



Urban Water TMU's Strategic Plan 2025-2030

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The Urban Water TMU Strategic Plan 2025-2030

Introduction

The Urban Water TMU is a dynamic, multidisciplinary hub of researchers dedicated to addressing complex urban water challenges through transdisciplinary collaboration, robust external partnerships, and applied research.

Centrally located in downtown Toronto, the Centre leverages its strategic location in Canada's largest urban centre and adjacent to Lake Ontario, one of the world's largest freshwater systems. With a dense network of streams and rivers flowing into the lake, the geography provides a unique living laboratory for innovative research, outreach, and inter-regional collaboration across diverse sectors.

The Centre brings together faculty members and students from six faculties and thirteen departments, spanning disciplines from natural sciences and engineering to public policy and social sciences. Researchers tackle a wide array of urban water issues such as Contaminants in Freshwater and Urban Water Systems, Stormwater Management, Wastewater Optimization and Resource Recovery, and the Governance of these issues in Canada. The dedicated labs and collaborative spaces are hubs of transdisciplinary research and activities of the Centre. The space serves as a platform for the training, mentoring, and experiential learning of students at every level and promoting a supportive community for early career researchers.

The **Strategic Plan 2025–2030** outlines a clear path forward while remaining adaptable to emerging opportunities and evolving needs. By 2030, the Centre will be nationally recognized for innovation and ability to build networks and perform transdisciplinary Urban Water TMU, with a focus on innovation in wastewater treatment and resource recovery, innovation in the management of stormwater, and the monitoring and removal of contaminants from all water resources. State-of-the-art labs and shared collaboration spaces foster innovation and connect researchers and students from across diverse disciplines.

A vibrant Student Leadership Committee drives student engagement through cross-disciplinary initiatives supported by core research members. The Centre also supports multidisciplinary academic programming, including liberal studies courses about the fundamentals of water and water governance and a minor in “Water in a Changing World” which is accessible to students from all programs

across campus. Research outcomes and activities are actively communicated to both internal and external audiences, and the Centre is integrated into the University's broader sustainability framework.

Guiding Principles

As part of developing its **2025–2030 Strategic Plan**, the Urban Water TMU has established a set of core **Guiding Principles**.

The Centre aligns its mission with the university's broader commitment to addressing real-world challenges that impact the health and sustainability of the urban water cycle. The **UWRC Strategic Plan (2025–2030)** is in full alignment with the university's **Strategic Vision 2020–2030** and the new **Strategic Research Plan 2025–2030**. The Centre will continue to build on its research strengths while actively fostering transdisciplinary collaboration across engineering, environmental science, public health, geography, law, and policy to bridge traditional research and academic boundaries.

Finding innovative solutions for water in a changing world.

To stay at the forefront of water research and innovation, the Centre will maintain strong relationships with government, industry partners, non-profit, and academic collaborators through established networks and by leading innovative symposia, workshops, and roundtable discussions. These relationships are essential for developing forward-thinking, adaptable solutions to pressing and emerging water issues in a rapidly changing world.

Bridging disciplinary silos and promoting transdisciplinary research.

The Centre will bring researchers from diverse disciplines together and facilitate transdisciplinary collaborations. Moreover, the Centre will prioritize partnerships with other water-focused institutes and organizations across Ontario, as these collaborations are key to breaking down disciplinary silos and advancing cross-sectoral, transdisciplinary research.

Leveraging the collaborative spaces and equipment to their full potential.

By maximizing the use of shared collaborative spaces and specialized research infrastructure, the Centre supports a fully interdisciplinary approach that removes

barriers and fosters meaningful collaboration across faculties.

Positioning students at the forefront. Providing a high-quality training environment in both science and governance.

The Centre places students at the heart of its mission, offering a high-quality training environment that exposes students to diverse approaches to Urban Water TMU and integrates a water governance lens to this transdisciplinary approach. Students are embedded in all aspects of the Centre's work, contributing to its research excellence and driving innovation.

Advancing equity, diversity, inclusion, and access.

Co-creating with Indigenous Communities based on the Principles of Truth and Reconciliation.

Equity, diversity, inclusion, and accessibility (EDIA) are foundational to the Centre's operations, research, and training programs. The Centre is committed to advancing inclusive practices, with a strong emphasis on co-developing research and partnerships with Indigenous communities, grounded in the Principles of Truth and Reconciliation.

Overall, the Urban Water TMU Centre approaches water-related challenges with a **holistic, systems-based lens**, supporting transdisciplinary collaboration from problem definition through to solution development and implementation.

Strategic Goals for 2025-2030

Goal #1

Urban Water TMU is a leader in transdisciplinary water challenges including Contaminants in Freshwater and Urban Water Systems, Stormwater Management, Wastewater Optimization and Resource Recovery, and the Governance of these challenges in Canada.

Supporting Strategies

- Actively identify and promote research initiatives that bridge disciplinary divides and approach complex challenges through a transdisciplinary lens.
- Support and empower team leads in pursuing grant applications and other funding opportunities, providing the necessary support to strengthen their efforts.
- Engage with external partners—including government, industry, and community organizations—to enhance the impact and competitiveness of proposals, particularly in key priority research areas.
- Host symposia, seminars, and innovative activities to foster knowledge exchange, and offer knowledge dissemination support to distribute research outcomes and technological innovations to a broad audience.
- Support relationship development, education, and projects with Indigenous communities with a view to co-creating projects and initiatives with Indigenous communities.

Goal #2

The Urban Water TMU dedicated laboratories, meeting spaces, and equipment serve as a platform to bridge disciplinary silos and build collective research success.

Supporting Strategies

- Facilitate collaborative research projects and teams through the optimized and efficient management of the shared spaces within the CUI facility.
- Develop Principles of Shared Use for Space and Equipment, which guide how research and collaboration are conducted in communal areas.
- Develop a centralized equipment database to catalog all instruments housed within the Centre. This resource will include onboarding protocols, usage guidelines, and terms of access for each piece of equipment, helping streamline training and clarify user responsibilities.

Goal #3

Urban Water TMU serves as a hub for the training, mentoring, and experiential learning of high-quality personnel.

Supporting Strategies

- Continue to support and elevate the work of the Student Leadership Committee, enabling it to continue uniting students from a wide range of disciplines, and its ability to contribute to urban water initiatives.

- Offer high-quality training, expert mentorship, and a broad spectrum of experiential learning opportunities for highly qualified personnel (HQP), including postdoctoral fellows. These individuals will engage with cutting-edge research, state of the art equipment, and leading expertise across multiple disciplines.
- Enrich learning and career development, the Centre will create opportunities for early career researchers to participate in a diverse internal research environment, while also connecting them with external sectors—such as government, industry, and community organizations—to build relationships and broaden their networks.
- Organize activities aimed at advancing the professional development of all its HQP, ensuring access to tools and experiences that prepare them for future leadership roles in urban water and related fields.
- Maintain an inclusive and welcoming environment for all its members from all academic disciplines and backgrounds, supporting their growth and encouraging the pursuit of their professional goals.

Goal #4

Urban Water TMU has a Communications Plan that amplifies the research and activities of the Centre.

Supporting Strategies

- Actively promote its research, people, and activities through regular newsletters, articles on the updated website, consistent presence on social media platforms, and amplified by integration with Central TMU Communications.
- Build community and networks internally and externally and share news across these networks, including faculty, students, board members, strategic partners, and research collaborators.
- Enhance the visibility of the Centre through strategic partnerships, collaborative initiatives, and speaking opportunities at conferences, seminars, workshops.
- Recognize and celebrate student and researcher successes by supporting award nominations, scholarship applications, and professional development opportunities that highlight their contributions and achievements.
- Executive members will serve as ambassadors to their respective faculties, fostering cross-faculty collaboration and enhancing the Centre's visibility and impact across the university.
- Key accomplishments, performance metrics, and KPIs will be communicated through Annual Reports and Strategic Plan updates, which will be submitted to the Dean and other university leadership.

Goal #5

Urban Water TMU has a Sustainability Plan to support the future of Urban Water.

Supporting Deliverables

- Systematically track key performance indicators (KPIs) and maintain detailed metrics related to research outputs, grant acquisition, awards, research-related activities, and sustainability initiatives.
- Actively promote and pursue research grants and funding opportunities that contribute to the Centre's financial sustainability and operational support.
- Implement the Membership Pledge, ensuring active engagement through regular meetings and ongoing dialogue with its members.
- Support financial transparency and efficiency, the Centre will coordinate closely with central TMU services to ensure the timely delivery of funds.
- Continue to advocate for resources that enhance its research, training, and overall impact, ensuring the needs of its community are effectively represented.
- Align all operations and initiatives of the Centre with the frameworks established by the University, supporting both the TMU Strategic Plan (2020–2030) and the Strategic Research Plan (2025–2030).

Implementation plan

Urban Water TMU will continue to break down disciplinary silos, build community internally and externally, and empower multidisciplinary initiatives. The Centre will continue to consult and collaborate closely with its members and stakeholders—including faculty, students, board members, partners, and collaborators—to achieve its objectives. Students will be placed at the forefront with a broad spectrum of experiential learning opportunities and support. The Student Leadership Committee will be invited to provide input and propose ways to support the Centre's goals.

Transparency and accountability will be upheld across governance, resource allocation, and communication to ensure alignment with the University's mission, values, and strategic priorities. Clear metrics and key performance indicators will be used to track progress, and performance will be reported during Board Meetings and Annual Reports.

The Centre is strongly dedicated to fostering excellence through advancing Equity, Diversity, and Inclusion, and when collaborating with Indigenous communities co-creating research and initiatives. Ultimately, the Centre aspires to establish itself as a leading hub for addressing complex urban water challenges and shaping inclusive solutions.