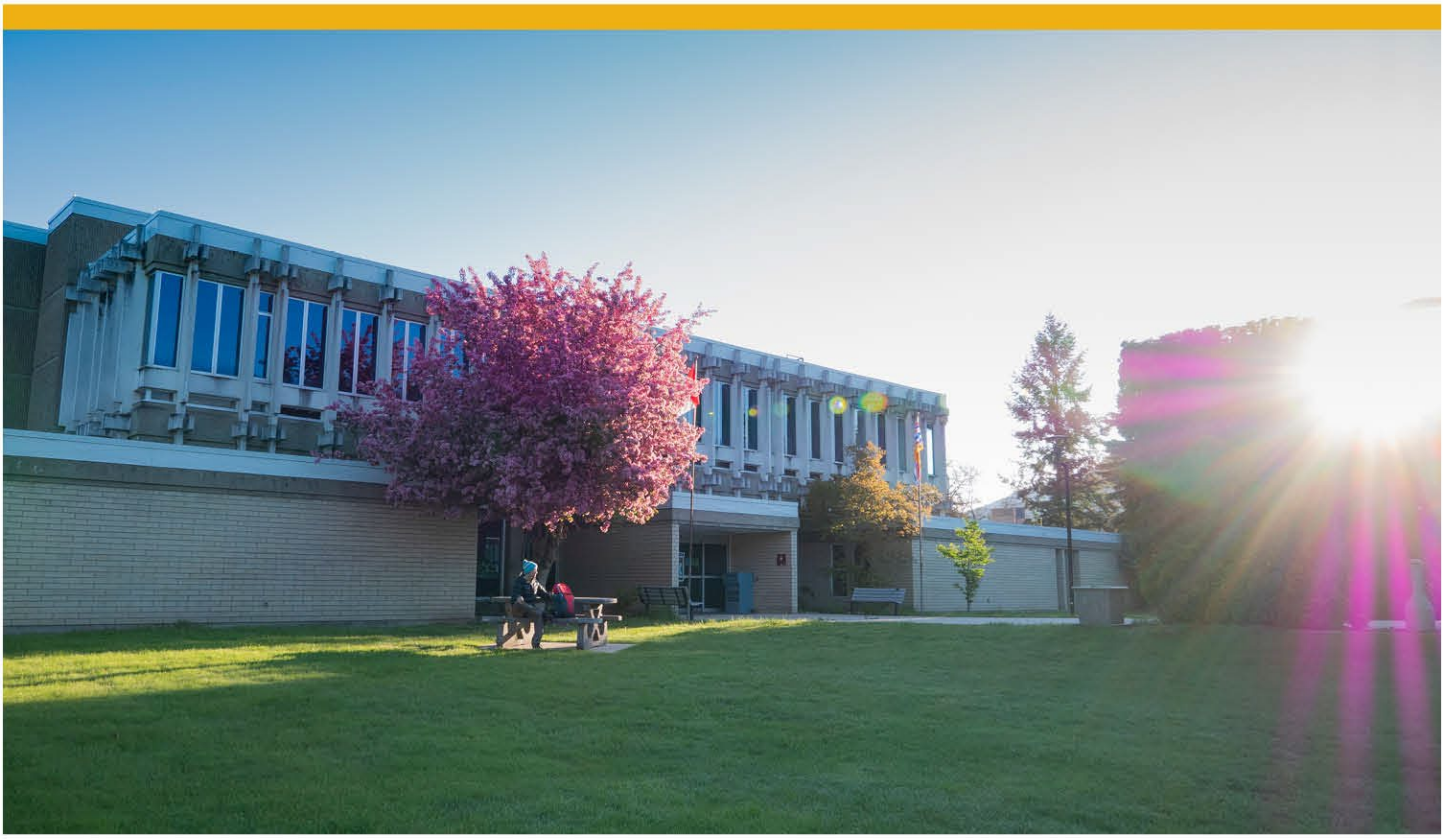
2023 PSO CLIMATE CHANGE ACCOUNTABILITY REPORT



Selkirk College

Legislative Reporting Requirements

This PSO Climate Change Accountability Report for the period of January 1, 2023, to December 31-2023 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2023 to minimize our GHG emissions, and our plans to continue reducing emissions in 2024 and beyond.

Emission Reductions: Actions & Plans

STATIONARY SOURCES

Selkirk College does not currently have a formal strategy for reducing greenhouse gas emissions from stationary sources. However, numerous actions were undertaken in 2023, and are planned for 2024 and beyond, to reduce emissions from stationary sources including upgrades to lighting, buildings, and energy-intensive equipment and appliances, as well as implementing green building practices and standards. In 2024 we will begin exploring options for developing an emissions reduction plan.

Upgrading existing fluorescent lighting to LED fixtures and the installation of occupancy sensors are ongoing at multiple campuses. In 2023, lighting upgrades were completed within numerous corridors and classrooms at Castlegar Campus, and within the Fine Woodworking shop and two classrooms at Silver King Campus. All classroom upgrades in 2023 included lighting upgrades to LED. Lighting upgrades will continue in 2024 and beyond with a full-campus conversion planned at Castlegar Campus and multiple corridor and targeted classroom upgrades at Trail campus.

Solar shades were installed within the Castlegar Campus Library which help regulate temperatures in both the summer and winter seasons. The Silver King Campus classroom building was upgraded with new automatic doors which will reduce heat loss. Door replacements are planned for 2024 at Silver King Campus' North and South Trades buildings, Trail Campus at multiple entrances, and at Castlegar Campus at multiple entrances. Roof replacements are also planned for Silver King Campus' North and South Trades buildings which will include new insulation, Castlegar Campus' A-wing, B-wing, administration building, gymnasium and cafeteria, and Tenth Street campus' Mary Hall.

Numerous energy-intensive appliances and mechanical equipment were replaced in 2023. At Castlegar student housing, two hot water tanks were replaced with 95% efficient tanks. In addition, two gas furnaces were replaced with high-efficiency dual-fuel heat pumps with a SEER rating of 20. Two natural gas furnaces were replaced with high efficiency heat pumps at the Castlegar Campus daycare center. Tenth Street Campus student housing received new washing and drying machines. A rooftop unit was replaced at the Tenth Street Campus Mary Hall building, and another rooftop unit was replaced at the

Castlegar Campus facilities building. Numerous energy intensive appliances and mechanical equipment upgrades are planned to be replaced in 2024 including rooftop unit coil replacements for Tenth Street Mary Hall building, and Silver King North and South Trades buildings, a rooftop air handling unit replacement for the Castlegar Campus Gym, two new rooftop units for the Castlegar Campus daycare, and new washing and drying machines for Castlegar student housing. Funds have also been set aside for various HVAC upgrades that may be required.

Two new student housing buildings, one at Castlegar Campus and one at Silver King Campus, were constructed in 2023 which meet Step 4 of the BC Energy Step Code and shadow LEED Gold standards. Both buildings contain the infrastructure and conduits to install roof-mounted solar panels.

MOBILE SOURCES (E.G. FLEET VEHICLES, OFF-ROAD/PORTABLE EQUIPMENT)

Selkirk College did not acquire any new zero-emissions vehicles in 2023. The installation of two level 2 charging stations at Castlegar Campus was completed as part of the Accelerate Kootenays 2.0 funding program in 2023. An additional four double-head level 2 charging stations were purchased and will be installed in 2024: three for Castlegar Campus, and one for Silver King Campus. Both new student housing buildings at Castlegar and Silver King campuses include infrastructure for five double-head level 2 electric vehicle charging stations. in 2023 our Facilities team began work on an electric bicycle sign-out program for our student housing buildings at Castlegar, Tenth Street, and Silver King campuses. This project will be fully implemented in 2024. The project includes the procurement of 14 electric bicycles (six for Castlegar, four for Tenth Street, four for Silver King). This project will reduce transportation barriers for students living in student housing and offer an emission free transportation option that supports student health and wellbeing.

Selkirk College has committed in its Sustainability Plan to emphasize electric vehicle options when purchasing future fleet vehicles. As more electric vehicle models become available, the feasibility of choosing vehicles that meet our operational needs increases. Our Facilities team aims to combine trips whenever possible and uses our Chevy Bolt electric vehicle whenever appropriate. In 2024, we are working to identify and overcome the unique barriers we face as it pertains to fleet electrification.

A commuter survey was conducted in 2023 to better understand baseline emissions data associated with employee and student commuting. This data is helping to inform planning and advocacy around sustainable transportation. Selkirk College has committed in its Sustainability Plan to develop an offsetting program for business travel by 2027.

PAPER CONSUMPTION

Selkirk College aims to reduce emissions from paper procurement by 50% below 2010 levels by 2027, as outlined in its Sustainability Plan. The College has switched from using standard 8.5 x 11 white paper to Sugar Sheet paper, which is derived from waste fibre produced during sugar cane processing. Sugar cane and bagasse are a renewable resource that can be harvested 2-3 times per year, making sugar sheet paper a "forest free" alternative. Every two boxes of sugar sheet paper save one tree and 29.2 kg of greenhouse gas emissions. It is also elemental chlorine free and 100% recyclable. Selkirk College continues to transition paper-based procedures to digital ones, resulting in a decrease in paper consumption. Our Paper Usage policy procedure under our Environmental Sustainability Policy outlines best practices for reducing paper usage, sourcing paper from more sustainable sources, and recycling. In 2024/25, Selkirk College will initiate plans to reduce the number of printers on all campuses to discourage printing.

2023 GHG Emissions and Offsets Summary Table

GHG emissions for the period of January 1–December 31, 2023

Total BioCO_2	54.1
Total Emissions (tCO_2e)	1,118
Total Offsets (tCO_2e)	1,064
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO_2e)	1.03
Grand Total Offsets for the 2023 Reporting Year	
Grand Total Offsets to be Retired for 2023 Reporting Year (tCO_2e)	1,065
Offset Investment ($)	26,625

RETIREMENT OF OFFSETS

In accordance with the requirements of the Climate Change Accountability Act and the Carbon Neutral Government Regulation, Selkirk College (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2023 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (the Ministry) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to $25 per tonne of offsets retired on its behalf plus GST.

Public Sector Climate Leadership

CLIMATE RISK MANAGEMENT

Selkirk College has yet to conduct a formal climate risk assessment to determine the extent of the organization's exposure to climate-related risks. However, climate-related risks including wildfire, heat, drought, and flooding are included in campus-specific risk assessments for our updated Emergency Plan that is expected to be released in early 2025. Our Facilities and Health & Safety team is working closely with the Ministry of Emergency Management and Climate Readiness, local governments, and other agencies to ensure our Emergency Plan reflects risks associated with changing climate conditions locally. The College is also receiving direction from the provincial and federal governments on developing new legislation and regulations pertaining to climate risk readiness.

Selkirk College is making incremental changes to its operations and infrastructure in preparation for climate impacts. Fire smart assessments were completed at Castlegar Campus in early 2023 and our Facilities team is working to address concerns raised through this assessment, including exploring landscaping and irrigation changes to increase resilience to fire and drought. Two fire hydrants were installed along the new water line as part of the 2023/24 Selkirk College Waterline Project. Students in our Forest Technology program work on ladder fuel reductions within the forests surrounding our Castlegar Campus and in partnership with the City of Castlegar to reduce ladder fuels surrounding the municipality. Back-up generators are in place to ensure that emergency lighting and IT infrastructure remain operational during power outages. The new student housing buildings at Castlegar and Silver King Campuses meet Step 4 of the BC Energy Step Code and shadow LEED gold standards. All future building construction will follow the new CleanBC Requirements for the Government of British Columbia's Environmental, Social and Governance Framework for Capital.

Selkirk College is making procedural changes in response to impacts driven by climate change and is collaborating and coordinating with local communities on regional emergency preparedness. Our Health and Safety team is working on training and tabletop exercises to increase staff awareness and

emergency response to risks including those associated with heat, drought, fire, and floods. Selkirk College participates in the Province of BC's Annual Emergency Preparedness Week, and the Ministry of Emergency Management and Climate Readiness' Seasonal Preparedness Day. Our Health and Safety Team is also working on developing policies and procedures regarding evacuations and school closures. Selkirk College is working with local communities to improve regional emergency preparedness and planning, including working on designating Selkirk College facilities as secondary centers for displaced evacuees.

Selkirk College utilizes PUMA Utility Monitoring by Prism Engineering to track energy usage and greenhouse gas emissions from stationary sources. PUMA is a web-based utility accounting software and a service developed to meet the unique monitoring needs of its clients. PUMA is a user-friendly software system that delivers clear, customized reports and is supported by the services of Prism Engineering's energy expertise. PUMA helps interpret utility data, adjusts for weather, and can identify problems sooner so that corrective action can be taken.

OTHER SUSTAINABILITY INITIATIVES

Selkirk College is committed to integrating Sustainability throughout academics, applied research, engagement, operations, planning, and administration and this is outlined within the college's Sustainability Plan that was published in 2023. We support students and employees to become informed citizens, equipped with the knowledge, skills, values, and attitudes to bring about necessary global transformations.

Selkirk College was the first college in Canada to sign the United Nation's Sustainable Development Goals Accord, the university and college's collective response to the United Nations Sustainable Development Goals (SDGs). The SDG framework is being embedded into all areas of the college and is helping people within all departments to understand how their work contributes to building a more sustainable future. Selkirk College is a proud member of the Association for the Advancement of Sustainability in Higher Education (AASHE) and participates in the Sustainability Tracking, Assessment & Rating System (STARS). STARS is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. Selkirk College was awarded its third Silver STARS rating in 2023. In addition, Selkirk College is a signatory of the Global Climate Letter and a partner to the Race to Zero for universities and colleges. We have pledged to achieve net zero by 2030.

Considering our goals and commitments under the SDG Accord, the AASHE STARS reporting framework, and the Race to Zero pledge, the College is consistently working within all areas of academics, operations, engagement, planning, and administration to advance sustainability and lesson our footprint. Some additional initiatives undertaken in 2023 are listed below:

- Expanding Organic Waste Diversion to two additional campuses using the industrial FoodCycler
- Developing best practices for sustainable procurement and supplier code of conduct

- Upgrading outdoor classroom space at Castlegar Campus
- Upgrading our comprehensive recycling system (paper, cardboard, comingled containers, glass, flexible plastic, electronics, and batteries)
- Studying student knowledge and perceptions of solid waste disposal
- Ditching disposable to-go containers (complete) and to-go mugs (underway)
- Increasing sustainability integration across the curriculum
- Assessing sustainability literacy among staff and student populations
- Upgrading plumbing within four washrooms at Castlegar Campus
- Piloting liquified aqueous ozone technology in custodial services
- Engaging and educating staff, students, and community via workshops, TEDx talks, presentations, social media, and general outreach.

SUCCESS STORIES

Building off a partnership with the City of Nelson's pre-treated organics pilot program, the College is testing a new technology to divert organic waste - the FoodCycler. The FoodCycler is an organic waste pre-treatment appliance that dehydrates and grinds food waste, reducing its volume by up to 90%. A dry, sterile, nutrient rich, and shelf-stable soil amendment that can be easily packaged, stored, or transported is produced. In 2022, Selkirk College partnered with the City of Nelson to begin using a commercial ES150 FoodCycler within the culinary kitchen at Tenth Street campus. As part of College and Institutes Canada’s Impact Climate Campus Living Labs project, Selkirk College purchased two commercial FoodCyclers in 2023, an ES150 for Castlegar Campus and an ES80 for Silver King Campus. Campus-wide organic waste diversion is now rolling out at all three campuses, and the dehydrated food waste is being given to local farms and used as a soil amendment or compost additive,

contributing to a circular economy. This program reduces greenhouse gas emissions by diverting food waste from ending up in landfill, which is a major contributor to methane emissions. Through this program, we expect to divert about 5.25 tonnes of food waste annually, or around 2.625 tonnes of Co2e.

EXECUTIVE SIGN-OFF

Lareena Rilkoff	May 29, 2024
Signature	**Date**
Lareena Rilkoff	Interim Vice President College Services, CFO
Name	**Title**