. The School regularly accepts requests to co-sponsor and advertise such events. Under the new mandate described above, the School will assist in coordinating new interdisciplinary research proposals related to the environment, identifying funding sources, and communicating research results.

An additional form of faculty participation will lie in the activities of an Academic Advisory Board, described further in Section 5, *Administrative Structure*.

5 Administrative Structure

The School's **Director** would be appointed according to the Policy on Appointment of Academic Administrators. The School's current Director would remain in that position until the end of their term. In addition to their current responsibilities, the EDU:A's Director would assume responsibility for academic administrative procedures required for majority-appointed faculty, including hiring, progression through the ranks, and tenure and continuing-status reviews.

The Director is assisted by an Undergraduate Associate Director and a Graduate Associate Director, and these roles will be retained. The School's governance structures such as standing committees, regular departmental meetings, etc., will continue in their current form. The School currently administers PI accounts for its part-time and teaching-stream faculty, and will expand this to include majority appointed faculty.

A **School of the Environment Advisory Board** will be created to work with the Director to support the School's mandate. This advisory board is intended to support information sharing, collaboration building, and mutually informed strategic planning among the participating units. The Advisory Board, made up of Chairs of cognate units, along with the leadership of the School, will meet at least two times per year to advise the director on strategic planning for the School, and to identify opportunities for interdisciplinary collaboration. Membership of the advisory board should ensure representation of each of the three FAS sectors (Humanities, Sciences, and Social Sciences), and should include standing representation from the Departments of Geography & Planning, Anthropology, Ecology & Evolutionary Biology, and Earth Sciences. To ensure consultation across all three campuses, the advisory board will also include representation from UTM and UTSC. In addition, the advisory board will include representation from the Daniels Faculty of Architecture, Landscape and Design.

The Director will consult with the Advisory Board on issues primarily related to research and graduate programs, to ensure that the School's activities complement those in cognate units. The Advisory board will also provide input to the Director on questions related to complement planning (including possibilities for cross-appointed faculty positions), proposed searches (including having members or designates serve on search committees as appropriate), curriculum change, and unit-level planning. The Advisory Board will be included in consultations that take place in the course of UTQAP cyclical reviews.

Additionally, the Director will convene and chair an **FAS Environment & Sustainability Curriculum Committee** by Winter 2022. This Committee will be a consultative body tasked with advising on undergraduate curricular pathways for students to engage with topics in environment and/or sustainability within the School and throughout the Faculty of Arts & Science. The Committee's key mandate will be to illuminate and recommend strategies for coordinating and communicating about new and existing pathways for students. In addition to facilitating student wayfinding through programs, this committee will serve the Dean's commitment, stated in the 2020-2025 Academic Plan, to "the integration of sustainability in our academic programming through new curricular pathways."

6 Space

Space available to the School is limited but sufficient for its current faculty complement. Planned renovations of the existing space occupied by the School will provide sufficient space for staff described in this proposal, and some expansion of research activities including space for new faculty hires. These planned renovations are:

- The School's current administrative office suite at 33 Willcocks Street is currently being renovated and expanded into an adjacent LSM classroom, to provide consolidated office space for all staff and academic administrators.
- In a second phase of renovations, existing research offices at 5 Bancroft Avenue and space recently vacated by the Jane Goodall Institute will be combined to provide a research hub for the School, featuring offices for all of the envisioned new faculty hires anticipated in this proposal, along with visiting scholars, postdocs, and a suite of desks for the first few cohorts of students on the new Master of Environment and Sustainability. This plan also provides for an additional LSM classroom to replace the one at 33 Willcocks Street.
- In parallel with these renovations, the open study space adjacent to the School's planned research hub at 5 Bancroft Avenue will be renovated and refurnished to create Earth Hub, a welcoming space where students from many disciplines can meet, relax, and study, featuring a mix of quiet study and social interaction zones, and new outdoor patio seating at the front entrance along the pedestrianized portion of Bancroft Avenue. The space will also feature environmentally themed murals by a local Indigenous artist. Funding contribution to create Earth Hub has already been approved by the SSEF (Student Space Enhancement Fund).

In the longer term, we anticipate moving the School to a single building at 4 Bancroft Avenue, a space currently occupied by the Department of Near & Middle Eastern Civilizations (pending their move to 90 QP), and will be assessing the feasibility of a zero-carbon retrofit to this building, in keeping with the School's commitment to climate leadership, and to provide a living laboratory for faculty and students at the School to study sustainable buildings. This move will allow for future expansion of the School's research clusters, and will create much needed laboratory space for expansion of the School's work in the Environmental Sciences.

7 Budget

Faculty Lines

FAS has an annual Faculty Appointments Committee (FAC) process, wherein units' requests for faculty lines are reviewed. Over the next 5 years, the School anticipates requesting 5.0 FTE of new faculty lines with sole- or majority-appointments in the School; each of these requested lines would require approval by FAC.

Staff

The School has a staff complement of 7.0 FTE:

- Department Manager
- Undergraduate Advisor & Student Placement Coordinator
- Financial Officer

- Assistant to the Director
- Communications Officer
- Event Coordinator
- Program Assistant & Graduate Student Advisor

This complement would be sufficient for supporting the activities of the School as an EDU:A, as it is similar in structure to the staff complement of many Departments within the Faculty. As the School explores potential opportunities to expand experiential learning, event coordination, and/or student advising (e.g., in assuming a role as a central hub for directing students into environment-related offerings across the Faculty), modifications to existing job descriptions may be required.

8 Research Funds

As an EDU:A, the School of the Environment would administer research funds for its majority- or sole-appointed faculty members. The School will also support initiatives from its graduate faculty members to secure funding for new interdisciplinary research projects by providing, for example, coordination, space, and hospitality for research proposal development meetings.

9 Review

The School and its programs are scheduled for a UTQAP cyclical review in 2025-26. The review will include a discussion of the School's success in achieving its mandate as an interdisciplinary hub.

10 Appendices

Appendix A: Current Graduate Faculty Members of the School of the Environment

This table lists current graduate appointments to the School of the Environment as of June 30, 2020.

Name	Current Graduate Faculty Appointment	Division, Department
Abizaid, Christian	Full	FAS: Geography & Planning
Ackerman, Alan	Full	FAS: English
Adams, Matthew	Full	UTM: Geography, Geomatics & Env
Ahmed, Ishtiaque	Full	FAS: Computer Science
Allen, D Grant	Full	FASE: Chemical Eng.& Applied Chemistry
Andrews, Robert	Full	FASE: Civil and Mineral Eng
Arhonditsis, George	Full	UTSC: Physical & Environmental Sci
Barrett, Spencer	Full	FASE: Ecology & Evolutionary Biology
Becker, Christoph	Full	Faculty of Information
Bernstein, Steven	Full	UTM: Political Science
Boland, Alana	Full	FAS: Geography & Planning
Brown, Laura	Full	UTM: Geography, Geomatics & Env
Chan, Arthur	Full	FASE: Chemical Eng.& Applied Chemistry
Chen, Jing	Full	FAS: Geography & Planning
Cole, Donald	Full	Dalla Lana School of Public Health
Coleman, Simon	Full	FAS: The Study of Religion
Conway, Tenley	Full	UTM: Geography, Geomatics & Env
Corey, Paul	Full	Dalla Lana School of Public Health
Corts, Kenneth	Full	Joseph L. Rotman School of Management
Cowling, Sharon	Full	FAS: Earth Sciences
Cunningham, Hilary	Full	FAS: Anthropology
Daniere, Amrita	Full	FAS: Geography & Planning
Dei, George JS	Full	OISE: Social Justice Education
Diamond, Miriam	Full	FAS: Earth sciences
Dittrich, Maria	Full	UTSC: Physical & Environmental Sci
Donmez Akyildiz, Birsen	Full	FASE: Mechanical & Industrial Eng
Drake, Jennifer Anne Pauline	Full	FASE: Civil and Mineral Engineering
Easterbrook, Steve	Full	FAS: Computer Science
Edwards, Elizabeth	Full	FASE: Chemical Eng.& Applied Chemistry
Engstrom, Mark	Full	FAS: Ecology and Evolutionary Biology
Evans, Greg	Full	FASE: Chemical Eng.& Applied Chemistry
Finkelstein, Sarah	Full	FAS: Earth sciences
Fulthorpe, Roberta	Full	UTSC: Physical & Environmental Sci
Gough, William	Full	UTSC: Physical & Environmental Sci

Name	Current Graduate Faculty Appointment	Division, Department
Green, Jessica	Full	FAS: Political Science
Gross, Mart	Full	FAS: Ecology and Evolutionary Biology
Harvey, Danny	Full	FAS: Geography & Planning
Hatzopoulou, Marianne	Full	FASE: Civil and Mineral Engineering
He, Yuhong	Full	UTM: Geography, Geomatics & Env
Hoffmann, Matthew	Full	UTSC: Political Science
Howard, Ken	Full	UTSC: Physical & Environmental Sci
Isaac, Marney	Full	UTSC: Physical & Environmental Sci
Jackson, Donald	Full	FAS: Ecology and Evolutionary Biology
Jakubiec, J. Alstan	Full	Daniels FALD
Jia, Charles	Full	FASE: Chemical Eng.& Applied Chemistry
Jones, Dylan	Full	FAS: Physics
Kant, Shashi	Full	UTM: Inst. for Management & Innovation
Karney, Bryan	Full	FASE: Civil and Mineral Engineering
Kepe, Thembela	Full	UTSC: Human Geography
Kesik, Ted	Full	Daniels FALD
Klenk, Nicole	Full	UTSC: Physical & Environmental Sci
Krkosek, Marty	Full	FAS: Ecology &Evolutionary Biology
Kushner, Paul	Full	FAS: Physics
Mabury, Scott	Full	VP-Operations & Real Estate Partnerships
Maclaren, Virginia	Full	FAS: Geography & Planning
MacLean, Heather L	Full	FASE: Civil and Mineral Engineering
Mahrt-Smith, Jan	Full	Joseph L. Rotman School of Management
Malcolm, Jay	Full	Daniels FALD: Forestry
Margolis, Liat	Full	Daniels FALD
McCarney, Patricia	Full	FAS: Political Science
Miall, Andrew	Full	FAS: Earth sciences
Miller, Eric	Full	FASE: Civil and Mineral Engineering
Mitchell, Carl	Full	UTSC: Physical & Environmental Sci
Moore, GWK	Full	UTM: Chem/Phys. Sciences
Most, Andrea	Full	FAS: English
Murphy, Jennifer	Full	FAS: Chemistry
Murphy, Michelle	Full	FAS: History
Olive, Andrea	Full	UTM: Political Science
Passeport, Elodie	Full	FASE: Civil and Mineral Engineering
Peltier, W Richard	Full	FAS: Physics
Peng, Hui	Full	FAS: Chemistry

Name	Current Graduate Faculty Appointment	Division, Department
Poland, Blake	Full	Dalla Lana School of Public Health
Posen, I. Daniel	Full	FASE: Civil and Mineral Engineering
Prudham, Scott	Full	FAS: Geography & Planning
Robinson, John	Full	FAS: Munk School Global Affairs & Public Policy
Rochman, Chelsea	Full	FAS: Ecology & Evolutionary Biology
Rodd, Helen	Full	FAS: Ecology & Evolutionary Biology
Rollinson, Njal	Full	FAS: Ecology & Evolutionary Biology
Sage, Rowan	Full	FAS: Ecology & Evolutionary Biology
Sain, Mohini	Full	FASE: Mechanical & Industrial Eng
Sass-Kortsak, Andrea	Full	Dalla Lana School of Public Health
Satsuka, Shiho	Full	FAS: Anthropology
Sawchuk, Lawrence	Full	UTSC: Anthropology
Saxe, Shoshanna	Full	FASE: Civil and Mineral Engineering
Scharper, Stephen	Full	UTM: Anthropology
Sherwood Lollar, Barbara	Full	FAS: Earth sciences
Simpson, Andre	Full	UTSC: Physical & Environmental Sci
Simpson, Myrna	Full	UTSC: Physical & Environmental Sci
Singh, Neera	Full	FAS: Geography & Planning
Skogstad, Grace	Full	UTSC: Political Science
Smith, C.Tattersall	Full	FAS: Geography & Plannng
Smith, Sandy	Full	Daniels FALD: Forestry
Soldovieri, Stefan	Full	FAS: Germanic Languages & Literatures
Strong, Kimberly	Full	FAS: Physics
Swenson, Edward	Full	FAS: Anthropology
Tarlo, Susan	Full	Dalla Lana School of Public Health
Teichman, Judith Ann	Full	UTSC: Political Science
Touchie Windisch, Marianne	Full	FASE: Civil and Mineral Engineering
Upshur, Ross Edward	Full	FAS: Inst for Hist & Phil of Sci & Tech
Vanderburg, Willem	Full	FASE: Civil and Mineral Engineering
Vieta, Marcelo A	Full	OISE: Leadership, Higher & Adult Educ.
Wakefield, Sarah	Full	FAS: Geography & Planning
Walker, Kaley	Full	FAS: Physics
Walsh, Denis	Full	FAS: Philosophy
Wania, Frank	Full	UTSC: Physical & Environmental Sci
Wells, Peter	Full	Faculty of Pharmacy
Wiseman, Clare	Full	FAS: School of the Environment
Wunch, Debra	Full	FAS: Physics
Aird, Paul	Associate	Daniels FALD: Forestry
Arrandale, Victoria	Associate	Dalla Lana School of Public Health

Name	Current Graduate Faculty Appointment	Division, Department
Bass, Brad	Associate	FAS: School of the Environment
Bowman, Kerry	Associate	FAS: Human Biology
Bunce, Susannah	Associate	UTSC: Human Geography
Chalin Clark, Catherine	Associate	Dalla Lana School of Public Health
Green, Andrew	Associate	Faculty of Law
Greenwood, Brian	Associate	UTSC: Physical & Environmental Sci
Hirsh, Jacob	Associate	UTM: Management
Holness, D Linn	Associate	Dalla Lana School of Public Health
Ing, Karen	Associate	FAS: School of the Environment
Kenney, Andrew	Associate	Daniels FALD: Forestry
Lehnherr, Igor	Associate	UTM: Geography, Geomatics & Env
Macdonald, Douglas	Associate	FAS: School of the Environment
Martell, David	Associate	Daniels FALD: Forestry
Michelson, William	Associate	FAS: Sociology
Munro, D Scott	Associate	UTM: Geography, Geomatics & Env
Murck, Barbara	Associate	UTM: Geography, Geomatics & Env
Neville, Kate	Associate	FAS: Political Science
O'Hara, Dennis	Associate	FAS: School of the Environment
Ratto, Matt	Associate	Faculty of Information
Regier, Henry	Associate	FAS: School of the Environment
Savan, Beth	Associate	FAS: School of the Environment
Stefanovic, Ingrid	Associate	FAS: Philosophy
Stren, Richard	Associate	FAS: Cities Centre
Wagner, Helene	Associate	UTM: Biology
Williams, D Dudley	Associate	
Williams, George	Associate	Dept of Biochemistry
Wilson, Kathleen	Associate	UTM: Geography, Geomatics & Env
Yoreh, Tanhum	Associate	FAS: School of the Environment
Woodland, Cindy	Associate (Restricted)	Faculty of Medicine: Pharmacology and Toxicology
Smith, Karen Louise	Associate (Restricted)	UTSC: Physical & Environmental Sci
Helm, Paul	Associate (Restricted)	UTSC: Physical & Environmental Sci

Appendix B: Tri-campus graduate programs in Environment and Sustainability

	Appeals to Students with:	Program Structure	Key Themes:	Commonalities	Career Trajectories:
MScSM Sustainability Management **(Mississauga Campus)**	• Background in management science, engineering, or natural/social sciences; • Interest in combining science and management perspectives	**Professional program** • 20-month program; • 10-16 week internship • Capstone project • Year-long research paper course	• Integration of business management, natural sciences, and social sciences; • Environmental, economic, and social sustainability; • Management principles and strategies; • Environmental Law and Policy.	Interdisciplinary approaches; Integrated thinking for 21st Century sustainability challenges Putting knowledge into action Critical thinking and communication skills	Leadership and senior management roles in sustainability in private and public sector.
MEnvSc Environmental Science **(Scarborough Campus)**	• Background in the natural sciences; • Interest in the science of environmental monitoring and assessment	**Professional program** • 12-month program; • 16-week internship; • Research paper option	• Understanding and applying scientific methodologies; • How to collect and organize original data; • Research ethics; • Science communication.		Professional environmental scientist in government, consulting, or private industry.
MES Environment and Sustainability **(St George Campus)**	• Any background; • Interest in problem-centred research on global environmental challenges	**Research-based program** • 12-month program • Living Laboratory Experience • Ongoing thesis project throughout	• Integration of perspectives from humanities, social sciences, and natural sciences; • Trans-disciplinary approach combining multiple sources of knowledge; • University campus as a living laboratory for sustainability.		Research career in academia, government, or private sector.

Appendix C: School of the Environment Working Group Membership

Chair

Penelope Lockwood, Vice-Dean, Academic Planning, Faculty of Arts & Science

Members

Robert Batey, Chair, Department of Chemistry
Janice Boddy, Chair, Department of Anthropology
Alana Boland, Associate Dean, Teaching & Learning
Ettore Damiano, Chair, Department of Economics
Richard DiFrancesco, Chair, Department of Geography & Planning
Steve Easterbrook, Director, School of the Environment
Antoinette Handley, Chair, Department of Political Science
Susan Hill, Director, Centre for Indigenous Studies
Martin Pickavé, Chair, Department of Philosophy
Russell Pysklywec, Chair, Department of Earth Sciences
Alison Smith, Chair, Department of History
Kimberly Strong, Chair, Department of Physics
Stephen Wright, Chair, Department of Ecology & Evolutionary Biology