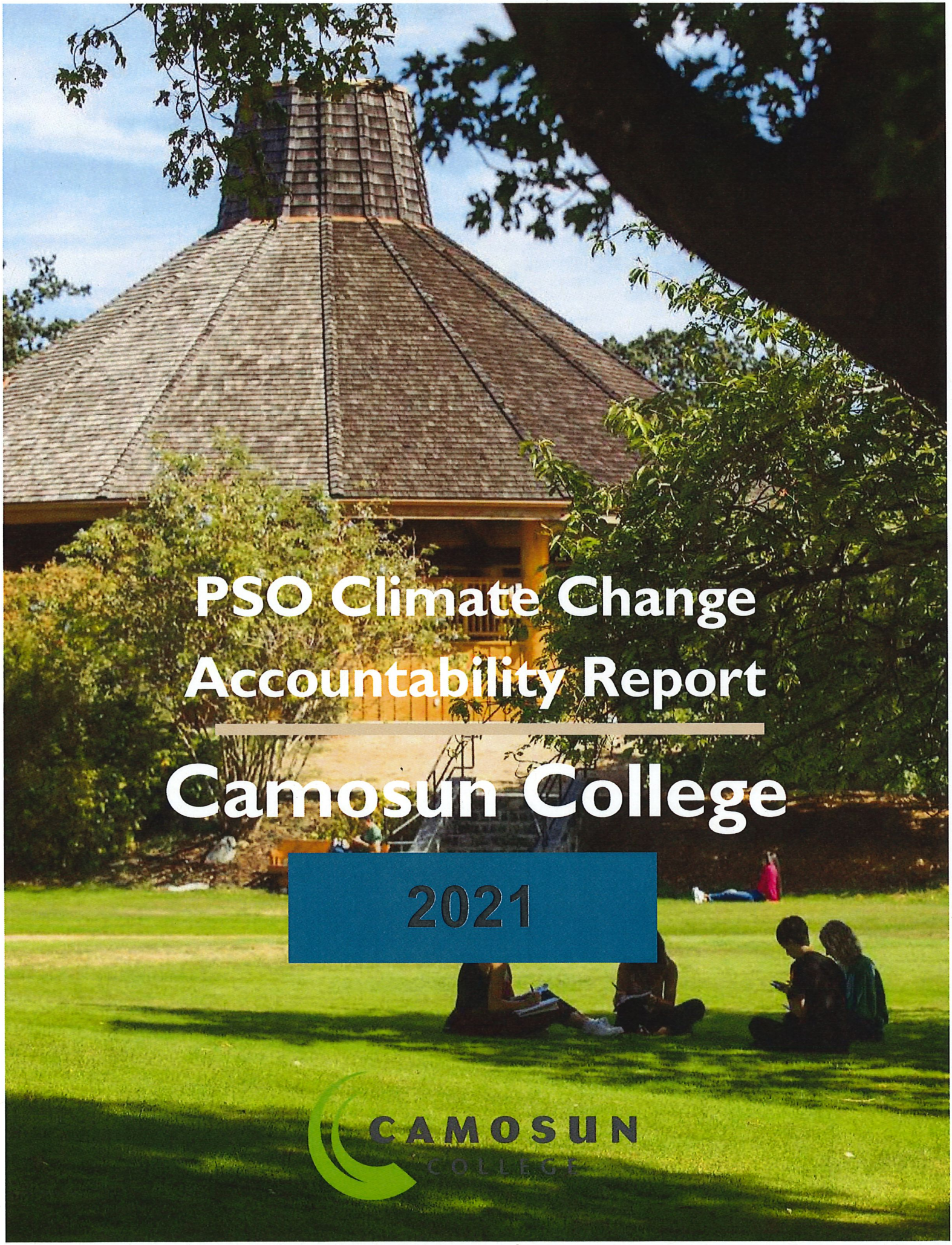
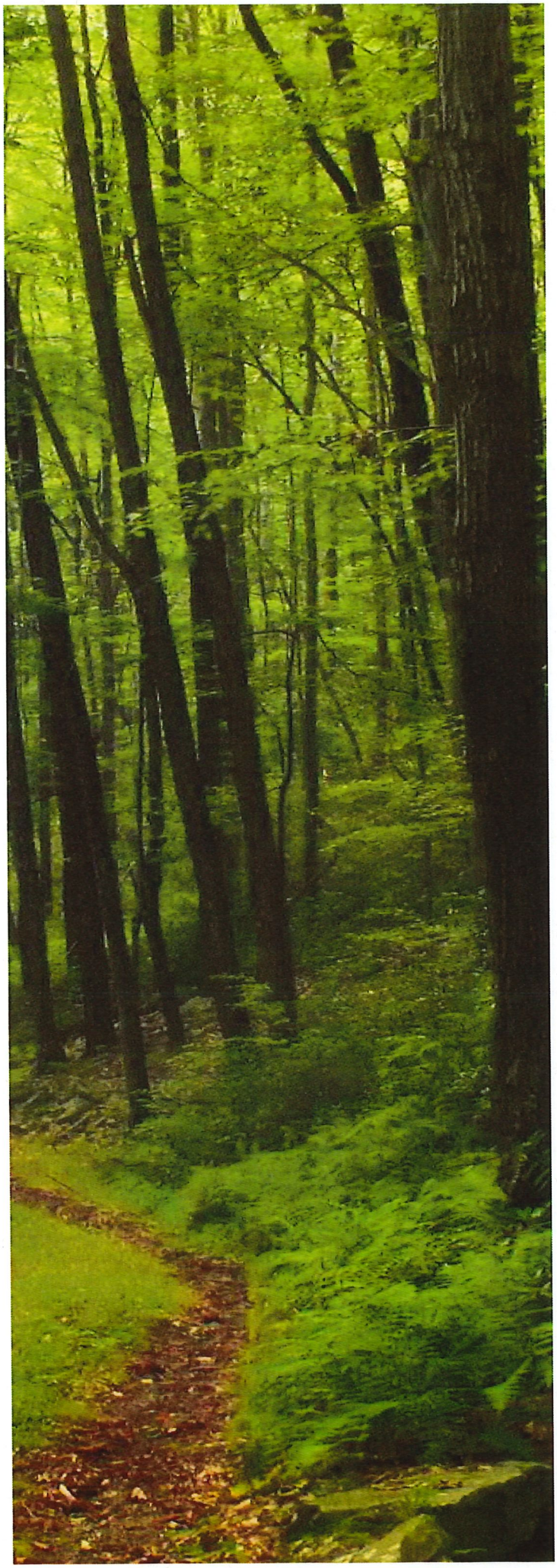


PSO Climate Change Accountability Report

Camosun College

2021

CAMOSUN COLLEGE



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DECLARATION STATEMENT

This PSO Climate Change Accountability Report for the period January 1, 2021 to December 31, 2021 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2021 to reduce our GHG emissions, and our plans to continue reducing emissions in 2022 and beyond.

EMISSIONS REDUCTION ACTIONS

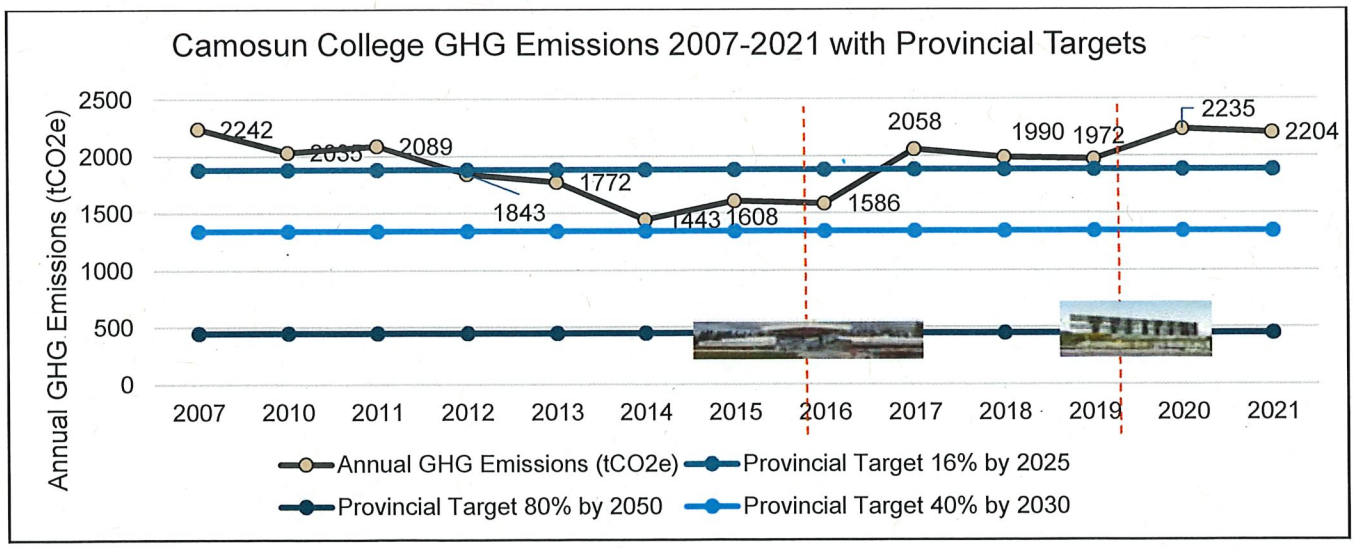
Overview

The following table and chart illustrates Camosun's GHG emissions since 2010. In 2021, the College experienced a small decrease in overall emissions by 1.4 % from 2020 levels. However, overall there has been an increase in emissions from 2010 levels by 10%.

The chart below recognizes the timeline of Camosun introducing two major buildings: the Centre for Trades Education and Innovation in 2016, and the Centre for Health and Wellness in 2019-2020, which shows the impact on the college's greenhouse gas (GHG) emissions against the B.C. Provincial Targets. Emissions for buildings in 2021, while lower than 2020 (-3%), are higher compared to all previous years. This is due to the operation of the new Alex and Jo Campbell Centre for Health and Wellness (CHW) as Camosun welcomed the community back to in person classes through reopening phases of the Covid-19 pandemic.

GHG Emission Source Data (2010-2021) tCO_2e												
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Buildings	1932	1978	1758	1671	1359	1529	1511	1990	1923	1905	2205*	2138
Fleet	28	39	28	24	12	14	8	7	11	14	22	53**
Paper	75	72	57	77	72	65	67	61	56	53	8	13
Total Emissions	2035	2089	1843	1772	1443	1608	1586	2058	1990	1972	2235	2204

**Note: Change in 2020 numbers due to a retroactive change to electricity emission factors. **Note: Data error in CGRT tool. Offset adjustment will appear in 2022 calculation.*



Stationary Sources (e.g. buildings, power generation)

Camosun College continued to make efforts to minimize emissions in stationary sources throughout 2021 with the following projects:

WILNA THOMAS RENEWAL PROJECT

The Wilna Thomas (WT) renewal project is an extensive renovation (started 2021) on Camosun's Lansdowne campus. The WT building contains two floors, with renovation scope representing 2381 m2 of interior space, in addition to exterior landscaping. The renovated space use-types include washrooms, student gathering spaces, classrooms, maker spaces, collaboration and meeting rooms, quiet rooms and cultural gathering spaces. As part of the renovation, mechanical and electrical systems feature several energy-efficient upgrades.

During the planning stages, Camosun worked with consultants to develop Energy Modeling and a Social Sustainability Framework.

Energy Modeling:

An energy assessment of the renovation at Wilna Thomas was conducted as part of this project. The primary intent was to provide Camosun with a before and after energy comparison and GHG emission performance of the building. In addition, the assessment provided qualitative and quantitative feedback for future buildings and renovations.

Overall, from this assessment, the renovations of WT will result in **26% overall energy savings, 23% emissions savings, and 28% energy cost savings**. The majority of the energy cost savings are attributed to the improvements in lighting design. The majority of the GHG emissions savings are attributed to improvement in space heating and ventilation that reduces the use of carbon-intense fossil fuels.

DENTAL BUILDING ENVELOPE

The Dental Building at Lansdowne campus includes the following upgrades which will lead to emission reductions: updating and installing insulation, eliminating any heat-loss/air leakage through upgrades to sealants and membranes as well as installing new windows and doors with improved energy efficient performance characteristics.

LED LIGHTING UPGRADE LANSDOWNE CAMPUS

Camosun College, with help from BC Hydro's Incentive Fund Program, is retrofitting lighting on the Lansdowne campus. This project is expected to result in an annual energy savings of 69,000 kWh. This project started in 2020 and extended through 2021-22.

EV CHARGING ON CAMPUS

Six new electric vehicle (EV) charging stations were created in the student parking lot at Lansdowne Campus (Jan 2021) This action brings a better distribution of EV stations across both campuses and aligns with the Provincial Clean BC Plan.

SMART METERING BUILDINGS

Camosun completed the planning and procurement stages of enhancing Smart Metering for all buildings in 2021. Smart Metering all buildings will help create energy consumption baselines and will aid in measuring successes. It will also help with behavioral change campaigns, because the plan is to have this information available on a public dashboard. Furthermore, it will help improve reporting granularity so that Camosun is able to see and celebrate the positive impact of ongoing upgrades.

ADDITIONAL BUILDING UPGRADES

- Implemented HVAC upgrade at Huber Hall – Red Lab, Interurban
- Renovation of the Compressor Building at Interurban, including new insulation, heat pump and HVAC

Mobile Sources (e.g. fleet vehicles, off-road/portable equipment)

Camosun continued to take action in 2021 to support emission reductions from mobile sources.

The strategies Camosun took to reduce emission from mobile sources included:

- Moving from gas powered grounds equipment to electric grounds equipment
- Using streamlined regular "Courier/Receiver" routes and a "minimum travel, maximum cargo" efficiency program for travel between Lansdowne and Interurban campuses by Camosun's Receiving department.
- In 2021, Camosun began investigating the completion of a fleet assessment through the Province of BC's Go Electric Fleets program.

Paper Consumption

Camosun continues to make strides to reduce paper consumption on campus, including the use of 100% recycled paper products for many years. We saw a very large reduction in paper use over the pandemic, and saw a relatively small increase with fulsome classes on campus in 2021. Camosun utilizes paper accounting system, which allows the cost of paper to be billed directly to departments quarterly. We continue to look for ways to reduce our printer fleet as our current agreements come up for renewal. Camosun Print Services plans to do a comprehensive review and analysis of the college needs in a post pandemic environment.

2021 GHG EMISSIONS AND OFFSETS SUMMARY TABLE

Camosun College 2021 GHG Emissions and Offsets Summary	
GHG Emissions created in Calendar Year 2021	
Total Emissions (tCO_2e)	*2209*
Total $BioCO_2$	*2.22*
Total Offsets (tCO_2e)	*2207*
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO_2e)	*0*
Grand Total Offsets for the 2021 Reporting Year	
Grand Total Offsets (tCO_2e) to be Retired for 2021 Reporting Year	*2207*
Offset Investment ($25 per tCO_2e)	*$55,175*

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, Camosun College (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2021 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 LEADERSHIP

Climate Risk Management

Camosun is accelerating and reflecting on Climate Risk Management strategies for our institution in the face of a changing climate in the following ways.

Firstly, Camosun is in development of a Climate Emergency Declaration, which in part will highlight managing the risks related to a changing climate.

Secondly, updating operations and maintenance procedures have occurred. The adverse effects of the heat dome weather event in June,2021,highlighted the significant risks related to climate change. Camosun College experienced overheating of many cooling systems on campus, and due to this as well as other compounding factors, the college closed for one day in June 2021. This experience lead our Operations Maintenance department to enhance operating procedures for cooling systems on campus during heat waves. Further actions Camosun has taken in terms of risk management during extreme weather include our communications systems. Camosun provides our community with up to date severe weather details, health related issues and actions (personally and institutionally) during extreme weather situations.

Finally, Camosun College is integrating Climate Change Risk into Emergency Management Plans. Due to climate change and extreme climate events increasing in frequency throughout the Capital Regional District, and due to substantial overlap of shared goals and targets between Climate change adaptation (CCA) and disaster risk reduction (DRR), it has been necessary to ensure the integration of climate risk considerations into the Camosun College Emergency Plans. Integrated factors include: tackling the challenges of defining mitigation strategies, providing education about personal preparedness, adapting available resources to address needs arising from extreme weather events (such as the potential provision of warming/cooling centres), and expanding the college's capacity to absorb the impacts in the response to, and recovery from, climate change and extreme climate events.

Other Sustainability Initiatives

EDUCATION PROGRAMMING:

Electric Vehicle Maintenance Training coming to Camosun:

In March, 2021, the Province announced $440,000 for the expansion of EV Maintenance Training programs through the Clean BC Go Electric program to three additional B.C. colleges in partnership with Trades Training BC. The program provides Red Seal automotive technicians with the skills they need to work on EVs, supports the growing demand for EVs in B.C. and prepares British Columbians for good-paying jobs in the burgeoning clean-energy economy. In 2021, the program was successfully piloted at Camosun College as two one-week in-person courses at its Interurban campus.

Social Sustainability Framework and Planning for Wilna Thomas (WT) Building:

As part of the planning for the WT building, a Social Sustainability Assessment and Framework was developed for Camosun College. The Framework was based on industry recognized benchmarking tools, chosen for their alignment with Camosun College's holistic Sustainability goals for health and wellness, inclusion and accessibility. Apart from highlighting the social sustainability successes of the WT Project, the framework articulated a series of clear, measurable, implementation strategies which align with Camosun's social sustainability goals for future projects.

Social Sustainability aspects of the WT project focused on accessibility, health, and wellness. These aspects include aligning with Rick Hansen Foundation Accessibility criteria, enhanced interior circulation, natural lighting, biophilic design and access to nature.

EXECUTIVE SIGN-OFF

Executive Sign-off:

Deborah Huelscher	May 31st 2022
Signature	Date
Deborah Huelscher	Vice President, Administration and Chief Financial Officer
Name (please print)	Title