

# BIOSPHERE INSTITUTE OF THE BOW VALLEY

**2021** was a good year for the Biosphere Institute – as you'll see in this report! We saw a wonderful level of engagement and ownership from our community partners, and were thrilled to see our participation numbers creeping back up as the pandemic lessened its grip somewhat on Bow Valley residents and visitors.

At the same time we also experienced unprecedented growth in visitation to the parks and protected areas surrounding the Bow Valley – for example, over five million people visited Kananaskis Country last year, close to double the number from just a few years ago! Certainly, visitors understand the importance of spending time in nature – but this incredible increase puts more pressure on wild nature, and underscores the importance of our work to help ensure the successful coexistence of people and wildlife.

This year WildSmart initiated the Trusted Messengers project, which empowers Bow Valley residents to be advocates for wildlife through the design and delivery of human-wildlife coexistence messages tailored to different user groups. We continued to deepen our inclusion programs among newcomers to Canada and non-English-language speakers through new relationships with the Calgary Local Immigration Partnership and the Calgary Bridge Foundation for Youth.

We love it when we can incubate great ideas and see them carry on under their own steam. We take pride in our role in helping create the Bow Valley Green Energy Cooperative, and were thrilled to see the group 'flip the switch' on the first ever community-owned solar photovoltaic system in our region. The Cooperative also opened membership to the public – of course, we're a proud member!

In another example of empowering leadership, we led the organization of the Canadian Rockies Youth Network and Summit for high school students through the Future Leaders program. We ran numerous workshops and presentations in partnership with a passionate youth executive committee. We then stepped away – and are thrilled to report that the Network is still thriving, thanks to these committed young leaders.

I'm excited to report that the first part of 2022 will see our dynamic and talented board and staff consider community needs and environmental imperatives as we reimagine our work, resulting in a revitalized strategic plan that will guide our efforts and maximize our impact. Our community, and this wonderful wild place that we are privileged to call home, deserve nothing less.

We extend our gratitude to our funders and partners who supported us in 2021, and to volunteers and stakeholders who contributed their resources, time and expertise as they joined us in our work. Please read on to learn more about our 2021 achievements.



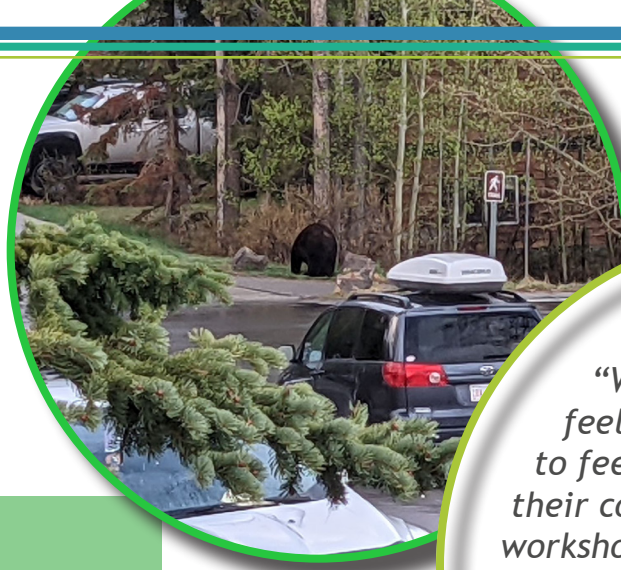
Gareth Thomson  
Executive Director



**WILDLIFE  
CLIMATE  
COMMUNITY**

# WILDSMART

*WildSmart is a proactive conservation program that encourages efforts by communities to improve human-wildlife coexistence.*



*“We want newcomers to feel part of the community, to feel included and engaged in their communities. The WildSmart workshops definitely contributed to building that sense of community.”*

Samantha Burdett, Coordinator,  
Calgary Local Immigration Partnership

We know that people are central to finding solutions to the conservation challenges facing the Bow Valley. In 2021, WildSmart created opportunities that elevated the voices of volunteers and recreationalists in order to increase ownership and involvement in those solutions.

BEAR REPORT SUBSCRIBERS  
**3318**

WEBSITE VISITS  
**61,538**

TV, RADIO & NEWSPAPER INTERVIEWS  
**42**



## REACHING NEW AUDIENCES ONLINE

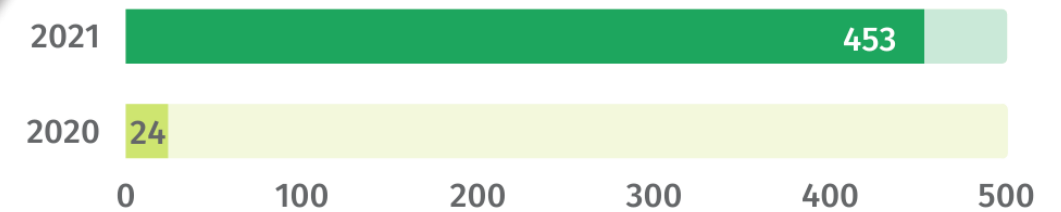
Building on our successful efforts to develop online resources in 2020, we hosted a virtual bear week to celebrate the emergence of bears from their dens. With a gradual return to in-person programming, we found a balance between these two avenues for reaching audiences of all ages.

We continued to provide trusted and up-to-date information about human-wildlife coexistence to the media, including a recurring monthly segment on Global News. Our weekly Bear Report hit a new milestone of over 3000 subscribers.

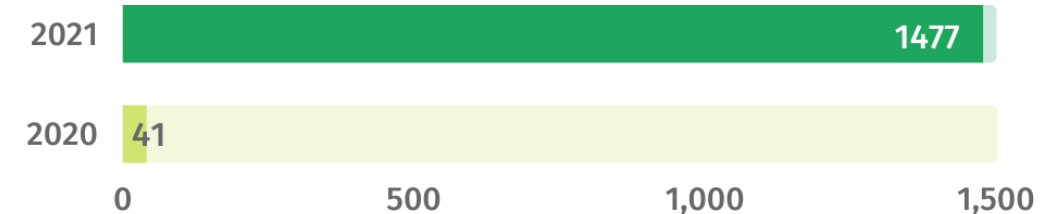
## IMMIGRATION PARTNERSHIPS

We expanded our outreach efforts among newcomers to Canada and non-English-language speakers through online and in-person workshops with Settlement Services in the Bow Valley, Calgary Local Immigration Partnership and the Calgary Bridge Foundation for Youth.

### BEAR SPRAY TRAINING PARTICIPANTS



### WILDLIFE SAFETY WORKSHOP PARTICIPANTS



## TOOL LENDING LIBRARY

In autumn, we saw a large number of black bears entering towns in search of food, due in part to a poor berry crop. WildSmart responded by putting tools in the hands of residents to help prevent interactions between wildlife and humans. Our tool lending library enables residents to manage attractants on their properties, thus taking an active role in living with wildlife.

# WILDSMART

*“During the winter of 2020, we saw visitation go up significantly, and especially for new recreationalists in the outdoors. One of the key objectives of the Wildlife Ambassadors was to address key public safety education.”*

Michael Olsthoorn, Kananaskis Public Safety

## COMMUNITY AMBASSADORS FOR WILDLIFE

For the first time ever, Wildlife Ambassadors delivered roving programs during the winter on trails throughout Kananaskis and the Bow Valley. They delivered messaging around winter wildlife ecology and safety, avoiding avalanche terrain and winter preparedness.

The Wildlife Ambassadors reached another level of leadership and involvement this year by running multiple clinics, workshops and community events. One volunteer alone devoted an incredible 133 hours to WildSmart programs!



WILDLIFE  
AMBASSADOR  
VOLUNTEER  
HOURS  
601

WILDLIFE  
AMBASSADOR  
CONVERSATIONS  
WITH THE PUBLIC  
9,653

TOTAL  
WILDSMART  
CONTACTS  
12,280

## TRUSTED MESSENGER

### JOSHUA WELSH

Josh and his family feel most at home when they are outside. He reached out to the Biosphere Institute to support him in his goal of creating stronger partnerships between conservation and recreation, two things he cares deeply about. He observed that love for the land was a common feature of both of these disciplines and identified an opportunity to push boundaries. This idea eventually evolved into the Trusted Messengers project.

*“As a trail runner, I was specifically interested in identifying those areas where trail running and conservation intersect. The ultimate goal for me is cultural change, where outreach is only necessary to educate those new to the region and for the rest of us, coexisting is second nature.”*



## TRUSTED MESSENGERS

The Trusted Messengers project empowered Bow Valley community members to be advocates for wildlife through the design, delivery and evaluation of tailored human-wildlife coexistence messages.

We shaped conservation messages to resonate with specific user groups including trail runners, mountain bikers, climbers and youth. Those messages were then delivered by the Trusted Messengers through conversations, videos and social media.

Post-program surveys suggested that these messages increased participant knowledge and reduced barriers to action. The results of this project will continue to inform how we develop programs and resources in the future to reach key audiences.



# SHIFT: CLIMATE TRANSITIONS

*The Shift program empowers Bow Valley residents to take action on climate change by reducing their energy emissions, waste production and water use.*

In 2021, our summer was filled with smoke, and Western Canada experienced massive flooding, landslides and wildfires. This resulted in huge environmental, social and economic impacts on communities. In the face of this, Shift promoted community resiliency and action through several public education campaigns and community led projects.

**AN INTRODUCTION TO THE IMPACTS OF CLIMATE CHANGE ON THE BOW VALLEY**

The Bow Valley is already feeling the impacts of climate change.

Climate models predict the average annual temperature in the Bow Valley will increase by 1.9°C in the next 30 years. Projected changes in temperature and precipitation will have wide-ranging impacts across the natural environment.

This year we want to help people understand the local implications of climate change.

So, each month we will highlight a potential impact as well as provide you with the usual hints and tips on local and personal action.

Welcome to 2021, a year for action!

**RENEWABLE ENERGY AND YOU**

**SIGN UP TO GREEN POWER**  
For a small additional fee, companies such as Bullfrog Power and Bow Valley Power inject green electricity into the grid to match the amount of power your home or business uses. This encourages future development of renewable energy projects, which reduces our reliance on conventional methods of electricity generation.

**LEASE A SOLAR PV SYSTEM**  
Are you still looking for your forever home? ENMAX offers the opportunity to lease a solar system. With an initial down payment of 25% and a fixed APR, ENMAX will design, install and maintain your system during the lease period. At any time, for a small fee, you can return the system, much like a phone contract!

**COMMUNITY GENERATION**  
Community generation allows anyone to advance renewable energy through partial ownership of community-based projects. Bow Valley Green Energy Coop is a grassroots social enterprise working to facilitate community-owned renewable energy generation projects in the Bow Valley. Become a Member or a Friend of the coop today to learn how you can get involved. [www.bvgreenenergy.org](http://www.bvgreenenergy.org)

*Infographics featured in the Shift newsletter in 2021*

SHIFT NEWSLETTER SUBSCRIBERS  
**1269**

## SHIFT NEWSLETTER

Tackling climate change requires that individuals are aware of the root causes of the problem and the solutions that are available to them. Our monthly Shift newsletter offers insights on how climate change is being felt in the Bow Valley as well as strategies for reducing our personal contributions to climate change.

REACH OF SOLAR EDUCATION CAMPAIGN  
**2284**

*“Many people have asked me questions that suggest they don’t fully understand green energy installations in Alberta. BVGEC is an opportunity to reduce the barriers to acceptance and then installing green energy.”*

Joey O’Brien, BVGEC Board of Directors

## SOLAR: DID YOU KNOW?

In conjunction with Bow Valley Green Energy Cooperative (BVGEC), we designed an education campaign on the environmental, social and economic aspects of solar energy. We are proud to have launched this great group!

Over the long-term, this project contributes to the understanding and education on the proven science and clear environmental benefits of carbon neutral energy. The educational components of the campaign will be combined with a solar installation in Canmore that is slated for completion in Spring 2022.

**Southern Alberta has some of the highest solar potential of any place in Canada.**

**Solar is creating jobs in Alberta.**

# SHIFT: CLIMATE TRANSITIONS



## BOW VALLEY GREEN ENERGY COOPERATIVE (BVGEC)

The collaborative efforts of the Biosphere Institute and BVGEC reached a number of significant milestones in 2021.

We switched on the first ever community-owned solar photovoltaic system in our region, an 11.25 kW installation on the Ralph Connor Memorial Church. Several power purchase agreements have been signed with additional host sites, and installations are scheduled for completion in 2022.

Membership in the Cooperative was opened in March, and in August BVGEC issued their first share offering to family, friends, business associates and accredited investors.

The Cooperative is now working to sell energy under the name Rocky Mountain Community Energy and in 2022 will provide Bow Valley residents with another opportunity to support green initiatives that benefit our community.

*"I believe individuals and communities have a responsibility to take action and contribute to the energy transition. Tapping into the strength of a community to drive change is powerful and inspirational and I am humbled to be part of such a great movement."*

Jamie Olscamp, BVGEC Board of Directors

INVESTMENT  
PROCUREMENT  
\$75,000+

CONNECT  
NEWSLETTER  
SUBSCRIBERS  
279

NEW  
VOLUNTEERS  
RECRUITED  
30

BVGEC  
MEMBERS  
50+



**BOW VALLEY  
GREEN ENERGY  
COOPERATIVE**



**ROCKY MOUNTAIN  
COMMUNITY ENERGY**

**BVGEC BOARD MEMBER**

### KARENA THIEME

Karena is invested in the growth of renewable energy in the Bow Valley. She got involved as a BVGEC board member because she knows that we cannot wait idly for the impact and risks of climate change to become even more present in the valley. As more and more residents begin seeking ways to reduce their greenhouse gas emissions, she views the work of Bow Valley Green Energy Cooperative as crucial to meeting that demand.

*"There is no better time to act than now. The Biosphere Institute's support was instrumental in developing BVGEC's first installation because they provided the community platform and the resources to take this initiative from an idea to where it is now. We all need to work together to prepare the community for the future."*

# FUTURE LEADERS

*Our youth education program seeks to build the knowledge, skills and a sense of purpose that students will require to become the next generation of environmental leaders.*

This year the Future Leaders program was defined by the connections we forged between different voices who care about our wild spaces. We created many pathways for meaningful youth engagement in conservation challenges that face our communities.



## YOUTH LEADERS IN ACTION

We took on a key role in organizing the Canadian Rockies Youth Network (CRYN) and Summit in partnership with Energy and Environmental Innovations students and staff from Central Memorial High School. This year-long project culminated in a series of workshops, an online summit, a retreat and the creation of a mentor network.

Youth were directly involved at every stage of the planning process through a passionate executive committee, including brainstorming, organizing and presenting. This level of involvement built valuable leadership and teamwork skills and generated buy-in among the committee's peer groups.

## CANADIAN ROCKIES YOUTH NETWORK 2021 HIGHLIGHTS

PRE-SUMMIT PARTICIPANTS  
390

### PRE-SUMMIT WORKSHOPS

This series of four foundational workshops were created through a collaboration with Nakoda Youth Council founder Daryl Kootenay. Each workshop welcomed different Indigenous presenters, with topics ranging from ways of engaging with place to roads to action.

SUMMIT PARTICIPANTS  
413

### SUMMIT

The Canadian Rockies Youth Summit was held virtually in May. Over the course of three days we hosted an incredible 36 speakers and 20 workshops and presentations.

RETREAT PARTICIPANTS  
20

### TAKE ACTION RETREAT

This day of workshops supported youth in becoming involved in environmental action projects. It spurred on the creation of 16 youth-led projects, including a blog to showcase what youth are up to and a learn-to-camp kit to support more inclusive access to Rockies frontcountry destinations.

OUTWARD BOUND PARTICIPANTS  
8

### OUTWARD BOUND TRIP

A new partnership was created with Outward Bound Canada, who offered scholarships for 8 students to attend a 7-day back-packing trip. This had a profound impact on the youth and was essential in recruiting youth to the CRYN committee for 2022.

MENTORS  
33

### MENTOR NETWORK

We developed a database of local mentors with a range of expertise who will support future youth action projects.

# FUTURE LEADERS

CRYN YOUTH DIRECTOR

## AVA VANDERBEEK

Ava got involved with the Canadian Rockies Youth Network because she saw a need for youth to be meaningfully engaged in the way that we collectively care for the land. She believes that we can achieve a more sustainable and inclusive future by incorporating Indigenous teachings and Ways of Knowing. As the first female Indigenous Director for the Canadian Rockies Youth Network, Ava has worked hard to bring about this change. In 2021 she was awarded the Mountain Spirit Award at the Banff Mountain Film Festival in recognition of her efforts.

*“Through my role, I have been able to empower youth who care for the environment and our shared mountain spaces. The Biosphere Institute helped bring this project to life by providing mentors to help bridge the gap between the knowledgeable and the future generation.”*

## CLASSROOM PROGRAMS

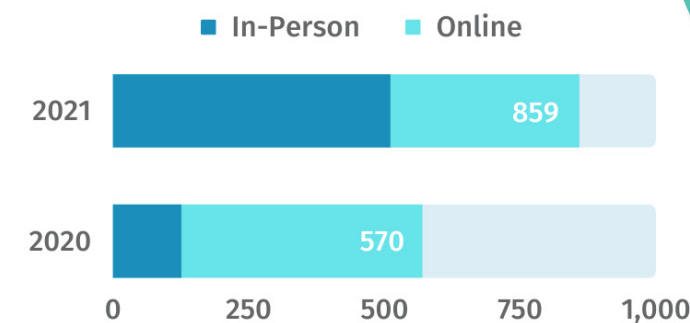
In 2021 we drew upon new strategies for hybrid learning that emerged through the pandemic. This allowed us to expand our reach to audiences beyond the Bow Valley and to work towards pre-pandemic program reach.

In addition, teachers continued to access our collection of educational resources to enhance their classrooms including animal pelts, skulls and online lesson plans. We are making it as easy as possible for Bow Valley teachers to embed biodiversity, sustainability and climate change topics into K-12 learning.

*“In 2021, I was grateful to be able to educate around 300 students in kindergarten to grade 6 about wildlife safety and respect using the resources generously loaned by the Biosphere Institute. Experiences like this help create a generation of caretakers who respect animals and want to keep them safe.”*

Cristin Geestman,  
Nature Explorers Program,  
Banff Elementary School

NUMBER OF PARTICIPANTS IN CLASSROOM PROGRAMS



## KNOWLEDGE EXCHANGE

In February, we co-hosted a digital Alberta-Galapagos student exchange. The exchange brought together 60 participants from schools in Galapagos, Calgary and Canmore with the goal of connecting students and teachers who are concerned about conservation and climate change and who are seeking ways to become more involved in stewardship actions.

Students connected through shared conservation challenges such as balancing tourism pressures with the needs of wildlife.

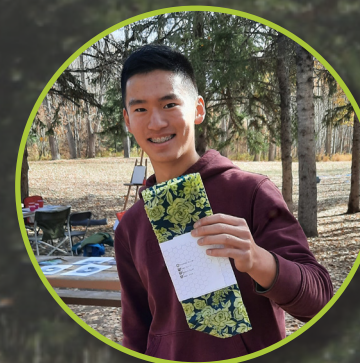


# OUR SUPPORTERS

Alberta Ecotrust  
 Alberta Environment and Parks  
 Anonymous (2)  
 Banff Canmore Community Foundation  
 Calgary Foundation  
 Employment and Social Development Canada  
 Investment Readiness Program  
 Kodiak Wildlife Products Inc.  
 Lafarge Canada  
 Municipal District of Bighorn  
 National Science and Engineering Research Council  
 Rotary Club of Canmore  
 Sandy Lane  
 Town of Canmore  
 Wes & Pat Campbell  
 Weston Family Foundation

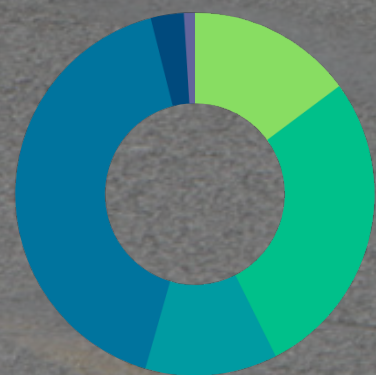
\*We are incredibly appreciative of all our supporters!  
 Please note that only donations >\$1k have been listed here.

# OUR PARTNERS



Acuity Projects  
 Alpine Club of Canada - Rocky Mountain Section  
 BayWa.re  
 Bow Valley Builders and Developers Association  
 Bow Valley Climate Action  
 Bow Valley Green Energy Cooperative  
 Canadian Rockies Youth Network  
 Canmore Area Mountain Bike Association  
 Community & Cooperative Counsel  
 Dirtbag Runners of the Bow Valley  
 Front Point Consulting  
 Jen Feikes Consulting  
 Kananaskis Public Safety  
 KCP Energy  
 Outward Bound Canada  
 Parks Canada  
 Scalesia Foundation  
 Stephanie Jackman Consulting  
 Tourism Canmore Kananaskis

## 2021 REVENUE SOURCES\*



Federal Grants & Assistance	\$61,800
Foundation Grants	\$115,600
Provincial Grants	\$48,000
Municipal Grants & Contracts	\$170,900
Private Donations	\$12,900
Fee for Service & Other	\$2,200
<b>Total Revenue</b>	<b>\$411,400</b>

\*Based on unaudited financial statements for the year ending on 31 December 2021.  
 Amounts rounded to the nearest hundred.

*The Biosphere Institute of the Bow Valley is located on and operates within the lands of Treaty 7 Territory and the Metis Nation of Alberta, Region III. We acknowledge past, present and future generations of Indigenous peoples who have been living, working and stewarding this landscape since time immemorial.*



# OUR AUDIENCES



Biosphere Institute staff delivered WildSmart, Shift: Climate Transitions and Future Leaders Youth Education programs to dozens of organizations in the Bow Valley and Calgary in 2021, including:

- 5 Peaks Adventures - Alpenglow School - Arc'teryx -
- Association of Canadian Mountain Guides -
- Association of Professional Engineers and Geoscientists of Alberta -
- Banff Community High School - Banff Elementary School -
- Bow Valley Immigration Partnership - Bow Valley SPCA -
- Calgary Bridge Foundation for Youth -
- Calgary Local Immigration Partnership -
- Canmore Collegiate High School - Canmore Preschool Society -
- Canmore Nordic Centre Trail Hosts -
- Canyon West Condominium - Central Memorial High School -
- Crossfit Canmore - Discover Banff Tours - Elizabeth Rummel School -
- Exshaw Community Association - Exshaw School -
- Friends of Fish Creek - Graymont - Grizzly Paw Brewing Company -
- Lawrence Grassi Middle School - Ralph Conner Memorial United Church -
- Settlement Services in the Bow Valley -
- Société des Parents pour l'Éducation Francophone de Canmore -
- St. Michael's Anglican Church - Timberline Academy -
- Town of Canmore Big Fun Camps - Trail Sports -
- Unidad Educativa San Cristóbal -
- Unidad Educativa Nacional Galápagos -
- Unidad Educativa Tomás de Berlanga -

# SUPPORT THE BIOSPHERE INSTITUTE

The Biosphere Institute is a registered charity. We are funded entirely through donations, grants and contributions from the community.

To support us, please visit our website [www.biosphereinstitute.org/donate](http://www.biosphereinstitute.org/donate)

Or contact:

Suite 201, 600a 9th Street  
Canmore, Alberta T1W 2T2  
Phone: (403) 678-3445 x 4

Tax receipts for donations are provided.

## 2021 EXPENSE BREAKDOWN\*



Administration, Management & Fundraising	\$64,600
WildSmart	\$157,200
Shift: Climate Transitions	\$89,600
Future Leaders	\$95,000
<b>Total Expenses</b>	<b>\$406,400</b>

\*Based on unaudited financial statements for the year ending on 31 December 2021. Amounts rounded to the nearest hundred.