

University of Winnipeg Campus Sustainability Council Meeting

Thursday, June 15, 2:00 p.m.



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We acknowledge that we are gathered on ancestral lands, on Treaty One Territory. These lands are the heartland of the Métis people. We acknowledge that our water is sourced from Shoal Lake 40 First Nation.

The University of Winnipeg is committed to partnering with Indigenous Peoples, and expanding knowledge related to the rights and responsibilities of the peoples in this area. Land acknowledgements are an opportunity to create awareness and understanding with respect to our commitment to reconciliation.

It is important to note that land acknowledgement is only a small part of cultivating strong relationships with Indigenous communities.

Visit uwinnipeg.ca/indigenous to access important resources.



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Agenda

2:00 - 2:10

Welcome and Introductions

2:10 - 3:30

Annual Sustainability Report FY2022

- Highlights, Challenges and opportunities
- Building Performance
- Social Responsibility
- Campus Engagement, Education and Research
- Feedback and Questions

2:30 - 2:45

2023 Internal Waste Audit

2:45 - 3:00

Facilities Update: Energy Systems and Landscaping

3:00 - 3:15

Academic and Research

3:00 - 3:15

Sustainability Planning

FY2022 Campus Sustainability Report

Highlights, Challenges and Opportunities



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Highlights, Challenges and Opportunities

Highlights:

- Waste Audit
- Expansion of the recycling program
- New Bins

Challenges

- Energy and emissions increases
- STARS report delayed

Opportunities:

- Strategic planning process
- Net zero energy systems
- Sustainable landscaping

Sustainable Building Performance

FY2022 Sustainability Report



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Performance Summary

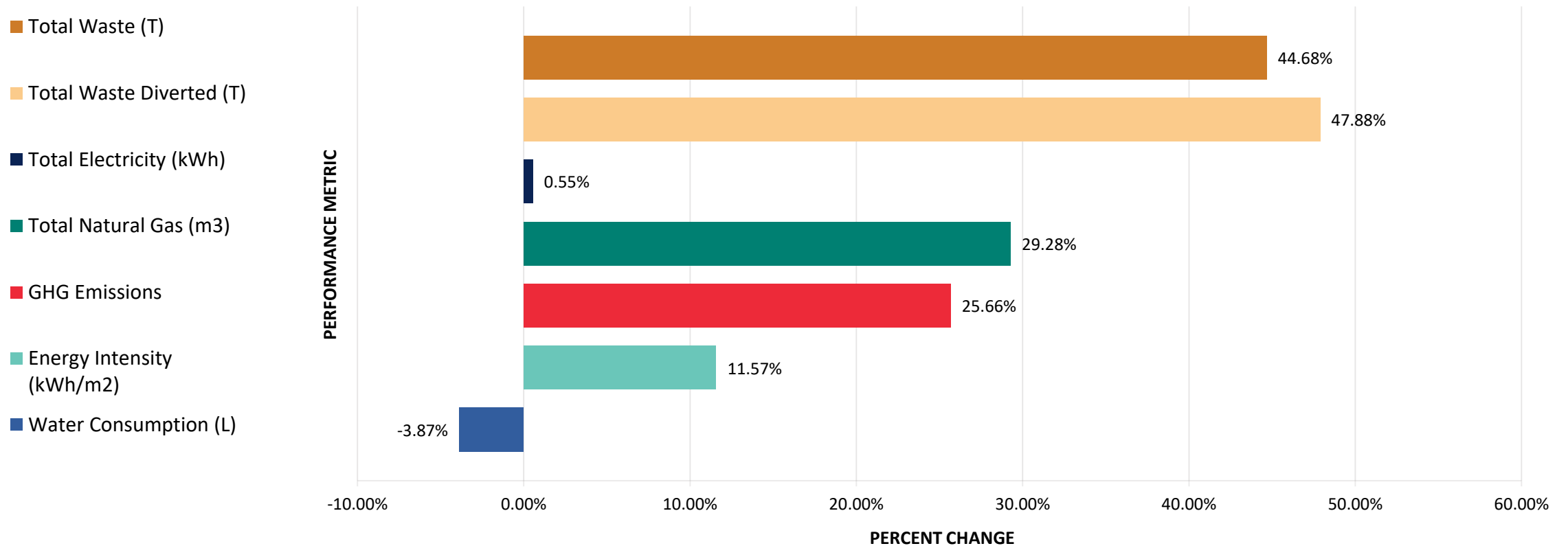


Figure 1. Sustainability performance summary for the University of Winnipeg from FY2021-FY2022 showing the annual percent change for waste collection (T), waste diverted (T), water consumption (L), energy intensity (kWh/m²), electricity consumption (kWh), natural gas consumption (m³), and greenhouse gas (GHG) emissions (TCO₂e). GHG emission and natural gas consumption are normalized for weather.

Greenhouse Gas Emissions

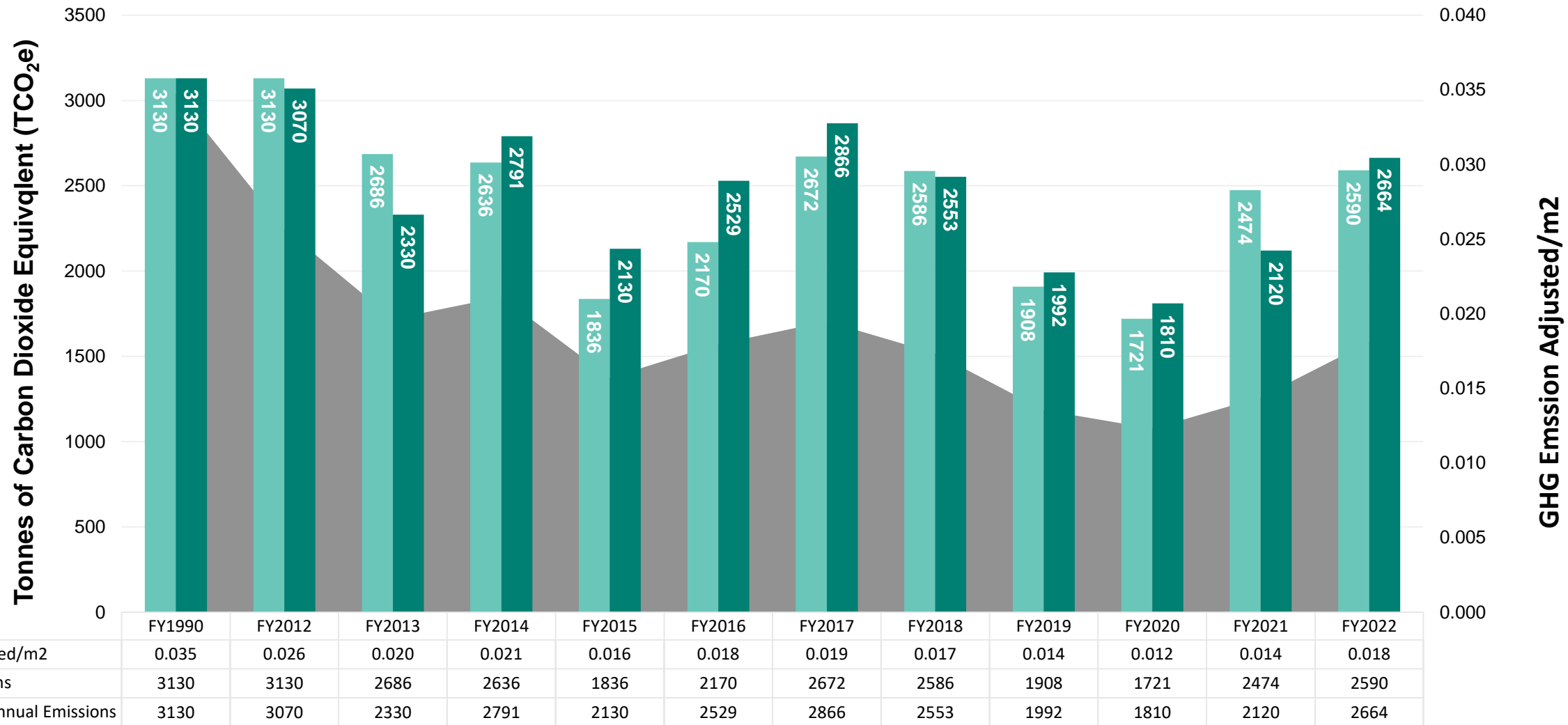


Figure 2. Greenhouse gas emissions and targets (TCO₂e) from 2011 to 2022 (including the baseline year of 1990) for the University of Winnipeg. Real annual emission and weather adjusted amounts are shown.

Energy Consumption

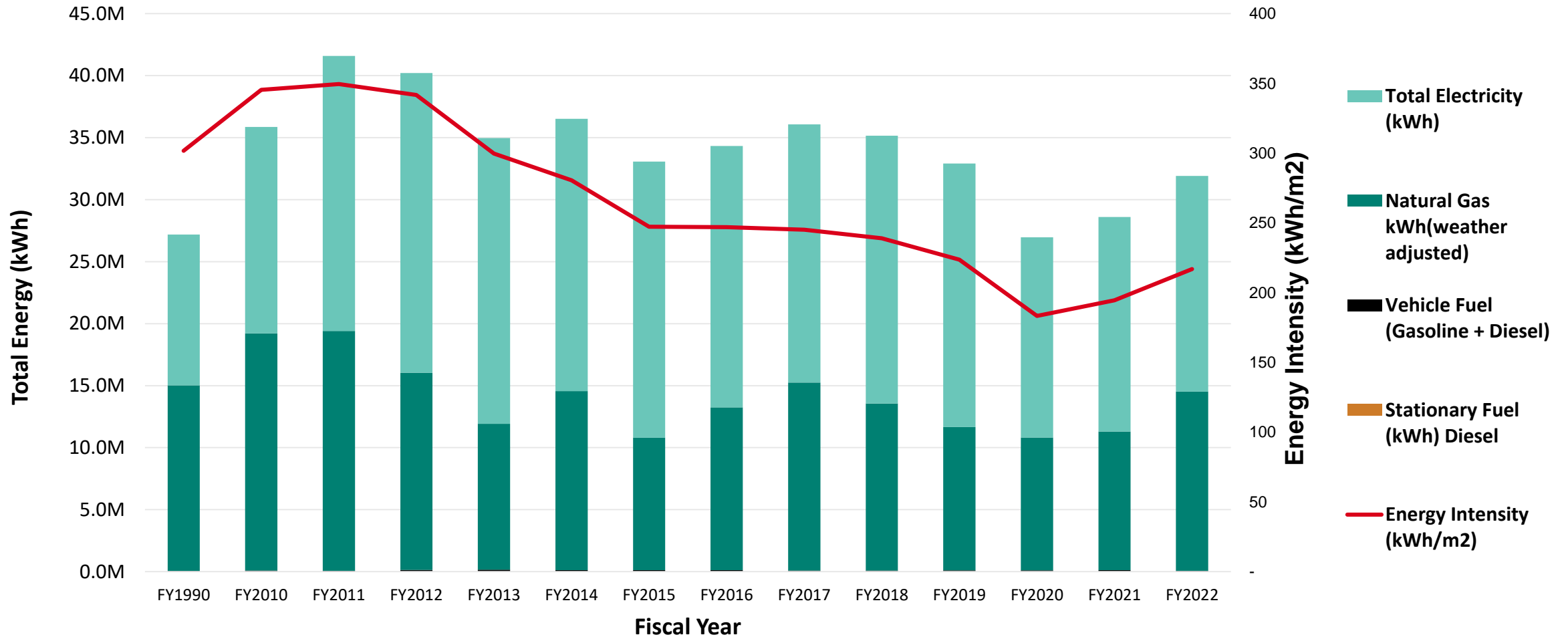


Figure 3. The energy consumption (kWh) breakdown for the University of Winnipeg from FY1990 to FY2022 including natural gas (weather adjusted) and hydro. The intensity (kWh/m²) is also shown. (Stationary fuel and vehicle fuel, which comprise <1% energy consumption per year, are not pictured).

Breakdown of GHG Emissions

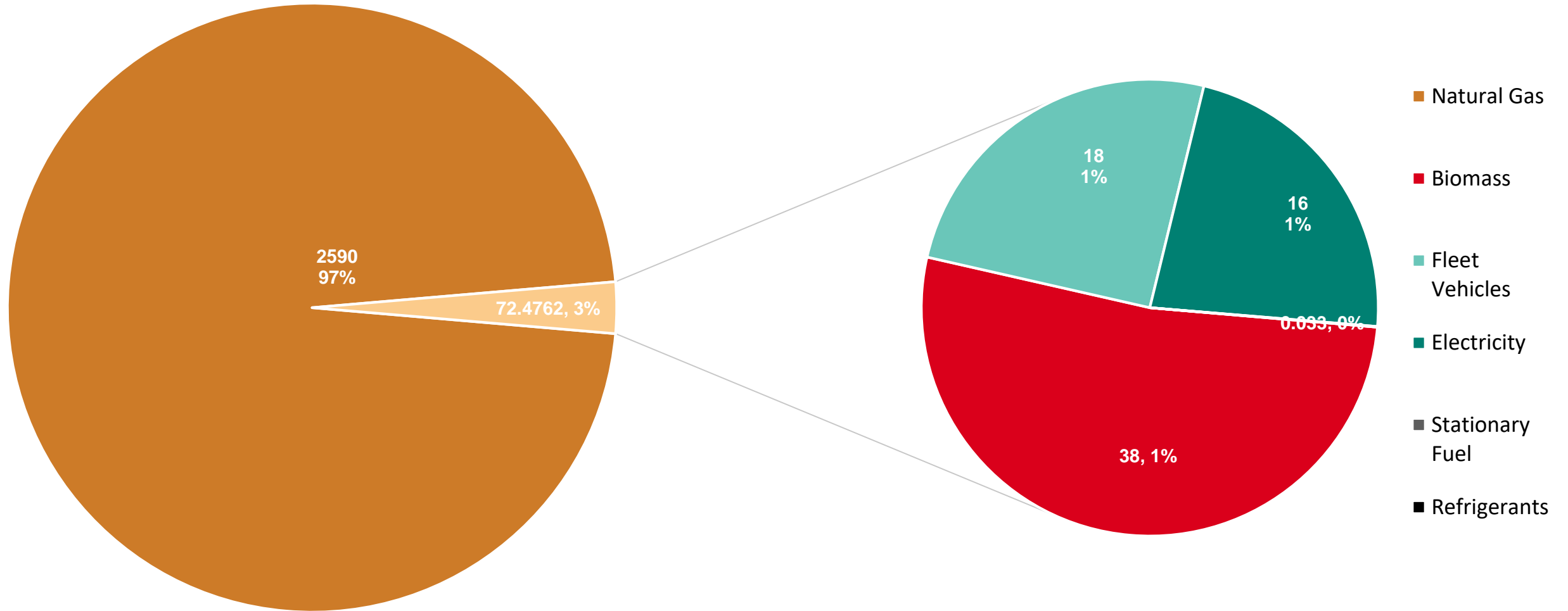


Figure 4. Breakdown of greenhouse gas emissions (TCO2e) from the University of Winnipeg in FY2022 by source, including electricity, natural gas, fleet vehicles, stationary fuel, and refrigerants.

Energy Cost Analysis

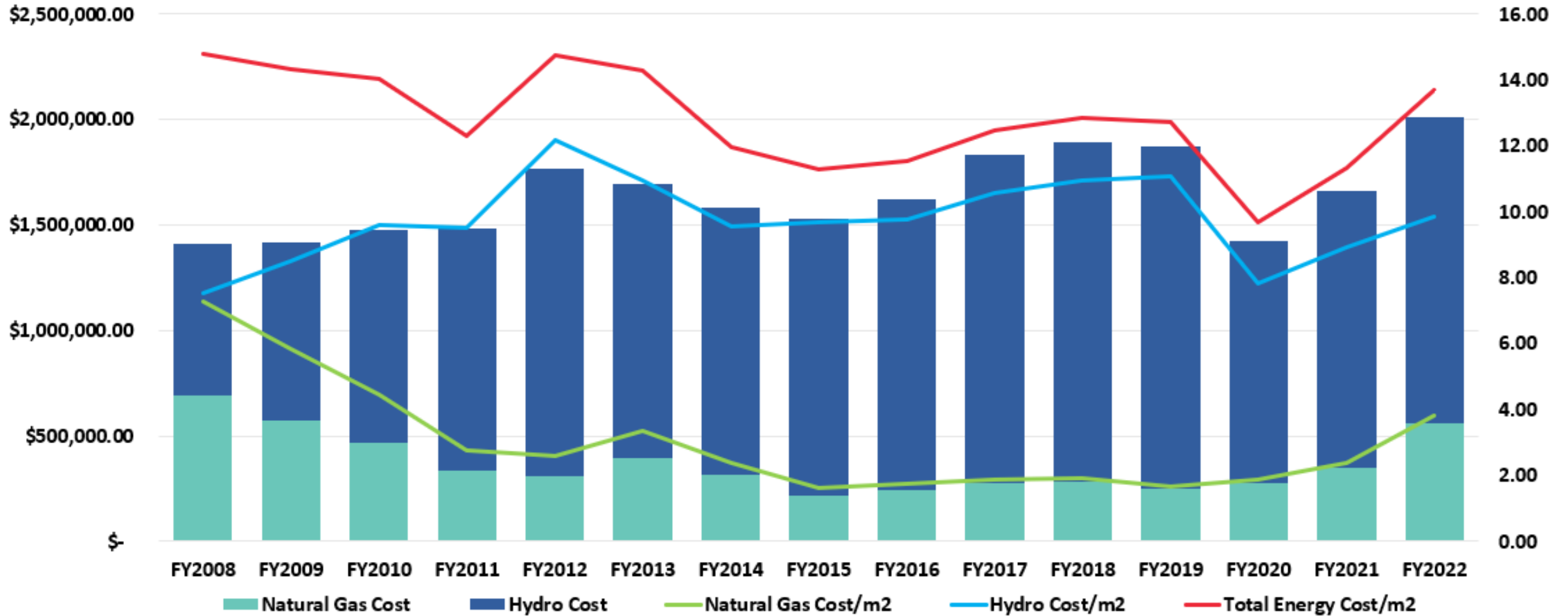


Figure 5. The energy cost analysis breakdown for the University of Winnipeg from FY2008 to FY2022 including natural gas and hydro. The cost was measured as cost/m².

Water Consumption

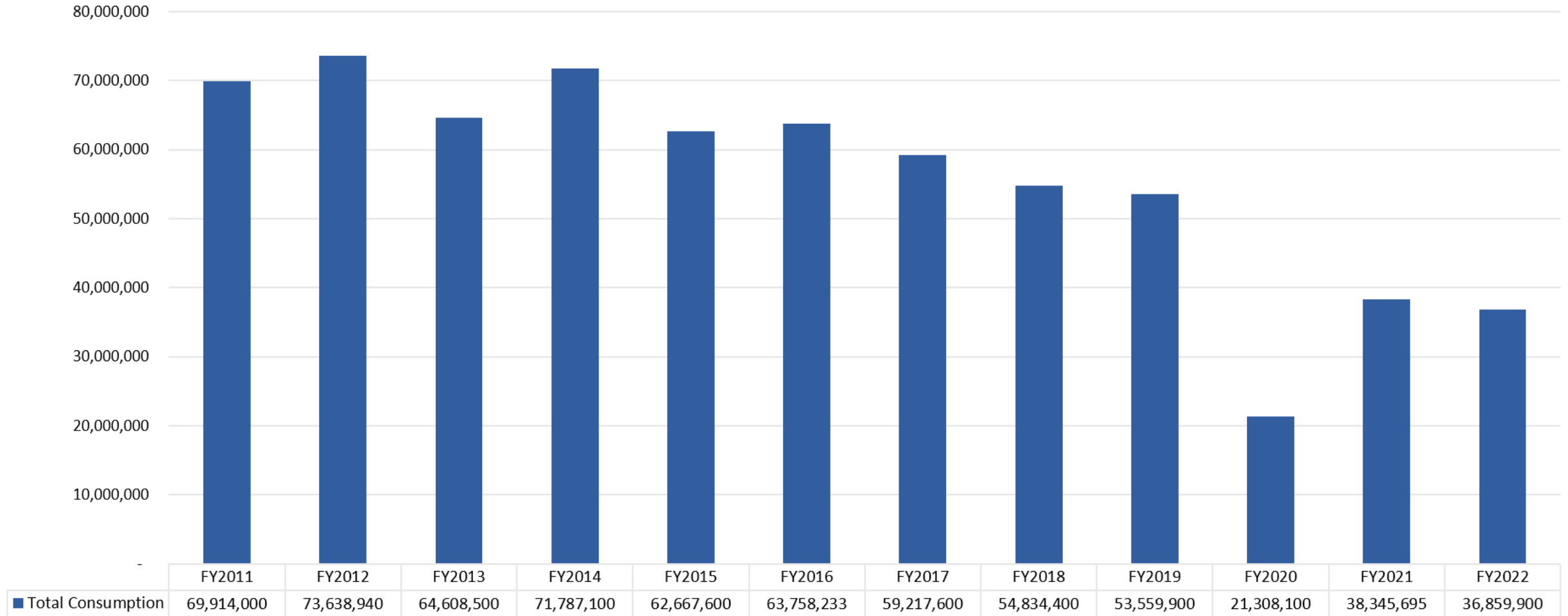


Figure 7. The annual water consumption (L) at the University of Winnipeg, from FY2011 to FY2022.

Cleaning and Janitorial Data

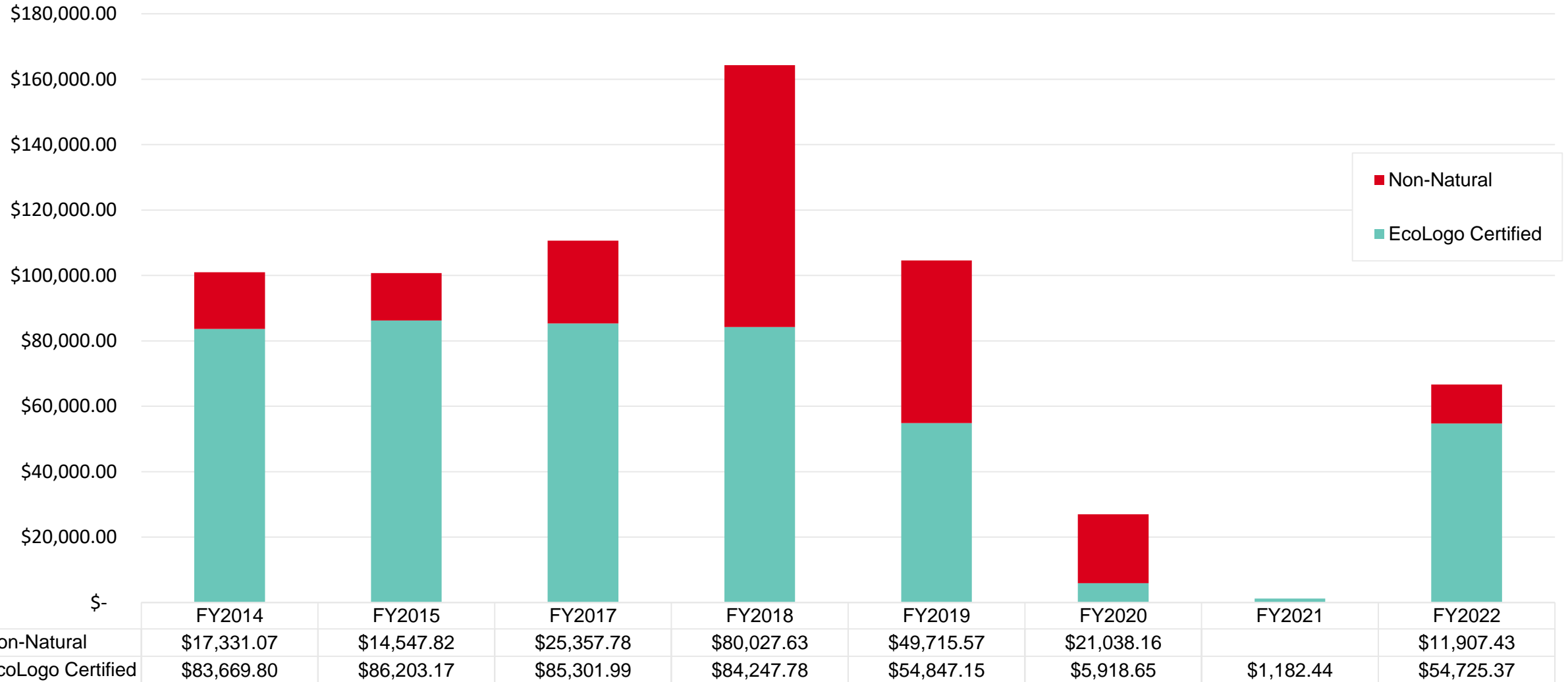
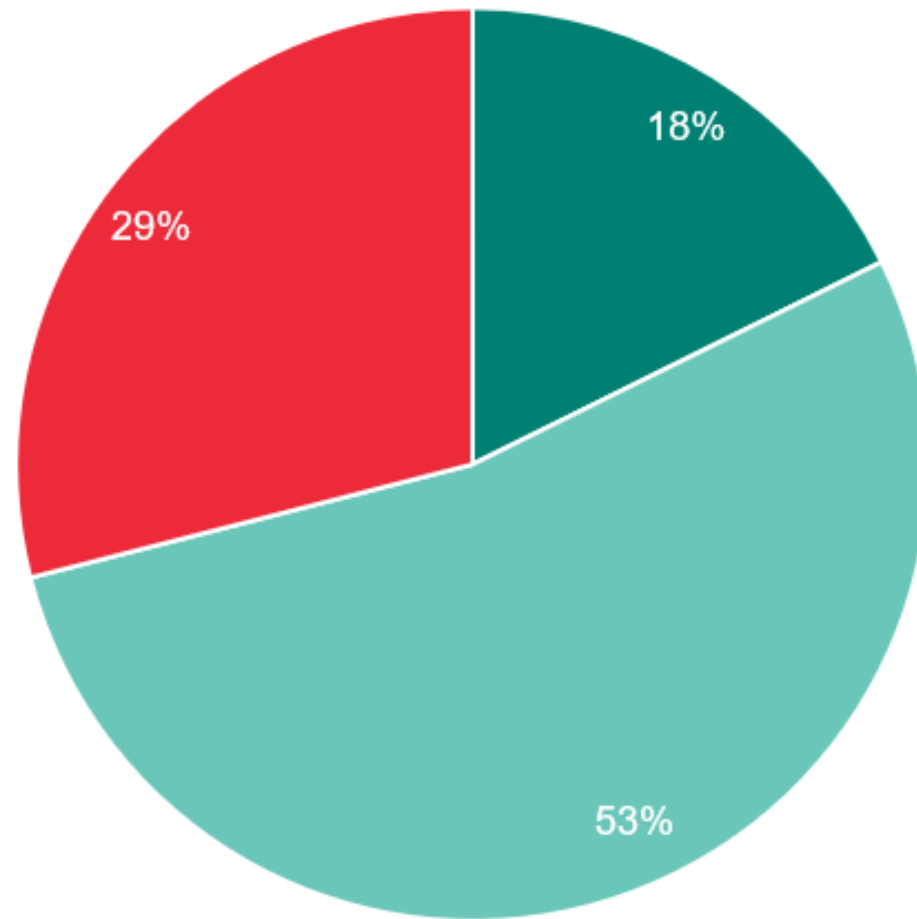


Figure 8. The annual amount of eco-logo certified and non-natural products purchased by the University of Winnipeg and Dexterra.

Campus Food and Dining



- Percentage of total annual food and beverage expenditures on products that are sustainably or ethically produced
- Percentage of total annual food and beverage expenditures on plant-based foods
- Percentage of total annual food and beverage expenditures on products not qualified by STARS



Food & Dining points

maximum 8 points



Waste Management

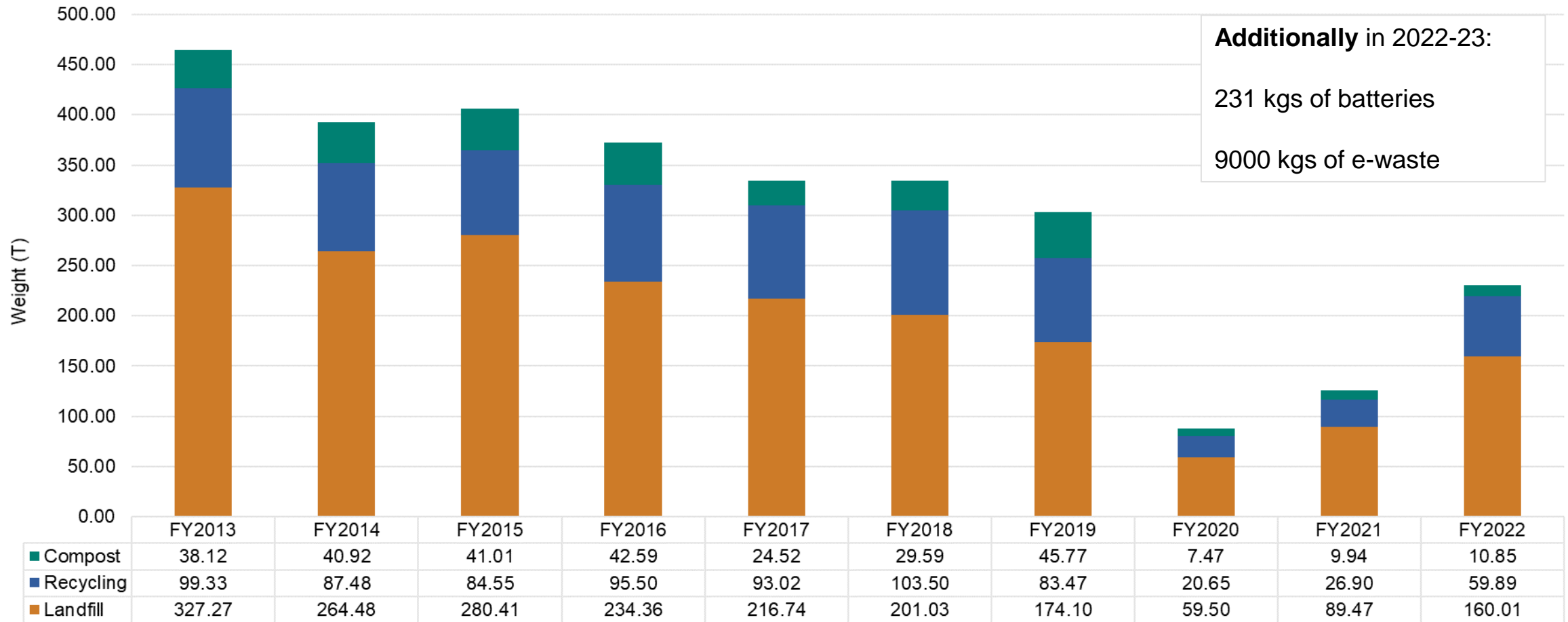


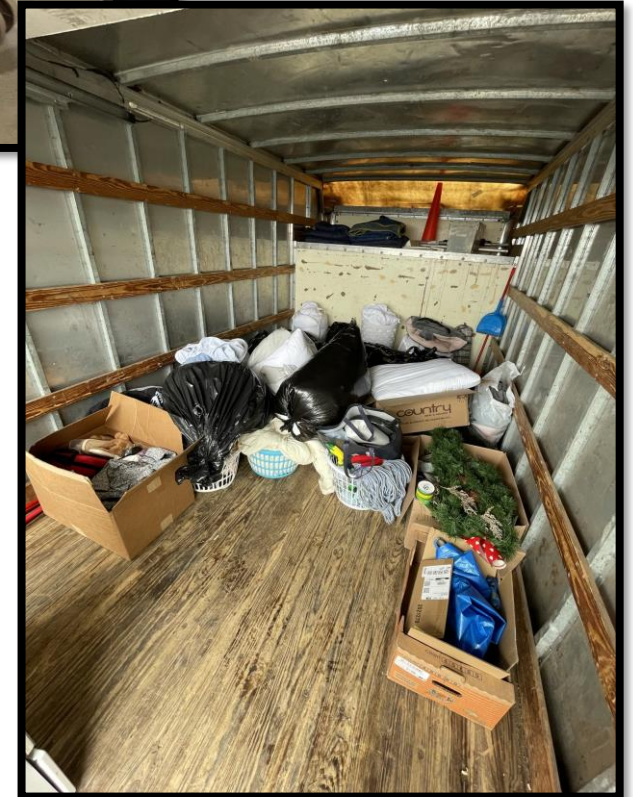
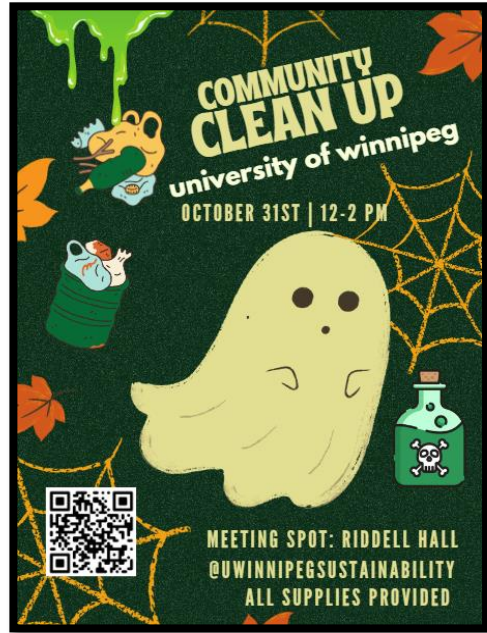
Figure 6. The annual compost, landfill, and recycling weights (kg) by proportion and diversion rate as reported by hauler.

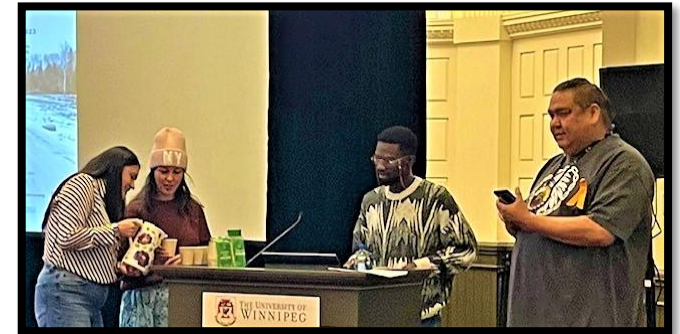
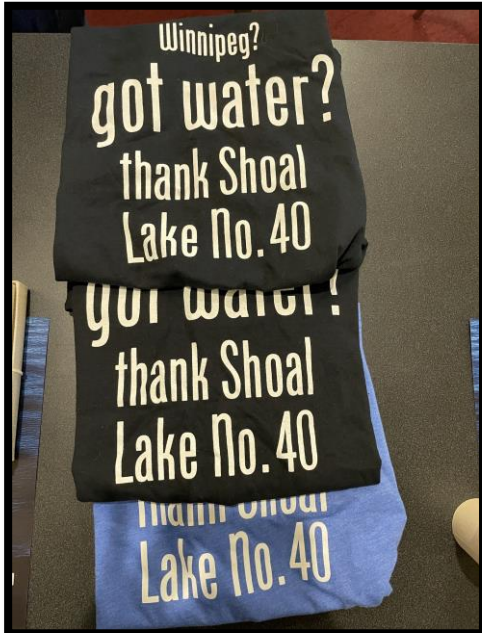
Social and Environmental Responsibility & Leadership

FY2022 Sustainability Report

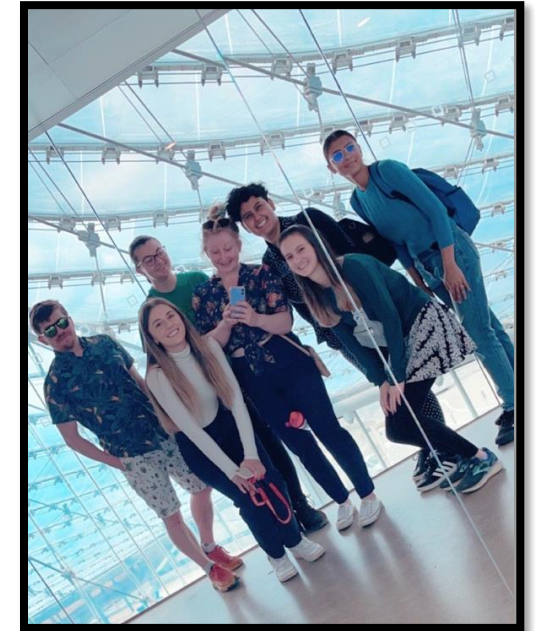


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Education and Engagement





Our Home on Native Land A NARRATIVE JOURNEY

PHASE 1 | **PHASE 2** | **PHASE 3** | **FUTURE PHASES**

PHASE 1: Northern Lakes Corridor

PHASE 2: James Ave. & King St. Transformation

PHASE 3: Art Production

Cooperatives for Building Propositions & Submissions



March 22, 2023

World WATER Day

Learn | Share | Act >>>

UWINNIPEG ACTS

- In Winnipeg we have access to safe drinking water, therefore bottled water is not sold on campus. Please make use of the water refill stations.
- In 2011, UWinipeg invested in a water retrofit that had an estimated savings of one million gallons of water per year.
- The RCFE grounds contain locally sourced, native species of plants and grasses. The selection was based on the ability of indigenous varieties to thrive in the existing soil, water, and solar environment.
- On main campus, the elm canopy has been intentionally protected and preserved. Invasive plants are cut back before they have the opportunity to seed out.
- The University's watering system has humidity sensors on it and is automated to reduce unnecessary watering with potable water. The campus landscape was designed using xeriscaping practices.

MY ACTION LIST

TO DO

6. Ensure clean water and sanitation for all

UN World Water Development Report

<https://www.unwater.org/publications/un-world-water-development-report>

<https://www.unwater.org/water-facts>

IISD WORKSHOP IISD WORKSHOP

Sustainability Certificate Series

Attend 4 workshops on topics in sustainability to get a certificate

SDG I & II

For Manitoba students

Wednesday, November 2, 2022 | 6:00 p.m. CDT
Tuesday, January 24, 2023 | 6:00 p.m. CDT

IISD WORKSHOP IISD WORKSHOP

Green Economies

For Manitoba students

Tuesday, March 7, 2023 | 6:00 p.m. CDT

IISD WORKSHOP IISD WORKSHOP

Policy Engagement

For Manitoba students

Thursday, September 29, 2022 | 6:00 p.m. CDT

Questions and Feedback

FY2022 Sustainability Report



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Taking out the Trash...

Reviewing the 2023 Internal Waste Audit



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What's a Waste Audit? Why do them?

Waste Audits are a valuable tool for sustainable facilities management, providing insight into a major piece of an institution's environmental footprint.

Generate a clear picture of waste disposal practices across campus, identifying opportunities for improving our waste reduction and landfill diversion systems.

The 2023 waste was the seventh waste audit conducted at UWinnipeg since 2006. The 2023 waste audit is intended to





Mon. Tues. Wed. Thurs.
 Fri. Sat. Sun.
 Time of day: _____

Location (check one box)

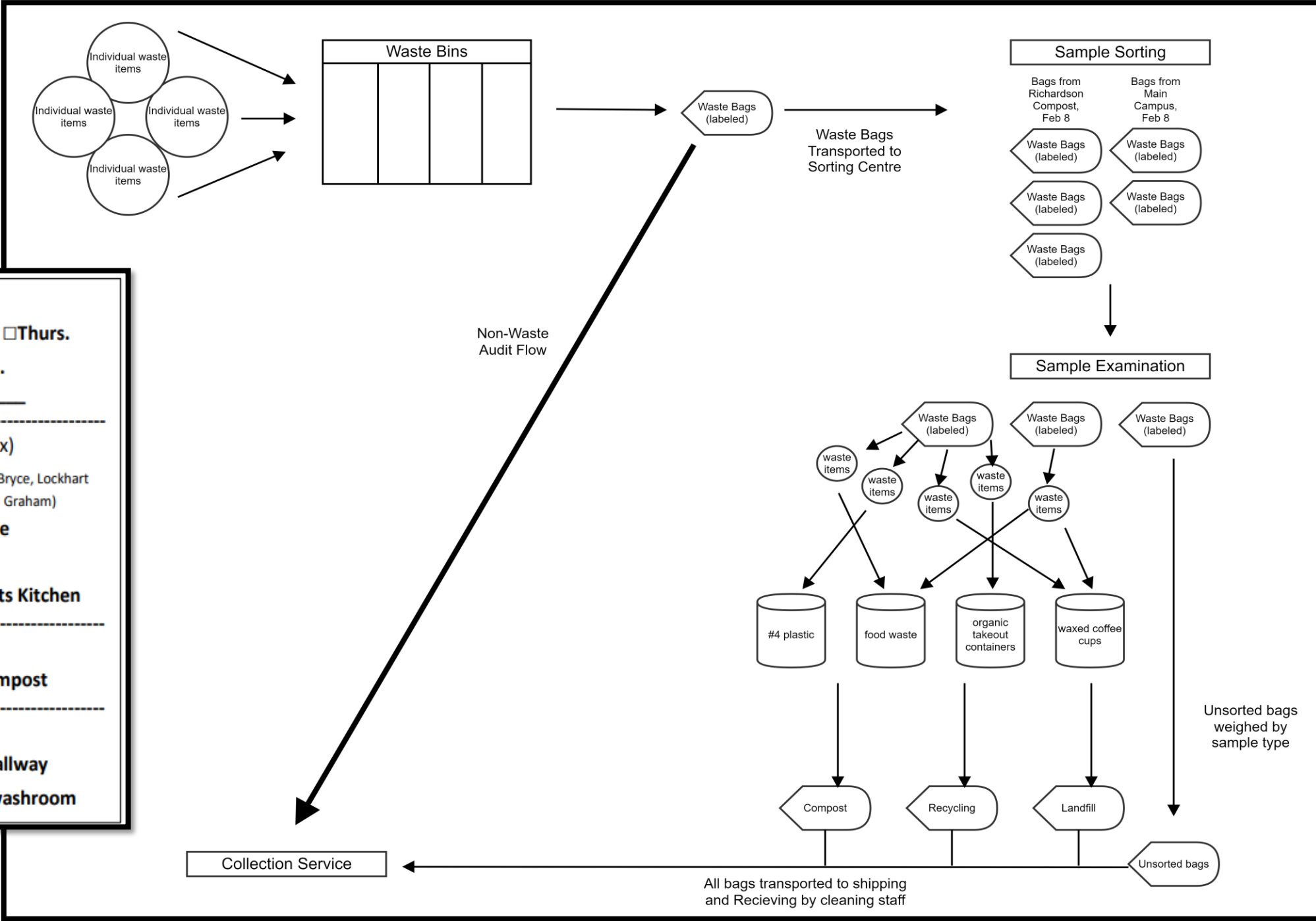
Main Campus (Centennial, Manitoba, Bryce, Lockhart Axworthy/Duck, Riddell, Ashdown, Leatherdale, Graham)
 RCFE | McFeetors Hall | Daycare
 Rice | AnX **Buhler**
 Pangaea Kitchen **Elements Kitchen**

Waste Bag Type:

garbage recycle compost

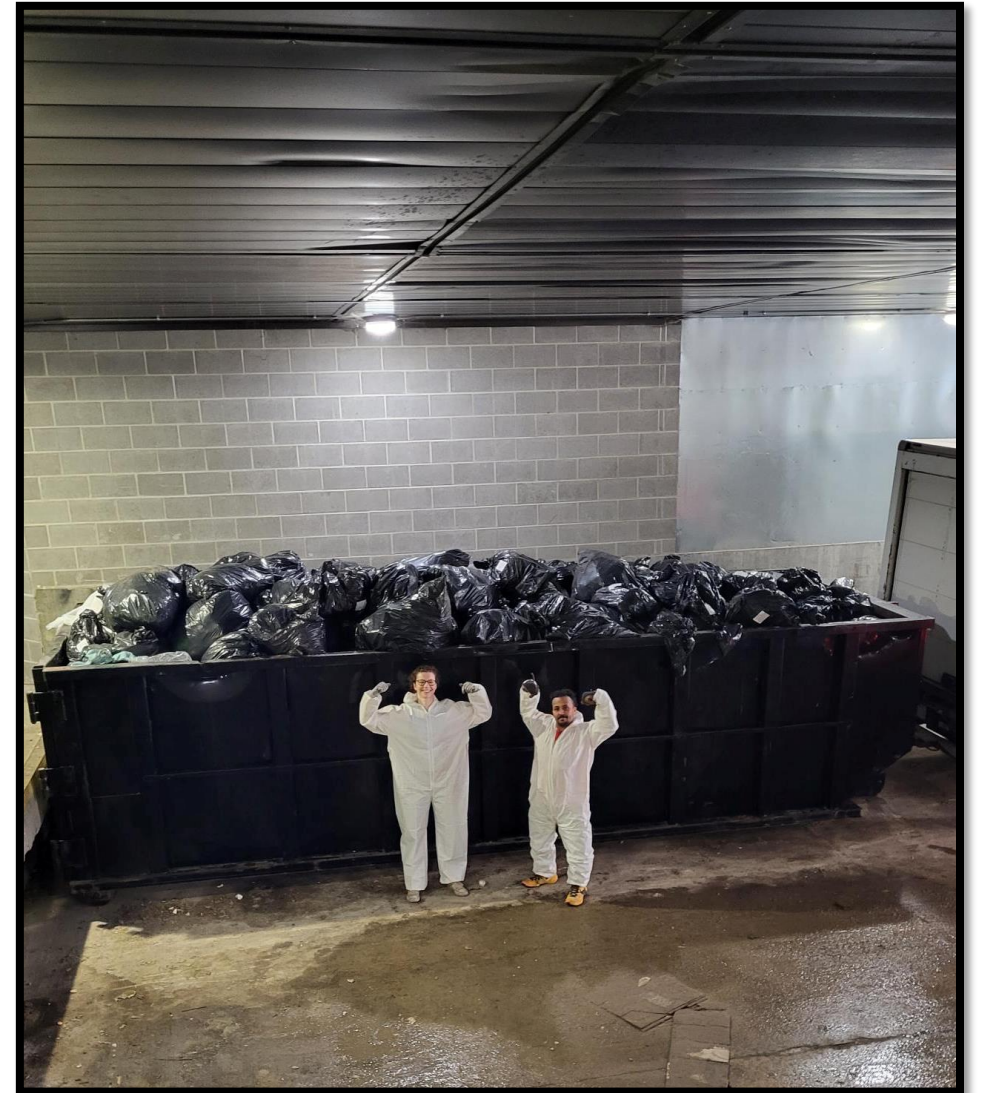
Bin Type:

multi-stream single hallway
 single Office single washroom



Findings: Campus-Wide Analysis

- UW generates 2034 kgs of waste per week
- Organics make up 40% of all waste material leaving campus, while recycling makes up 25%.
- Only 35% of waste generated on campus should be going to landfill. Yet, 59% of all campus waste goes to Brady Road Landfill
- 77% of landfill waste ends up in the landfill stream, and 70% of all recyclable waste produced on campus make is to the City's recycling facility.
- 64% of all organic waste generated on campus ends up in the landfill stream, with an additional 8% ending up in the recycling. Only 28% of all organic waste makes it into the organics collection stream.
- Just over half (55%) of all waste generated at UWinnipeg makes into the correct waste stream



Campus-Wide Waste Profile: The total waste leaving UWinnipeg broken down by material type



Material in Kg Collected



Material in Kg Delivered to Stream

Organic Waste



822.70 Kg
271.50 Kg

Recyclable Waste



507.44 Kg
559.30 Kg

Landfill Waste



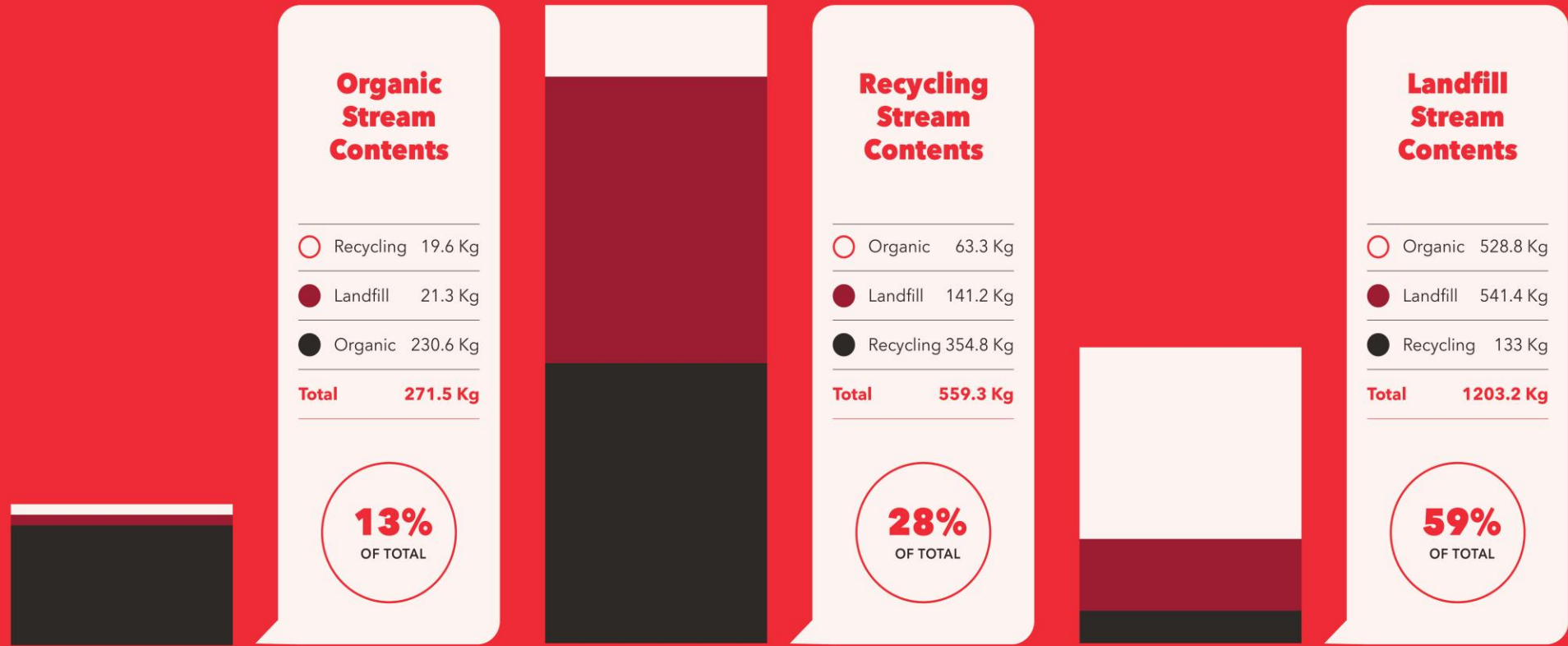
703.90 Kg
1203.20 Kg

Total Waste



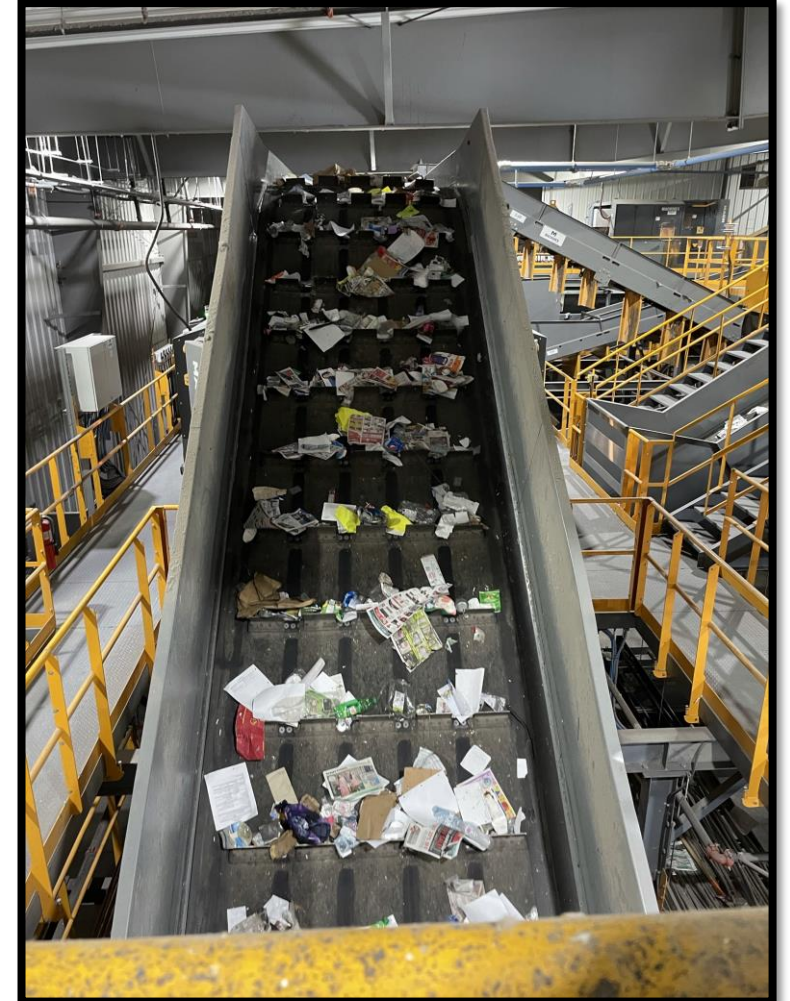
2061.63 Kg
2034.00 Kg

Waste Stream Volumes, Proper Diversion, and Contamination: Percentage breakdown of organic, recyclable, and landfill waste leaving campus in each waste stream



Findings: Stream Contamination

- Food waste accounts for 17% of all contamination found in the landfill stream
- General garbage accounts for 61% of contamination in recycling, and 39% of contamination in the organics stream
- At least 70% of all waste found in single stream bathroom bins is paper towels which could be composted



Largest Categories Sources of Contamination in Recycling Stream	
General Garbage	124.8
Food Waste	21.9
Compost Packaging	21.1
Paper Towels	7.8
Hazardous Waste	6.6
Paper Bags	5.7
Waxed Cups	5.3
Other	11.5

Largest Categories Sources of Contamination in Organics Stream	
General Garbage	16.0
Cardboard	5.6
Boxboard	3.5
Plastics #1	3.2
Waxed Cups	2.5
Other	2.4
Plastics #5	2.3
Plastic Cutlery	2.2
Mixed Paper	2.2
Milk Carton Containers	1.0

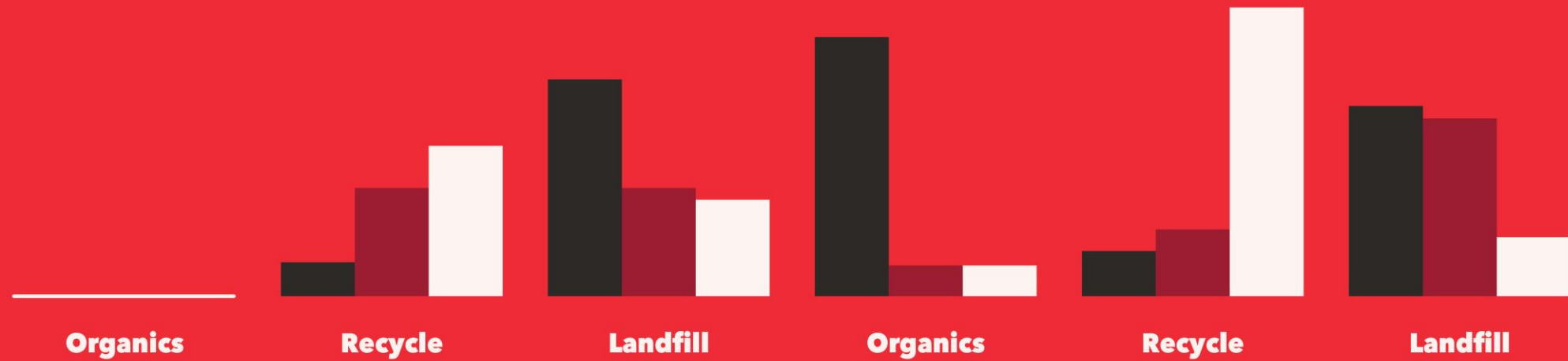
Largest Categories Sources of Contamination in Landfill Stream	
Food Waste	221.9
Paper Towels	95.5
Compost Packaging	66.5
Mixed Paper	27.2
Boxboard	23.9
Paper Bags	23.2
Plastics #1	20.1
Plastics #7 PLA	18.6
Other	15.9
Plastics #5	15.0
Cardboard	14.9
Metal Beverage Containers	10.7
Tetra Pak Containers	9.8

Findings:

Single-Stream Vs Multi-Stream Bins

- Single stream recycling bins found in classrooms, offices and hallways contained 39% landfill material and 12% organic material.
- 167kgs of organic waste accumulated in single stream landfill and recycling waste bins found in classrooms, offices and hallways. This means that each year single stream bins divert over 6000 kgs of biodegradable materials from our organics stream, preventing this organic matter from becoming compost.
- Single stream landfill bins consist of 17% recyclable waste, and 38% organic waste.
- 39% of all waste found single stream recycling bins is waste that should be going to Landfill.
- Multi-stream bins increase the likelihood of the correct disposal of organic waste by 53% over single stream bins. When multi-stream bins are used, correct disposal increases by 23% for recyclable materials, and 21% of landfill waste.

Single Stream vs Multi-Stream Bins: Comparing rates of proper disposal and contamination



Single Stream Bins – Correct disposal rate 54.7%

○ Recycling	0 Kg	○ Recycling	100.8 Kg	○ Recycling	64.4 Kg
● Landfill	0 Kg	● Landfill	72.8 Kg	● Landfill	73.4 Kg
● Organic	0 Kg	● Organic	22.8 Kg	● Organic	143.7 Kg
Total	166.5 Kg	Total	252.1 Kg	Total	165.8 Kg

Multi Stream Bins – Correct disposal rate 77.2%

○ Recycling	19.2 Kg	○ Recycling	194.6 Kg	○ Recycling	38.3 Kg
● Landfill	19.6 Kg	● Landfill	44.4 Kg	● Landfill	119.2 Kg
● Organic	174.3 Kg	● Organic	27.7 Kg	● Organic	128.6 Kg
Total	330.6 Kg	Total	252.1 Kg	Total	183.2 Kg

Recommendations

- Remove single stream bins from all areas on campus
- Continue investing in our multi-stream bin infrastructure (more bins everywhere with and better messaging)
- Support and promote alternative recycling streams (e-waste, ink, batteries, pens, masks, gloves)
- Outreach and Education for campus community members
- Capture paper products from washrooms?



Facilities Update:

Net Zero Building and Sustainable Design



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Net Zero Buildings and Sustainable Design

- Net Zero vs. Net Zero Ready Buildings
- Campus Energy Planning
- Sparling Hall Replacement
 - 'Student Success Centre' Opportunities



Net Zero Buildings and Sustainable Design

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Net Zero Buildings and Sustainable Design

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- **Sparling Hall Replacement**
 - **'Student Success Centre' Opportunities**



Facilities Update:

Sustainable Landscaping



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HTFC and RCFE



Signage and Restoration of the Langside Learning Garden




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Langside Learning Garden

In Partnership with the Community

The Langside Learning Garden is a collaborative and community-based research project led by the University of Winnipeg and the Spence Neighbourhood Association. The goals of the project are to model sustainable urban gardening practices and meaningful relationships between the University and the Spence neighbourhood.

We acknowledge that the garden is located on Treaty One Territory, the Original Lands of the Anishinaabeg, Innu, Assinibew, Dakota, Nakota, and Ojibwe peoples. These lands are the homeland of the Red River Métis. We acknowledge that our water is sourced from Shoal Lake 40 First Nation.

We gratefully acknowledge Val Vint, Aandog Mukkwa and by their assistance, the many Rural Anishinaabe teachers like the late Roger Rivest, who informed the project. They shared the Anishinaabemowin names and English descriptions of the plants in this garden. As Anishinaabemowin is a descriptive language, the names of plants are more like teaching tools where traditionally, as plants are described to weed their uses and all sorts of other information. Only certain individuals would have a very specialized knowledge of plants and their uses whereas, most people today know the common names. Thus, some plants that are similar but different species may have the same name in Anishinaabemowin.

To develop the garden, a project team was created, composed of OMA staff and University faculty, staff, and students. In designing the garden, the team consulted with Spence Neighbourhood residents and participants of several gardening workshops and community events. Safety, accessibility, biodiversity, recreational and educational, education, and low maintenance were key aspects that the community wanted incorporated into the design of the garden.

• aaniin • tawow • tansi • wotziye • peehtikwa • iyuskin • kuwa • tunngasugit • bienvenue • welcome •
 Make sure to take a look around the garden for our plant translations into Anishinaabemowin.



winnipeg.ca/ig

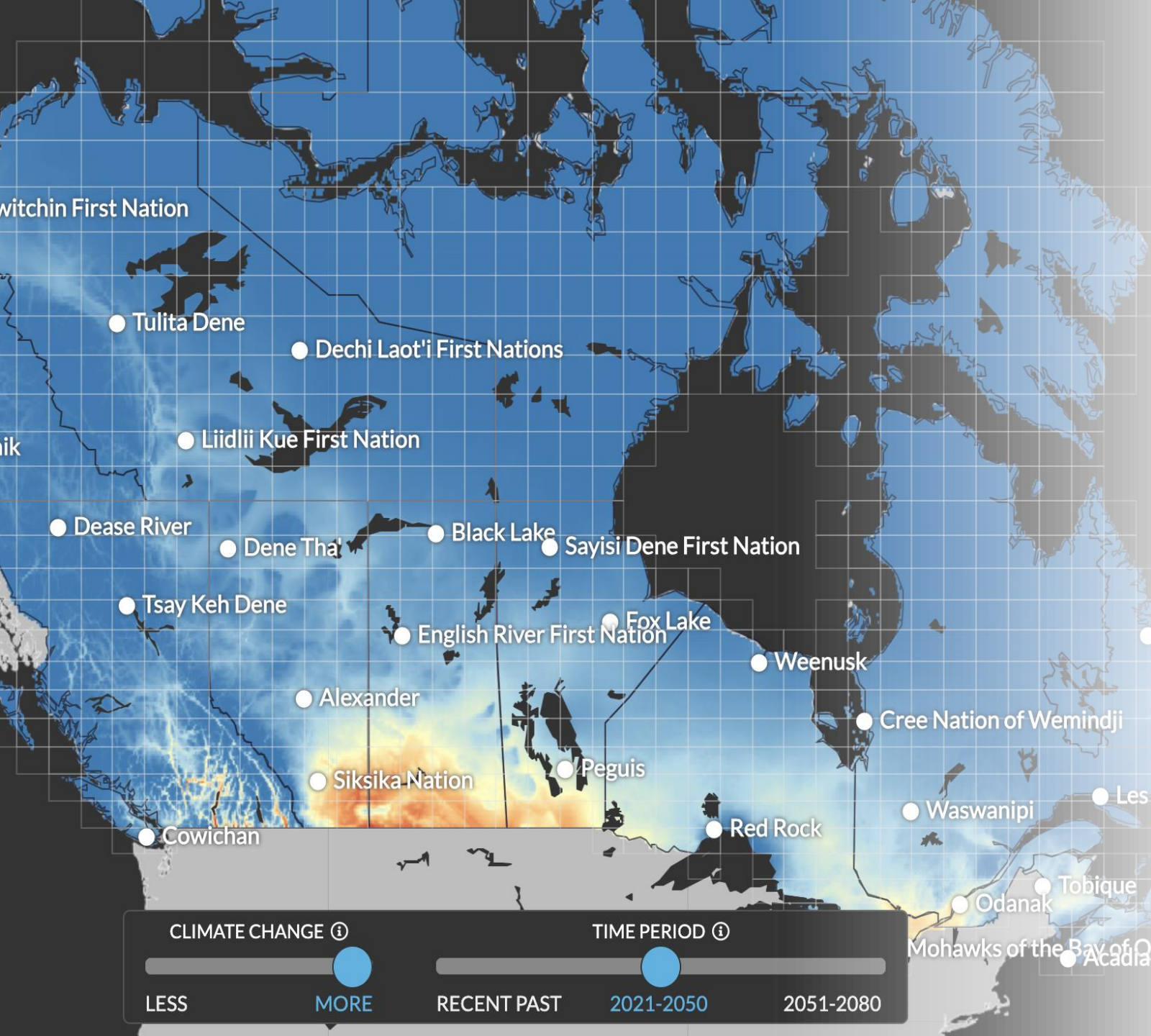

Research, Academics and Knowledge Mobilization

Prairie Climate Centre Update; CSO partnerships



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Prairie Climate Centre Update



Ongoing Projects

- Climate change Risk and Vulnerability Assessment
 - First Nations Infrastructure: Climate, Culture, and Community-based Decision-making Project
- Climate Change Adaptation Planning
 - Liidlii Kue First Nation
- Climate Data, Information and Knowledge Translation
- Climate Change and Public Health

Prairie Climate Centre Update

Internal UW Initiatives

Past

- Intra-UW research networking series RO/PCC/CSO
 - Intersecting Health and Wellness
 - Outside Status Quo Methodologies and Practices
 - Climate Justice and Sustainability

Future

- Disability Justice and Climate Change PCC/RO
 - Film Launch with Community partners, Chief Public Health Office
- Collaborations with CSO



Strategic Planning for Sustainability

What does our next round of consultation and our next sustainability strategy look like?



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From the Sustainability Policy...



Principles

Through its sustainability management process, the University seeks to:

1. Fulfill its mission and goals as an education and research institution in a manner that promotes sustainability both within and beyond the University.
2. Equip students with the skills, knowledge, and desire to actively contribute to a more sustainable world.
3. Encourage scholarship and knowledge mobilization that addresses local and global sustainability challenges.
4. Support academic and research programs, offer services and carry on activities in such a way as to:
 - a. reduce consumption of non-renewable resources and the wastes generated from them;
 - b. use all renewable materials and energy resources at rates equal to, or lower than, their natural rates of deposition, reformation or reproduction in the ecosphere;
 - c. reduce and eventually eliminate the toxicity of these operations to the productivity and diversity of the ecosphere; and

Governance & Accountability

Responsibilities related to sustainability are distributed throughout the institution. The University will develop, publish and make available to the public an institutional sustainability strategy, approximately every five years on a schedule that is aligned with other institutional planning processes.

These strategies shall include:

- Key goals to focus sustainability efforts aligned with this policy;
- Specific, measurable targets for each goal and assignment of responsibility to the principal individuals with accountabilities associated with achieving each target;
- A list of measurement indicators that will be used to assess progress against the targets;
- An implementation plan for the institutional strategy;
- Terms of reference and membership criteria for the Campus Sustainability Council and any other committees required to implement the strategy; and
- Highlights of the annual sustainability performance report will be presented to the Board of Regents annually.

The University shall publish and make available to the public an annual sustainability performance report that shall provide updates on progress made on goals and targets found in the institutional sustainability strategy

Outstanding Business



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Questions

Thanks for coming!



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