

2023 Sustainability Report

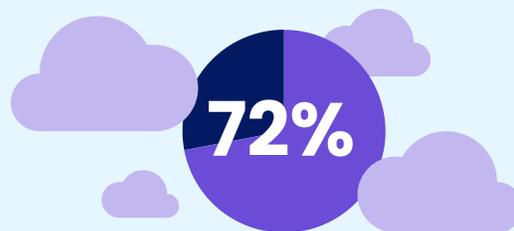


**Bow Valley
College**

2023 | Sustainability Year in Review

We gained momentum by expanding the Sustainability Office and making progress on our Carbon Reduction Plan.

The Sustainability Office expanded to 2 roles: **Climate Specialist** and **Sustainability Engagement**



Reduction in **GHG emissions** as pilot programs were introduced for electricity and heating



A scan of applied research linked 14 projects to the **United Nations Sustainable Development Goals**. Common Links included:



189,000 kg recycled and composted



Waste Reduction Week social media story gained more than 10,000 views

Table of contents

5 Introduction

7 Operations

Electricity, Water, and Heating

Climate

Sustainable Transportation

Purchasing

Food Services

Waste, Recycling, and Reuse

17 Events, Engagement, and Communications

20 Academics

21 Looking Ahead



1594

WEST VALLEY COLLEGE

WEST CAMPUS WEST CAMPUS

BRADLEY HALLWAY HOTEL

Introduction

Sustainability demands momentum: a consistent effort to diminish our environmental impact, foster sustainable growth, and meet the needs of our community while safeguarding the interests of future generations.

The past year marked a period of growth and learning for the sustainability team at Bow Valley College, as we concentrated on enhancing capacity and cultivating momentum for the years ahead. The Sustainability Office has expanded to two roles: Climate Specialist, Amy Spark, and Sustainability Engagement Specialist, Grace Wark. With a growing team, Campus Services has increased integration of sustainability initiatives across all areas including, but not limited to, building planning and design, purchasing, and vendor engagement.

In 2023, Bow Valley College:

- Hired a second sustainability position to lead engagement with students, faculty, staff, and vendors.
- Made progress on our carbon reduction plan, including two pilot projects to decarbonize our heating and electricity.
- Opened an additional bike cage outside North Campus.
- Renewed our Bee Campus designation.

- Opened the Second Chances Free Store in the Intercultural Centre to improve learner access to second-hand clothing and home goods.

The United Nations 17 **Sustainable Development Goals** (SDGs) are the backbone of our work in sustainability. Each section of this report is aligned with targets from these international goals and the corresponding Canadian ambitions (labelled as CIF for “Canadian Indicator Framework”).

We have highlighted specific ways we collaborate both within and outside the post-secondary sector throughout this report. Look for the “Thinking Bigger” sections in this report for information on how Bow Valley College contributes to the wider sustainability community.



SDG 16.6

Develop effective, accountable, and transparent institutions at all levels.

CIF 16.3

Canadians are supported by effective, accountable, and transparent institutions.





Operations

Electricity, Water, and Heating

Bow Valley College's electricity and water consumption have continued to increase as more people use the downtown campus, consistent with an increase in learner enrolment from 2022 to 2023. Conversely, building heat from natural gas and district energy decreased, particularly during the winter months while temperatures remained unseasonably high. It was a record-breaking year as Calgary saw its warmest December in 140 years with an average temperature of 0.1°C.

This was the first year that we purchased **renewable energy** for our downtown Calgary campus. 9,000 MWh (megawatt hours) of renewable energy certificates (RECs) were purchased from hydroelectric and wind sources in Alberta and British Columbia. To reduce the emissions associated with our heating, we

negotiated the purchase of five months of carbon-neutral heat for the South Campus building from our district energy provider. Although Bow Valley College is not the only organization on the district energy system, we are the first organization in Calgary to negotiate a contract amendment of this type.

We entered our second year of having electric vehicle charging stations in the South Campus parkade. As predicted, the use of these stations has grown more popular, increasing from 245 charging hours in 2022 to 905 charging hours in 2023. The two charging stations provided more than 3,300 kWh free of charge, equal to more than 17,100 km in driving distance.



SDG 7.1

By 2030, ensure universal access to affordable, reliable and modern energy services.

CIF 7.2

Canadians reduce their energy consumption.



CIF 6.3

Canadians have access to drinking water and use it in a sustainable manner.

Thinking Bigger:

Bow Valley College was the first post-secondary institution to join the Business Renewables Centre. This community accelerates the installation of renewable energy projects across Canada and is helping us develop our long-term renewable electricity strategy.

Operations

Electricity, Water, and Heating

Figure 1

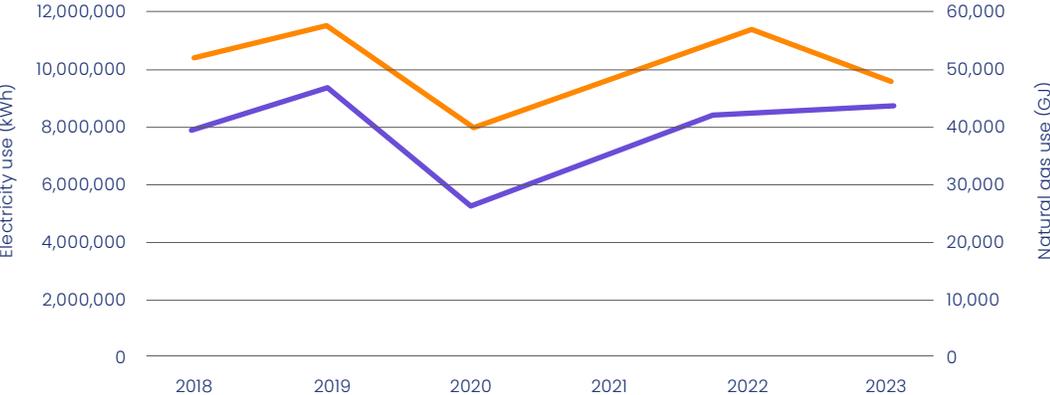


Figure 1

Total electricity use in kilowatt-hours (purple) and natural gas use in gigajoules (orange) of the downtown Calgary campus between 2018 and 2023.

Figure 2

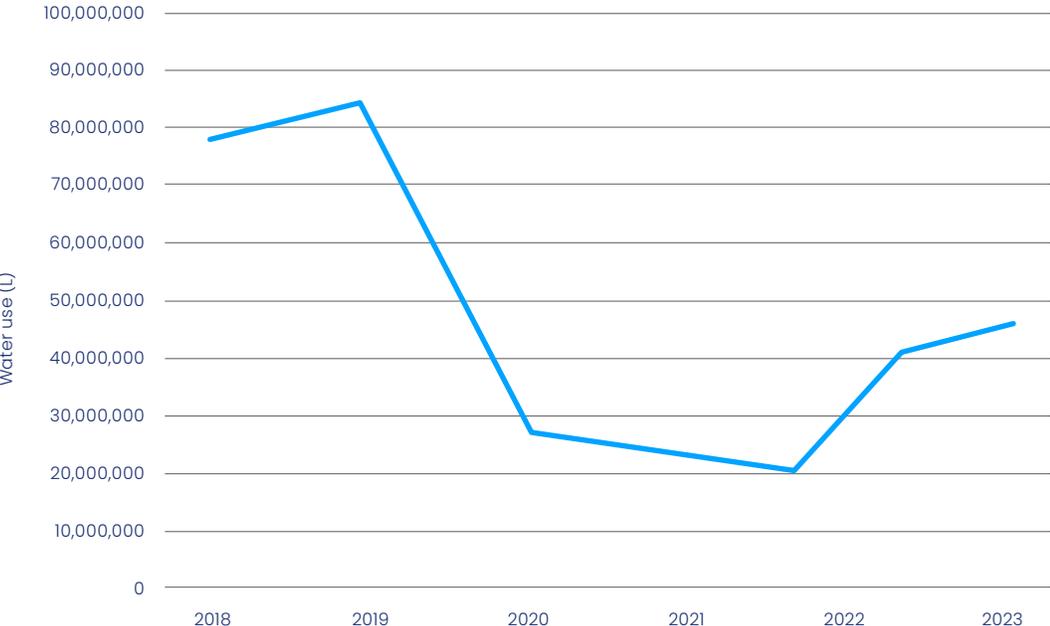


Figure 2

Total water use in liters of the downtown Calgary campus between 2018 and 2023.

Operations

Climate

We began implementing our carbon reduction plan in 2023. Greenhouse gas (GHG) emissions are classified into three categories under the international **GHG Protocol**: “scope 1” represents emissions from our boiler heating (North and West Campuses), “scope 2” represents emissions from our electricity use and district heating (South Campus), and “scope 3” is a vast category that represents emissions from employees and students commuting, business travel, water use, waste, and more. Bow Valley College tracks all three scopes, but we focused our reduction efforts on scopes 1 and 2 in 2023.

Because we purchased renewable energy certificates (RECs) and were able to amend the contract with our district energy provider (outlined in the previous section), our scope 1 and 2 greenhouse gas emissions were reduced by 72% in one year (see Figure 3).

These purchases represent an important step in our decarbonization journey. We are working closely with our district energy and electricity providers on long-term plans for decarbonization and will share updates on the Bow Valley College website throughout 2024.

Thinking Bigger:

We continue to be an active member of Colleges and Institutes Canada (CICan)’s ImpAct Climate Initiative. In 2023, we joined the advisory committee for CICan’s April 2024 forum on *Charting a Path to Net Zero: Education’s Role in Delivering a Green Transition*.



SDG 13.3

Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

CIF 13.1

Canadians reduce their greenhouse gas emissions.

Figure 3

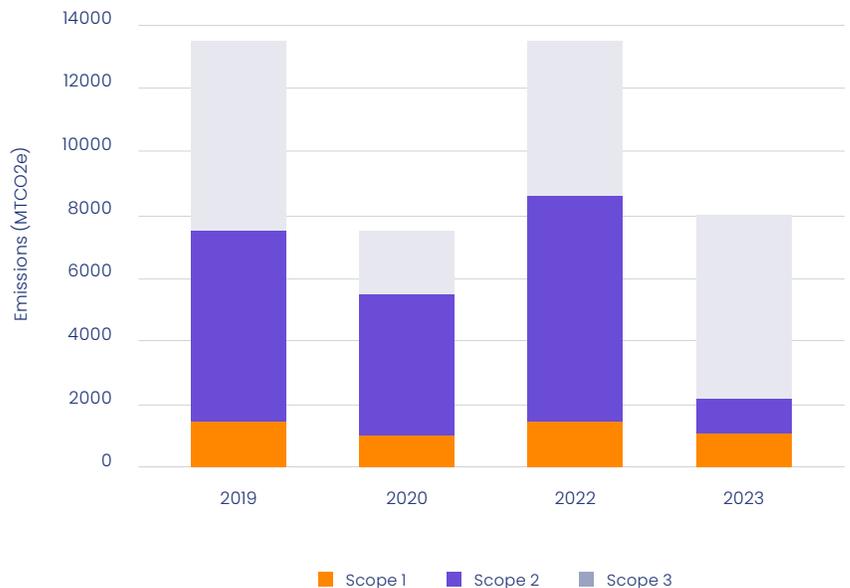


Figure 3

Greenhouse gas emissions emitted by the downtown Calgary campus between 2019 and 2023. Scope 1 includes boiler heating, scope 2 includes electricity and district heat, and scope 3 includes all other College activities. Data is unavailable for 2021.

Operations

Sustainable transportation

In 2023, **we expanded secure bike storage** by opening a new bike cage outside our North Campus building. Students may gain access by contacting the Students Association of Bow Valley College (SABVC), while employees are encouraged to reach out to Campus Services for access.

Our “Bike Buddies” group continues to grow as more staff choose to commute via bicycle. For Bike-to-Work Day in May, we offered free bicycle tune-ups for Bow Valley College employees and students, as well as community members in the immediate area. In August, several college employees participated in a group bicycle ride along the Elbow River pathway and through East Village.

As of September 19, 2023, the City Hall LRT station was renamed the **City Hall/Bow Valley College Station**. This change aims to enhance community connectivity, improve wayfinding for visitors, and recognize our institution as a city landmark.

Thinking Bigger:

Bow Valley College participates in a community of practice convened by the University of British Columbia about reducing emissions from air travel. We also contributed to an upcoming report by **Urban Systems** on sustainable transportation in the post-secondary sector.



CIF 11.5

Canadians live in healthy, accessible, and sustainable cities and communities.

SDG 11.2

By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.



CIF 9.7

Canadians have access to modern and sustainable infrastructure.





Operations

Purchasing

We are taking steps to ensure our supply chain aligns with our sustainable values. In 2023, we introduced a standard sustainability clause into all contracts outlining how we want each company we work with to follow our sustainability guidelines.

Whenever the college seeks to purchase goods and services over \$75 000, we run a competitive bid to find vendors that not only provide the best price, but also align with our institutional values and sustainability goals. Twenty-seven bids were published by the college this year, 23 of which were assessed by the Sustainability Office. We posted seven competitive bids that had sustainability weighted between 10-20%, while the remaining 16 bids had sustainability weighted at 5% of the vendor's score.

The Sustainability Office encourages staff to avoid over-purchasing items like office supplies and promotional items, and to select sustainable options whenever possible. This includes items made from recycled content and paper manufactured using sustainable forestry methods. These guidelines appear to be working (see Figure 4). Although the amount of office supplies purchased in 2023 increased compared to 2022, the proportion of sustainable supplies also increased. We have more reuse initiatives and staff engagement planned in 2024, with the intention to continue to reduce the need for new office supplies.



SDG 12.7

Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

SIF 12.2

Canadians consume in a sustainable manner.

Figure 4



Thinking Bigger:

Bow Valley College is the only Canadian member institution of the Sustainable Purchasing Leadership Council. In March 2023, we presented to the Alberta Public Purchasing Group on our sustainable purchasing efforts.

Figure 4

Proportion of sustainable (orange) and non-sustainable (navy) office supplies purchased from Grand & Toy between 2018 – 2023. Data unavailable for 2020.

Operations

Food services

In 2023, Bow Valley College relaunched its Food Security Committee to address the availability of nourishing, affordable, and culturally appropriate food. Meal programs are provided by Student Services, the Iniiikokaan Centre, the Intercultural Centre, and the Students Association of Bow Valley College (SABVC).

We continue to work closely with our commercial vendors to align their work with our sustainable development objectives. Sodexo provides the food service for the Market cafeteria, the college's Tim Hortons outlets, the River Walk Café, and catering services. In 2023, Sodexo generously donated

300 meals per semester to students and \$3,000 in catering to SABVC for student events.

In preparation for changes to single-use plastics in Canada, the Sustainability Office provided training to food service staff on single-use item reduction. As of January 2024, all single-use plastic cutlery, bags, and straws have been phased out of the college's food services. Plastic cutlery has been replaced with compostable paper or bamboo alternatives.



SDG 12.3

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.



CIF 2.1

Canadians have access to sufficient, affordable and nutritious food.

Operations

Waste, Recycling and Reuse

Each year, Bow Valley College diverts waste from the landfill through composting and recycling programs in accordance with City of Calgary bylaws.

Figure 5 does not include waste generated from regional campuses, bottles and cans, or specialized recycling programs as these are collected and tracked separately (see infographic on page 17).

With all specialized recycling programs considered, Bow Valley College's total diversion rate for 2023 was 80%. This is a 6% decrease from the average diversion rate observed over the previous three years. Both the garbage and compost systems saw more than a 40% increase in material weight over the year, consistent with greater use of the downtown Calgary campus.

Figure 5

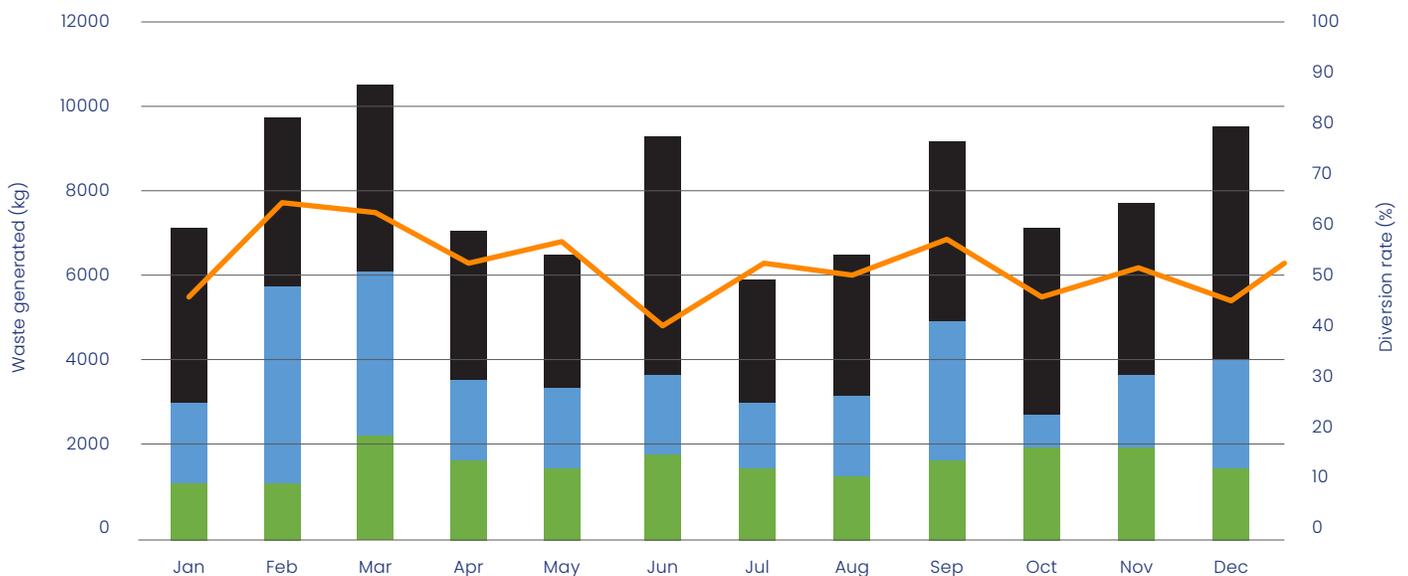


Figure 5

Amount of waste (in kilograms) composted (green), recycled (blue), and sent to landfill (black) in 2023 from waste stations in hallways and office areas. The orange line indicates the diversion rate for each month (percentage of recycling and composting of all waste generated).

Operations

Waste, Recycling and Reuse

Specialty recycling and donation programs are in place to manage the specific wastes created by our programs and building operations. Students can now access lightly used clothing, school supplies, and household goods from the [Second Chances Free Store](#) launched by the Intercultural Centre in 2023.

When storage areas and offices are cleaned out, every effort is made to ensure that items do not go to waste. Eight medical simulators were donated to Cobb's Adventure Park to

be used as props in the annual Field of Screams Halloween event. 15 boxes of goods and clothing, and 220 pieces of furniture were donated to Mount Royal University, Goodwill, Calgary Drop-In Centre, Habitat for Humanity Restore, Calgary Girl's School, and Calgary Women's Centre, and a further 152 pieces of furniture were repurposed through the Government of Alberta Surplus Supply program.



SDG 12.5

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.



CIF 11.6

Canadians live in healthy, accessible, and sustainable cities and communities.



132,364 kg
shredded
paper



500 kg
masks
and gloves



1,223 kg
beverage
containers



229 kg
pens and
batteries



6,047 kg
electronics

Thinking Bigger:

The world of reuse and waste reduction is complex and ever-changing. We have learned a lot since we first implemented our waste diversion strategy in 2016. This year, we shared what we have learned with several colleges who are currently developing their own waste strategies.



Events, Engagement, and Communications

Events

Bow Valley College creates opportunities for students, employees, and faculty to engage in sustainability topics through events and workshops.

The Sustainability Office supports college-wide events throughout the year, such as New Student Orientation, Volunteer 101, Soup Social, and Open House. A further seven events were hosted directly by the Sustainability Office to highlight a wide variety of topics including: urban wildlife conservation, active transportation, waste reduction, community science, and the connections between environmental sustainability, diversity, and mental health.

January	February	March
		*Earth Hour Unplugged
April	May	June
Sustainability and Diversity Walking Tour  	Bike-to-Work Day	Protecting Urban Wildlife Workshop *Mayor's Environment Expo  
July	August	September
	College Reconnect Bike Tour 	Sustainability and Mental Health Nature Walk
October	November	December
Waste Reduction Week Sustainability Committee Relaunch  	Discovery Hub for Science and Peace	Upcycled Cardmaking Workshop 

*Off-campus events hosted by community partners. The Sustainability Office facilitated opportunities for students to participate in or volunteer for external environmental activities.

Events, Engagement, and Communications

Communications

In October, the Sustainability Office ran a communications campaign to promote Waste Reduction Week in Canada. The five-day campaign highlighted reuse, recycling, and circular economy concepts and gained more than 10,000 views across the college’s social media channels.

It’s Waste Reduction Week

Join the Sustainability Office in learning about waste on campus and how we can reduce it.



Let’s talk about the circular economy

When we **reuse, repair and recycle** items, we reduce the energy and resources needed to create new things.

This is the circular economy.



The **Second Chances Free Store** and **free stationery shelves in the library** are examples of circular economy on campus.

Plastics Thursday

Did you know that only 9% of Canada’s plastics are recycled each year?

The best way to help improve this is to reduce the amount of plastic you buy and use.



Waste Reduction Week



SDG 12.8

By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.



SDG 13.3

Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.

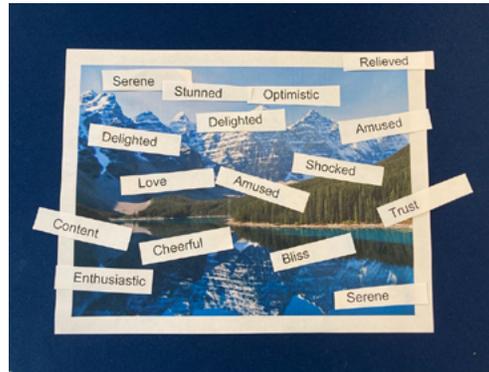


Academics

Bow Valley College offers a wide range of program areas with both direct and indirect links to sustainable development. Courses such as Introduction to Organizations and Sustainability (Business Administration) and Sustainable Interiors (Interior Decorating) have integrated environmental, social, and economic sustainability concepts directly into the course curricula to equip learners with the tools to champion sustainability in their chosen careers.

The Sustainability Office has worked to develop complementary resources, guest lectures, and co-curricular opportunities to help bring sustainability into the classroom. In 2023, guest lectures were provided for 12 classes to 279 students covering topics from decision-making in complex environments to the role of social workers in the climate crisis.

As part of our commitment to upholding the United Nations 17 [Sustainable Development Goals](#) (SDGs), Applied Research and the



Sustainability Office completed work to understand the various links between the college's research and the SDGs. In 2023, Jolly Bangué, a Bow Valley College student, conducted interviews with key employees on 14 research projects and mapped their contributions to specific targets. Common links included Good Health and Wellbeing (SDG #3), Quality Education (SDG #4), Gender Equality (SDG #5), and Reduced Inequalities (SDG #10). We will continue to align research with the SDGs to support their progress as we approach 2030.



SDG 4.7

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development.

CIF 4.1

Canadians have access to inclusive and quality education throughout their lives.

Thinking Bigger:

In 2023, we partnered with Mount Royal University, the University of Calgary, and the Calgary Climate Hub to offer events for students and graduates interested in incorporating their skills into careers in sustainability.

Looking ahead

We are proud of the progress made in 2023 and grateful for the opportunities to learn and build momentum for the coming year. Sustainability is not a straightforward journey, but each year, we strive to improve our operations and to do our part to meet the Sustainable Development Goals.

These are our priorities for 2024:

- Explore what climate resilience means for the Bow Valley College community.
- Use the campus as a living lab for food waste reduction.
- Streamline waste procedures for construction and hazardous materials.
- Facilitate more sustainable volunteer opportunities for students.





**Bow Valley
College**

bowvalleycollege.ca

