



Environmental Sustainability Report

April 2025

Letter from our President and CEO

To our community,

I am honoured to introduce The Ottawa Hospital's inaugural Environmental Sustainability Report, celebrating the work our staff, physicians, and community members have done to improve the sustainable wellbeing of our patients and planet.

Environmental stewardship isn't new to us. We have a long history at The Ottawa Hospital of award-winning energy and water efficiency and we remain committed to promoting environmental sustainability and improving planetary health. Moreover, environmental sustainability is a core planning principle in the design of our new state-of-the-art campus.

Since integrating environmental stewardship as a key strategic priority in 2023, our staff, patients, and partner organizations have demonstrated tremendous enthusiasm for integrating the sustainable principles into our operations and decision-making processes. From front-line medical teams to housekeeping, pharmacy, procurement, facilities and beyond, our teams have collaborated on this shared effort to reduce our environmental impact while maintaining the same high-quality compassionate patient care.

I'm especially proud to celebrate the leadership of our frontline staff in helping us advance towards our ambitious goals, as several of our most successful environmental sustainability projects last year were initiated and led by our facilities technicians, nurses, and physicians.

Nonetheless, I will be the first to admit that there remains a lot of work to do. The health care industry did not evolve with environmental sustainability as a major concern, so we are having to rethink many of our processes. But as this report shows we're committed to doing just that.

I'm thrilled to showcase this ongoing work in our first Environmental Sustainability Report, and I look forward to continuing to work together to improve the health of our planet, patients, and community in the years to come.

Cameron Love, President and CEO



Land Acknowledgement

The Ottawa Hospital acknowledges it is located upon the traditional and unceded territory of the Algonquin people and respects the traditional knowledge and healing developed over generations. We have the privilege and responsibility to serve First Nations, Métis and Inuit of many backgrounds and from many treaty and non-treaty lands and territories and to demonstrate respect for the contributions and cultures of Indigenous Peoples.



The art series *Algonquin Ancestral Medicinal Knowledge* showcases Algonquin knowledge of medicinal plants and the practice of passing it down through generations. A series collaboration by artists Simon Brascoupé and Mairi Brascoupé from Kitigan Zibi Anishinabeg, it features plant images inspired by ancient Algonquin birchbark cut outs used as templates for decorating birchbark baskets and has been shown in museum collections around the world.

Learn more about our [path to reconciliation](#).

Environmental Sustainability Strategy

In 2023, the strategic plan for The Ottawa Hospital (TOH) was updated with priorities that reflect a re-imagining of The Ottawa Hospital’s role in our community and in the health-care system itself. Key to this role is our profound **social responsibility** to our community.



Lead environmental stewardship in health care – Become a leader in sustainable health care, applying principles of planetary health to improve the well-being of our patients and our community, and contribute positively to a healthier planet.

To achieve this, The Ottawa Hospital created a multi-disciplinary Environmental Sustainability Council to provide oversight and guidance to a dedicated Environmental Sustainability Team to lead and execute a corporate environmental sustainability strategy. The development of this strategy and workplan for the next five years was developed in 2024 with various stakeholders within TOH and corporate partners. The strategy sets out objectives to achieve three strategic goals in advancing environmental sustainability across the organization:

<p>Goal 1 Grow a culture of sustainability</p>	<p>Goal 2 Reduce environmental impact of operations</p>	<p>Goal 3 Support health system climate resilience & adaptation</p>
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Objectives are organized to support action across six impact areas that address environmental sustainability holistically:


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Milestones & Achievements





Our environmental sustainability journey has been paved with many projects and milestones that have brought us to where we are now.


Reduction of corporate greenhouse gas (GHG) energy emissions since 2018

-5.5%



...the same as taking 425 cars off the road!¹

			
147	5	21	346
Tonnes of waste diverted from landfill in 2023/24 compared to 2021	Green Teams of staff and partners in 2024	Clinical units and departments optimizing recycling in 2024	Medical devices donated between 2022 and 2024

 Corporate **policies updated** to integrate Environmental Stewardship: The **TOH Code of Ethics and Workplace Conduct** and our corporate **Procurement Policy**.

	
22,634 km	27%
Biked by Team TOH during Let's Bike Month in June 2024	Staff using sustainable transportation to commute ²

Goal 1: Grow a culture of sustainability

We want to embed environmental stewardship into our DNA, not just as a project, but as part of our day-to-day operations at TOH. To do this, we want to support a culture of sustainability by harnessing the enthusiasm of our community, improving transparency and reporting on environmental performance, engaging our diverse community of stakeholders, and integrating environmental sustainability into our policies and procedures.

Growing Community

As active members of our community, our staff and their families helped protect and care for public greenspaces near our hospitals in 2024 by participating in The City of Ottawa’s annual Cleaning the Capital campaign in both April and October.



Together, we collected **11 bags** of recycling, and **24 bags** of garbage from sites near our General and Civic campuses!



The Power of Our People

Working together we can do great things! Multiple 'green teams' of staff, leaders, and clinicians exist at TOH that focus on improving the environmental impact of specific parts of our operations while continuing to provide exceptional patient care.

The corporate Environmental Sustainability Council chaired by the Executive Vice President and Chief Planning & Development Officer is made up of multi-disciplinary representation from departments within TOH. The Council supervises corporate performance, provides guidance and feedback on activities, and reports to the Board of Directors.



The **Pharmacy Environmental Stewardship Committee** has been a leader in our sustainability effort by working to reduce the environmental impact of medication use at TOH. This team studied the usage of Metered Dose Inhalers at TOH, since each inhaler has the same emissions as driving 139km in a gas-powered car³. Based on their findings, this team has started to implement strategies to reduce unnecessary medication waste, with a particular focus on inhalers.



Clinical Product Sustainability TaskForce



The **Clinical Product Sustainability TaskForce**, led by the Chief Procurement Officer, investigates opportunities for reducing the environmental impact of clinical products purchased by the hospital through reduction, reuse and recycling initiatives, or sourcing more environmentally friendly alternatives. Most notably this year, the TaskForce implemented reusable gowns and biodegradable gloves.

Read more about their work in [Healthy Tomorrows](#).

Spring Cleaning Furniture Giveaways

In 2023, TOH donated unclaimed office furniture to staff to divert it from landfill. Some used the filing cabinets to set up a workshop in their garage or kids' dorm rooms.



Pedal Power

Team TOH showcased our pedal power during EnviroCentre's annual Let's Bike Month Campaign in June 2024 and organized staff bike rides from all three campuses to promote cycling as a method of active and sustainable transportation!



22,634 km biked

Farther than Vancouver to Newfoundland and back!



145 members

Largest team in Ottawa!

In 2024, local bike shop, **Quick Cranks**, generously donated their time and expertise to tune up 180 staff commuter bikes for free!



Goal 2: Reduce environmental impact of operations

Nationally, healthcare is responsible for nearly 4.6% of Canadian greenhouse gas emissions⁴. We are working to reduce the environmental impact of operations by improving the efficiency of our facilities, looking for reusable alternatives, and promoting proper waste diversion.

Focus on the Frontline

As the people who know their work best, many of our most successful projects come from frontline staff with ideas for change. From facilities to nursing, ideas that start small can have a big impact!



The engineering team at the **Riverside Campus** reduced **natural gas usage by 55%** year over year by recommending specific investments in equipment to improve efficiency - the same as taking 229 cars off the road for a year!! Read more about their success [here](#).

Weighing recycling success at the Civic Campus

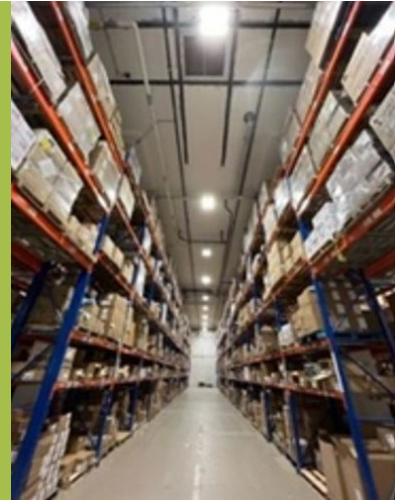
These geriatric medicine nurses, Caiti Wallwork and Sabrina Duckworth, launched a passion project that would see their unit nearly **triple its recycling volume**, by optimizing bin locations, improving signage, and having a can-do attitude! Read more about their project [here](#).



“Hopefully, our project will inspire and motivate somebody else at the hospital who sees something that can be fixed or improved. Ideally, the success of our work will make them feel like they have the power to make that change.”

Snippets of Success

Facilities Management completed a lighting upgrade at the General Campus warehouse to replace failing fixtures that created a dim and hazardous workspace. The switch to *LED lights and occupancy sensors* with incentive support from the Independent Electricity System Operator (IESO) resulted in immediate energy and cost savings after 18 months. Facilities has also been supporting the Ottawa Hospital Research Institute (OHRI) in reducing their energy consumption by similarly installing occupancy sensors for reducing after-hours energy use.



The **Department of Anesthesiology** has reduced the environmental impact of anesthetic gasses used at TOH by switching to Sevoflurane from Desflurane, which has about 20 times greater emissions impact⁵. Successfully reducing usage of Desflurane has eliminated over **1,000,000 kg CO2e** of annual greenhouse gas emissions since 2018!



Working with the **Medical Device Reprocessing Department** and **Surgical Suite** teams, the **Clinical Product Sustainability TaskForce** spearheaded the transition from disposable to reusable gowns over the course of 2024. This project will divert more than **33,000 kg** of waste from landfill every year!⁶



Donation Station

When the **Biomedical Engineering** department upgrades equipment, they assess the viability of replaced medical devices for donation to humanitarian aid and education organizations. Between 2022 and 2024, **346 medical devices** including ventilators, blood pressure monitors, and defibrillators were donated to Collaboration Santé International and the University of Ottawa Skills and Simulation Centre to give these devices another useful life providing healthcare.

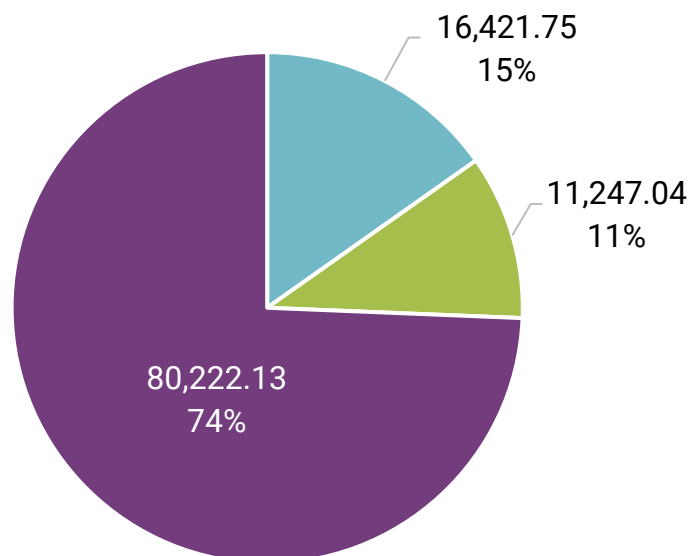
Measuring our Impact

Modern healthcare requires significant amounts of water, energy, supplies, and pharmaceuticals to provide world-class patient care. Understanding our environmental impact is an important step to ensure we're directing our efforts to the areas of our operations that have the biggest environmental impacts. In 2024, we developed a comprehensive carbon footprint of corporate TOH activities including our direct and indirect emissions.

Our carbon footprint was calculated using the [GHG Protocol](#) methodology, utilizing an operational control method for corporate entities within TOH's full operational control⁷. All corporate energy, supply chain, business travel and leased assets are included in this calculation, however employee and visitor travel are excluded. Emissions were estimated using a combination of spend- and activity-based data through ENERGY STAR Portfolio Manager for energy use, and the Practice Greenhealth Health Care Emissions Impact Calculator for all other categories which utilizing U.S carbon emissions factors. For more information on how we calculated our carbon footprint, please contact GreenTeam@toh.ca.

The Ottawa Hospital Carbon Footprint (tCO₂e) April 1, 2023 – March 31, 2024

- **Scope 1: Direct Emissions**
Energy, anesthetic gasses
- **Scope 2: Purchased Energy**
Electricity, district energy
- **Scope 3: Indirect Emissions**
Waste, supply chain,
business travel.



Indirect environmental impacts from supply chain and pharmaceuticals typically make up most of the emissions of providing healthcare⁸. These are areas of focus for the Pharmacy Environmental Stewardship Committee and Clinical Product Sustainability TaskForce.

Goal 3: Support healthcare system resilience & climate adaptation

The resiliency of the healthcare system is increasingly being tested by severe weather events, extreme heat, and wildfire smoke. To adapt to these impacts of climate change, sharing information with our peer healthcare organizations, supporting sustainability solutions in the region, and integrating climate into risk management are key to supporting a resilient health system, now and in the future.

Teamwork makes the dream work

Our partners at the **Ottawa Hospital Research Institute (OHRI)** and **University of Ottawa** are supporting innovative and collaborative ways to improve sustainability across our network of educators, clinicians, and researchers.



Networks of Expertise

To facilitate information sharing and learning of healthcare environmental sustainability nationwide, we are active participants in networks developed by the Canadian Coalition for Green Healthcare, CASCADES, and the Ontario Surgical Quality Network's Cut the Carbon Campaign.



Towards a Sustainable Supply Chain

The environmental impact of the manufacturing and supply of medical products used at TOH represents a significant portion of our carbon footprint. To support the supply chain's contribution to planetary health TOH has established a set of Environmental, Social, and Governance (ESG) criteria for rating supplier proposals and partnered with **Mohawk Medbuy Corporation** (MMC) who contract for healthcare organizations across Ontario and Canada. TOH is represented at MMC's ESG Member Council who provide ESG training for hospital staff and work with suppliers and manufacturers to improve environmental practices.



New Campus Development

The Ottawa Hospital's New Campus presents an opportunity to build climate resilience for the coming decades into the new infrastructure. The design of The Ottawa Hospital's New Campus aims to be one of the most sustainable healthcare facilities in Canada, with environmental sustainability as a core planning principle. Integrating natural lighting and a landscape designed to support native plants and pollinators throughout the New Campus will promote health and wellness for patients and staff while supporting local biodiversity. Read more [here](#).



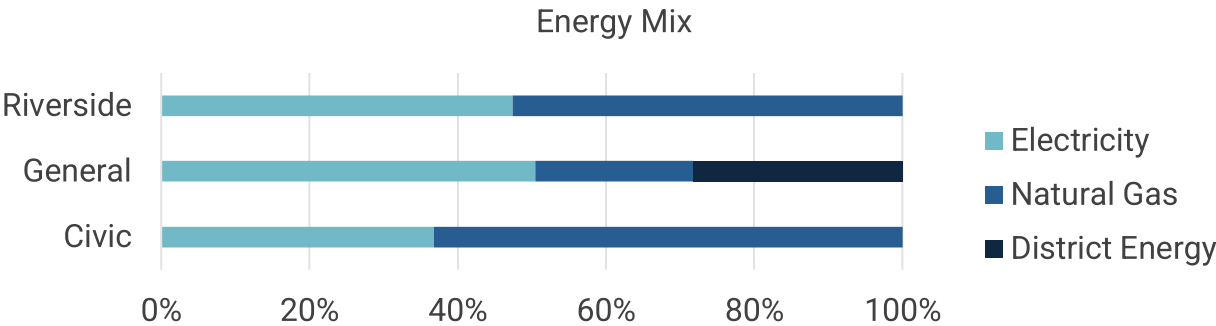
Artistic rendering for information purposes only.

Performance Dashboard

All data shown in this dashboard is for Fiscal Year 2023/24, corresponding to April 1, 2023 to March 31, 2024.

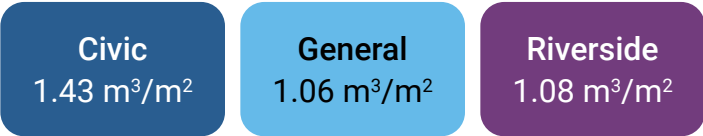
Energy

Each campus uses multiple types of energy for heating, cooling, sterilization, and powering our equipment; the mix for each campus is shown below. For more information on historical energy usage, intensity and emissions at each campus, please see the [2024-2028 Energy Conservation Demand Management Plan](#).



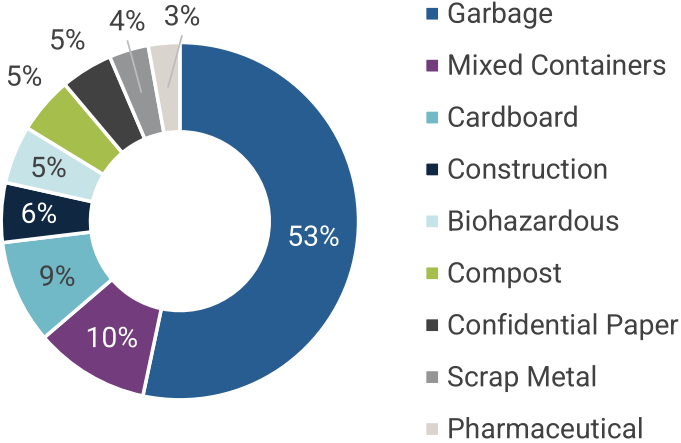
Water

Our main campuses used **427,390 m³** of water for cooling, drinking, and cleaning. Water usage intensity relative to each campus is shown to the right.



Waste

Waste is separated into 19 different streams for proper disposal. Since 2021, there has been a 2% decrease in landfill waste across our three main campuses. That is equal to the weight of nearly 30 elephants!



Sources & Notes

1. Collected from energy data tracked in ENERGY STAR Portfolio Manager.
2. Data collected as part of the Transportation Demand Management Strategy in 2022.
3. CASCADES. (2021, October). *Environmentally sustainable opportunities for health systems primer series: inhalers*. <https://view.publitas.com/5231e51e-4654-42c2-accd-b722e21f3093/environmentally-sustainable-opportunities-for-health-systems-primer-series-inhalers/page/1>
4. Eckelman, M., Sherman, J. D., & MacNeill, A. J. (2018, July). Life cycle environmental emissions and health damages from the Canadian healthcare system: An economic-environmental-epidemiological analysis. *PLOS Medicine* 15(7): e1002623. <https://doi.org/10.1371/journal.pmed.1002623>
5. Gordon D. (2020). Sustainability in the Operating Room: Reducing Our Impact on the Planet. *Anesthesiology clinics*, 38(3), 679–692. <https://doi.org/10.1016/j.anclin.2020.06.006>
6. Weight of waste diverted is calculated by the approximate total weight of disposable gowns purchased annually in previous years.
7. Metrics include data for sites operated by The Ottawa Hospital, Family Health Team, Residence Corporation, and The Ottawa Hospital Auxiliaries. Estimated energy, waste, and water used by The University of Ottawa Heart Institute, Ottawa Hospital Research Institute, and Eastern Ontario Laboratory Association has been excluded based on operating square footage.
8. Rodríguez-Jiménez, L., Romero-Martín, M., Spruell, T., Steley, Z., & Gómez-Salgado, J. (2023). The carbon footprint of healthcare settings: A systematic review. *Journal of Advanced Nursing*, 79, 2830-2844. <https://doi.org/10.1111/jan.15671>

Thank you to our collaborators:



For more information, contact GreenTeam@toh.ca