



Elk River Alliance 20 Annual Report 23

WORKING TOWARDS A HEALTHY ELK RIVER WATERSHED

OUR VISION

A healthy river ecosystem that sustains the Elk Valley for present and future generations

OUR MISSION

Operating since 2010, the Elk River Alliance is a community-based water charity that connects people to the Elk River using science, education and community collaboration to ensure sustainable stewardship of the Elk River watershed.

OUR GOALS

Facilitate dialogue, collaboration and community engagement across the watershed, undertaking education to promote environmental literacy and awareness

Collect, interpret and use scientific data to protect and restore the Elk River watershed

Promote safe and environmentally responsible use of the Elk River

Message from the Executive Director

The past year has been a demonstration in the importance of community to ERA's success. In early 2023, unexpected funding and capacity challenges threatened our restoration, monitoring, and outreach programs. Instead of scaling back, we reached out to our membership and volunteer network. ERA community volunteers have kept our market kiosks up, hydrometric stations running, and restoration efforts on track. We couldn't have done that without you: volunteer contributions totalled 50% of staff time, plus the countless hours of behind-the-scenes support from board members, local businesses, and partner organizations. As we continue to evolve and mature, I feel it's important not to lose track of who we are and what we stand for. The Elk River Alliance is an alliance of the community, pulling together everyone from individual river users to businesses to industry. The staff and I are very grateful to be a part of this, and we all look forward to another year of working with you to steward this amazing river. Thank you to the board, staff, partners, funders, and you, the river community for all of your support.

Message from the Chair

In the past year, the ERA Board set an ambitious workplan to advance our three big thrusts— Water Monitoring, Restoration, and Education & Outreach. We had our challenges, particularly some funding uncertainties, but in the end we met our organisational budget, and delivered on 71% of our program budget – with project delivery augmented by substantial volunteer involvement. We achieved a surplus of \$21,974 in our audited financial statement. This year we are focused on program and project delivery, extending fundraising, and strong organisational management. I personally would like to thank all the community members who stepped up to volunteer with our field work. I extend a great appreciation to our local and valley business supporters and partners, and our program funders at all levels. Finally, I embrace our hardworking staff and our volunteer Board members, Lee-Anne, Stella, Jason, Ashlee, Kevin – and Erin Webber who joined us with young fresh ideas, - and I thank those who stepped down this year – Patty and Danielle.



Membership 136 members

As a not-for-profit organization, the Elk River Alliance relies on member support to ensure that we represent our community. In 2023, we maintained an annual membership structure that was established in 2022. Memberships not only allow community members to guide ERA activities, but help to demonstrate to decision makers and funders that ERA has community support. As a thank you, ERA members get early bird access to the Elk River Discovery Camp. Additionally, ERA provides members with a custom sticker, postcard, and discounts on member events. If you would like to become a member, please visit elkriveralliance.ca/become-a-member.



Volunteers make our work possible

964 Volunteers | +4100 Volunteer Hours

In 2023, we've more than quadrupled community volunteer effort, a testament to our amazing community. Volunteers helped with diverse projects, such as streamside restoration, water quality and quantity monitoring, school education, community outreach, and the annual shoreline clean-up. ERA would not be able to make the impact it does without this amazing network of passionate community members. ERA volunteers are essential to Elk River Alliance work.



CWF: Canadian Conservation Corps

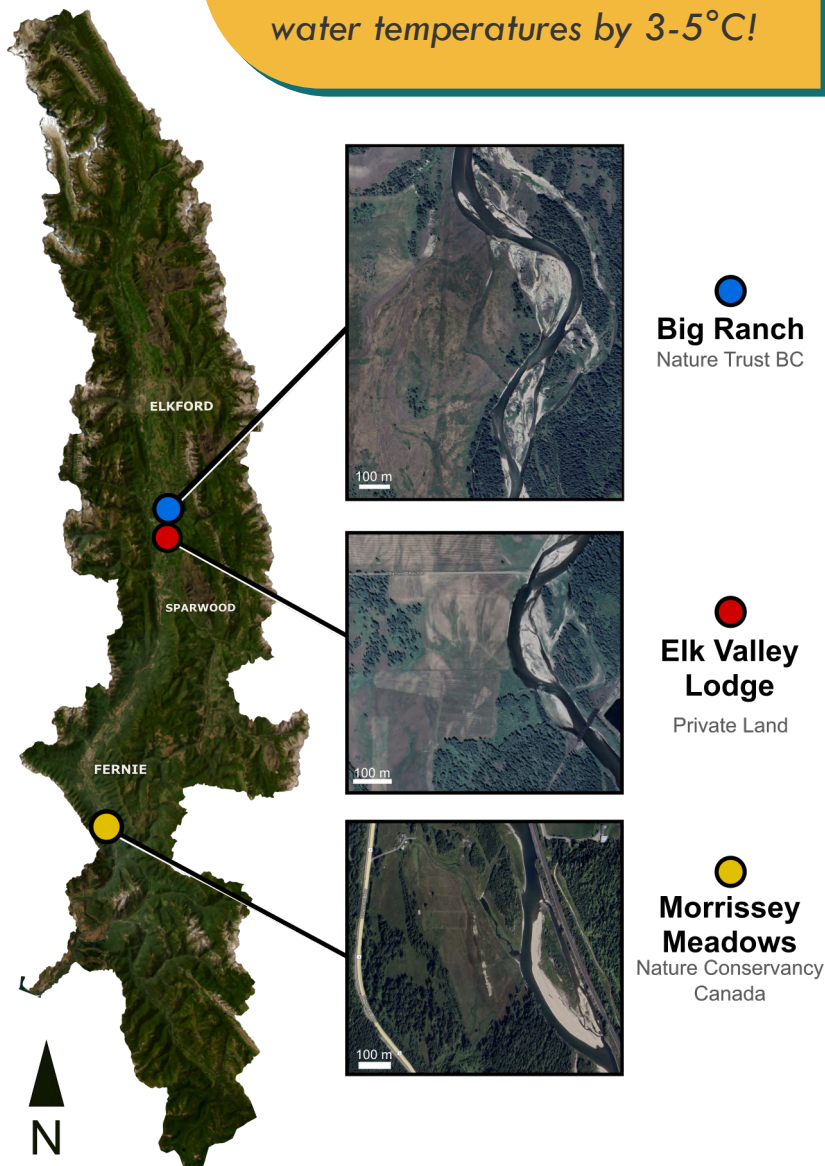
This year we had a huge help from the Canadian Wildlife Federation Canadian Conservation Corps program, which organises young volunteers to join not-for-profits around Canada for 3-month internships. Over the course of 2023, we hosted 6 volunteers who assisted with water quality monitoring, streamside restoration, education and outreach, and organisational assistance.

RESTORATION PROGRAM

To address the loss of floodplain forest, the Elk River Alliance is running a multi-year landscape-level restoration program to improve riparian areas impacted by agriculture and development. Cottonwoods are beautiful deciduous trees native to North America, well known for releasing fluffy seeds that fall like snowflakes in the early summer. They provide shade and food for animals, stabilise river banks, and slow down floodwaters. Unfortunately, land-use such as urban development, agriculture, and infrastructure often competes for space with cottonwood forests.

DID YOU KNOW?

Shade from trees can decrease water temperatures by 3-5°C!



Floodplain Survey

In order to assess historical impacts on Elk River cottonwood ecosystems, ERA partnered with Keefer Ecological Services to survey the Elk Valley floodplain. The results were concerning, indicating over half of historical cottonwood dominated forests in the Elk Valley have been lost to various land use activities. Predictably, the majority of ecosystem loss is concentrated in the Elkford-Sparwood-Fernie corridor. The outcomes of this survey have informed our current restoration efforts. Over the next few years, the survey will be built on to better understand cottonwood system dynamics.

2024 Plans

In 2024, ERA will focus on three restoration sites, aiming to plant an additional 11,000 livestakes, install over 1,500 m of elk exclusion fencing, and serve up an unreasonable amount of hotdogs for our hungry volunteers.

DID YOU KNOW?

Tree roots hold the soil in place preventing streambank erosion

998

Livestakes
Collected

369

Cottonwood
Trees Planted

900 m

Fencing
Installed

Funders | Columbia Basin Trust, Environment and Climate Change Canada, Fish and Wildlife Compensation Fund, Habitat Conservation Trust, TD Friends of the Environment Foundation, Fortis BC, Nature Conservancy Canada, Nature Trust of BC, Royal Bank of Canada

MONITORING PROGRAM

Temperature ● 19 Active Loggers

Changes in stream temperature guide biological processes, alter water chemistry, and shape biodiversity. Climate change threatens to significantly alter normal stream temperature regimes, affecting the ability of aquatic life to survive. ERA staff and volunteers are monitoring these potential changes by collecting long-term data on temperature in fish-bearing streams across the watershed. 2023 marked the 4th year of ERA's stream temperature monitoring project, with data from 19 sites across the Elk River Watershed monitored year-round at hourly intervals.

Funders | Columbia Basin Trust, RDEK, Canadian Wildlife Federation

CABIN ● 10 sites | 5 tributaries

In 2023, ERA continued its annual aquatic habitat health assessments, examining biological, chemical, and geophysical parameters at 10 sites on 5 non-mine affected tributary streams. Canadian Aquatic Biomonitoring Network (CABIN) protocols were used to compare these sites to similar "reference sites", unaffected by major human impacts, and provide information on the likelihood of habitat degradation at ERA's chosen sites. Four dedicated community volunteers participated in monitoring activities and received informal training.

Funders | Columbia Basin Trust, RDEK, Government of BC (BC Gaming), Real Estate Foundation of BC

Hydrometric ● 5 stations | 10 volunteers trained

Long-term stream flow and temperature data are essential in understanding the ongoing impacts of land-use and climate change. ERA has a network of hydrometric monitoring stations to measure water level and temperature at 15-minute intervals, and collects complementary manual water level and streamflow measurements. In 2023, ERA expanded this program to include 3 new sites – Alexander Creek, Morrissey Creek, and Coal Creek (in partnership with the City of Fernie). Furthering the mission of increasing watershed streamflow knowledge, Hydrometric Specialist Jonathon Jeffrey led a hydrometric training course for 10 volunteers to learn how to perform water level and in-stream flow measurements.

Funders | Columbia Basin Trust, RDEK, Canadian Wildlife Federation, Living Lakes Canada

Whirling Disease ● 5 new sites monitored

The *Tubifex tubifex* worm is a vital host species for *Myxobolus cerebralis*, the parasite responsible for whirling disease, which causes skeletal deformities and death in salmonid fish (i.e., trout and whitefish). Since 2022, ERA has been exploring the spatial extent of this host species in the watershed to better understand the potential risk of whirling disease spread. In 2023, this disease was identified in fish less than 150 km away from our watershed, in Yoho National Park. With the help of community volunteers, ERA sampled another 5 sites in the Elk Valley for the *Tubifex* worms based on the advice of local anglers. ERA will continue to engage the community through stewardship activities like this, to educate and contribute to limiting the spread of whirling disease.

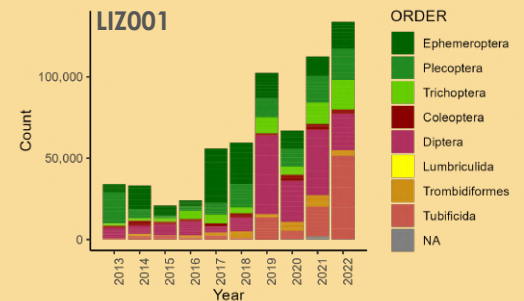
Funders | Freshwater Fisheries Society of BC, Columbia Basin Trust

Sediment 2 stations | 6 volunteers

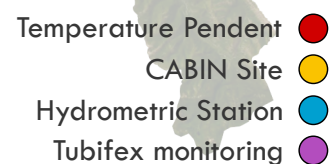
In 2023, ERA installed and monitored 2 clarity sensor prototypes – one at Lizard Creek and one in Maiden Lake – created by PhD candidate, Ed Clayton, at the University of Auckland, New Zealand. Ed's aim is to create simpler and more affordable sensors that will allow community groups, like the Elk River Alliance, to monitor sedimentation using clarity as a proxy. ERA's participation in this sensor testing allowed them to be tested across a wider variety of environments, much different from the ones near Auckland. Based on data collected from all of these sensors, Ed was able to refine his sensor design and ERA plans to deploy the new prototype in 2024.

Funders | Vancouver Foundation

Changes in Lizard Creek



ERA has monitored Lizard Creek biodiversity for over a decade. Changes of the abundance of some organisms may indicate a change in water quality. By looking at data collected through the CABIN program from the last 6 years at Lizard Creek, we see that there is an increase in the abundance of Tubificids (worms) and dipterans (flies). The specific cause of these changes in biodiversity has not been determined and merits further observation.



EDUCATION AND OUTREACH



Fairy Creek Signage

In collaboration with the City of Fernie, Fernie Trails Alliance, and Tourism Fernie, the Elk River Alliance designed new interpretive signage aiming to improve Elk Valley visitor awareness of our local ecosystem. The signs cover the mountain water cycle, common mountain-stream wildlife, forest fire and recovery, and Indigenous perspectives on the interconnectedness of nature with words by Councillor and Spiritual Advisor Kyle Shottanana.

Funders | Tourism Fernie

4
New
Signs



Interpretive Kiosks

In the summer, ERA operates regular stands at the Fernie Sunday Market, the Wednesday Socials, and the Mt. Fernie Provincial Park. Through these events, locals and visitors have the chance to learn about the watershed, play educational games, and explore tactile samples. Visit us to learn about water, buy merch, get a membership, or donate!

Funders | BC Parks, City of Fernie

27
Events
1600
People Reached



School Program Pilot

From January to March, Canadian Conservation Corps interns Asiyah and Aleshia were busy meeting with teachers and developing an educational program for grades 3, 7, 9 and 12. They developed lesson plans and engaging materials that covered landforms, water quality, data literacy, and environmental careers. Over the course of only two weeks they conducted 14 presentations. This pilot program hopes to set the stage for future in-class education programming.

Funders | Royal Bank of Canada

14
Lessons
221
Students Reached



Elk River Discovery Camp

This Summer Camp is a thrilling outdoor adventure experience where kids and teens learn about and explore our beautiful watershed. Activities include rafting, fishing, hiking, swimming, Indigenous knowledge learning, and aquatic biology. This year, we added an overnight component where older participants get to camp at Kikomun creek. To get early-bird access to camps make sure to become an ERA member!

Funders | Fernie Fox

6
Weeks
97
Campers

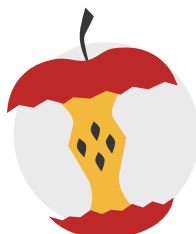


Shoreline Clean Up

This year we had the largest attendance ever of our Annual Shoreline Clean-Up! Every year, we have to move further and further from our set up location to collect trash, suggesting our cleaning efforts are making an impact. As a citizen science program, ERA asks volunteers to collect data on the trash collected. As always, cigarette butts constituted the highest proportion of the trash, followed by food wrappers, plastic pieces, beverage containers, and paper pieces.

Funders | Big Bang Bagels

580
Volunteers
7515
Items collected

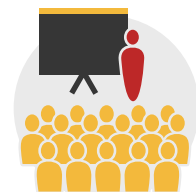


Elk Valley Flooding Risk

On March 16th, ERA hosted a Flood Risk and Mitigation information session to educate locals on the causes of flooding, and how flooding risks can be alleviated with better decision making. A key focus was the value of riparian vegetation for stabilising stream banks and slowing flood waters. The presentation can be viewed on the Elk River Alliance YouTube channel.

Funders | Fish and Wildlife Compensation Fund

48
Attendees



95
Social
Media Posts

2.9K
Social Media
Engagements

60.7K
Social Media
Impressions

6
Events
Hosted

197
Event
Attendees



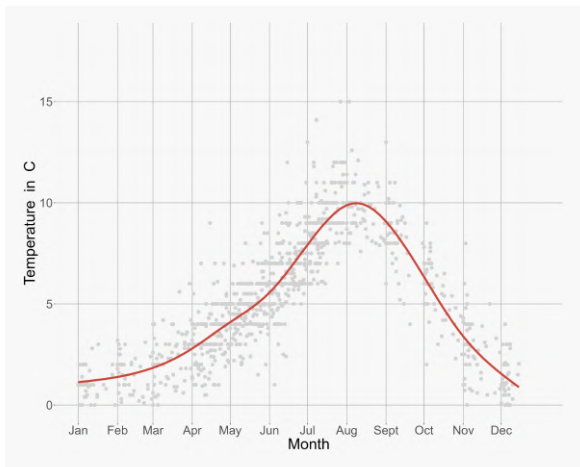
Elk River
Watershed
—
Qukin
?amak?is

Collaborative Monitoring Program

The Elk River Watershed Collaborative Monitoring Program is an effort to unite stakeholders to develop a cohesive understanding of watershed health. Addressing the issues faced in the watershed today requires data that cannot be collected by any one observing system – there is a need for an exchange of high-quality data across data collectors and data management programs. This demonstrates the need for a unified monitoring approach and unified open data portal to ensure that monitoring efforts contribute to building a holistic understanding of this watershed's health. The Elk River Alliance participates in the Collaborative as a signed Partner, and has acted as the Program Coordinator since 2021.

Public Engagement

The Collaborative sees public engagement as an essential step to creating a monitoring program that represents community values. The Collaborative hosts public events to educate the Elk Valley community on water matters, gives citizens the opportunity to ask questions, and seeks input on water quality concerns.



Data Consolidation

To develop an effective monitoring program, it's essential to understand what knowledge already exists and what the gaps in understanding are. Many organisations collect and release open-access data, and the Monitoring Collaborative is working to consolidate available data to get a big-picture understanding of what data says about the state of the watershed. With a large dataset, it will be possible to test hypotheses and determine necessary monitoring work.

Monitoring Collaborative Partners



Ministry of
Environment and
Climate Change Strategy



COMMUNITY FUNDRAISER HIGHLIGHTS

Local businesses have stepped up to support the Elk River Alliance by running fundraisers, and making donations or collecting contributions from customers. The funds raised are invaluable to keeping our lights on and supporting programs.



Big Bang Bagels: One for the River

For the past 3 years, Big Bang Bagels has donated \$1 for every disposable cup sold to the Elk River Alliance. ERA relies on this funding to run essential programs such as the Shoreline Clean-Up. Over the course of the last 3 years, Big Bang Bagels has raised over \$63,000 for the Elk River Alliance.

Canyon Raft: Raft Race

Canyon Raft has organised an annual raft race for over two decades. Canyon provides all equipment, guides, and all money raised is donated to the Elk River Alliance.

Fernie Taphouse: Meat Draw

The Fernie Taphouse runs a weekly meat draw to support diverse charities. In Fall/Winter 2023, ERA volunteers sold raffle tickets with the proceeds going to ERA.



Fernie Brewing Co: Cheers to Charity

Since 2013, Fernie Brewing Co. has donated the profits from the sample flight to local charities. This winter, ERA was the beneficiary of this program.

Fernie Chamber/Rotary Club: Griz Pins

In Spring of 2023, ERA volunteers helped sell Griz Pins for the annual Griz Days celebration. Proceeds from the sale of the pins go to local charities, and this year ERA was the lucky beneficiary.



Fernie Distillers: Saskatoon Berry Liqueur

For the past two years, Fernie Distillers has used saskatoon berries collected by ERA volunteers to create a delicious Foragers Saskatoon Berry Liqueur. From each bottle sold, \$5 goes to the Elk River Alliance.



Elk Valley Thrift Society

The thrift shop in Sparwood is sustained by a volunteer effort, and proceeds from items of sales get donated to local charities. ERA is grateful to be one of the beneficiaries.

Fernie Alpine Resort: Community Day

During the summer, Fernie Alpine Resort runs a day where chairlift tickets for mountain biking are by donation. We are grateful to FAR for creating the program, and to our community for supporting us with donations.

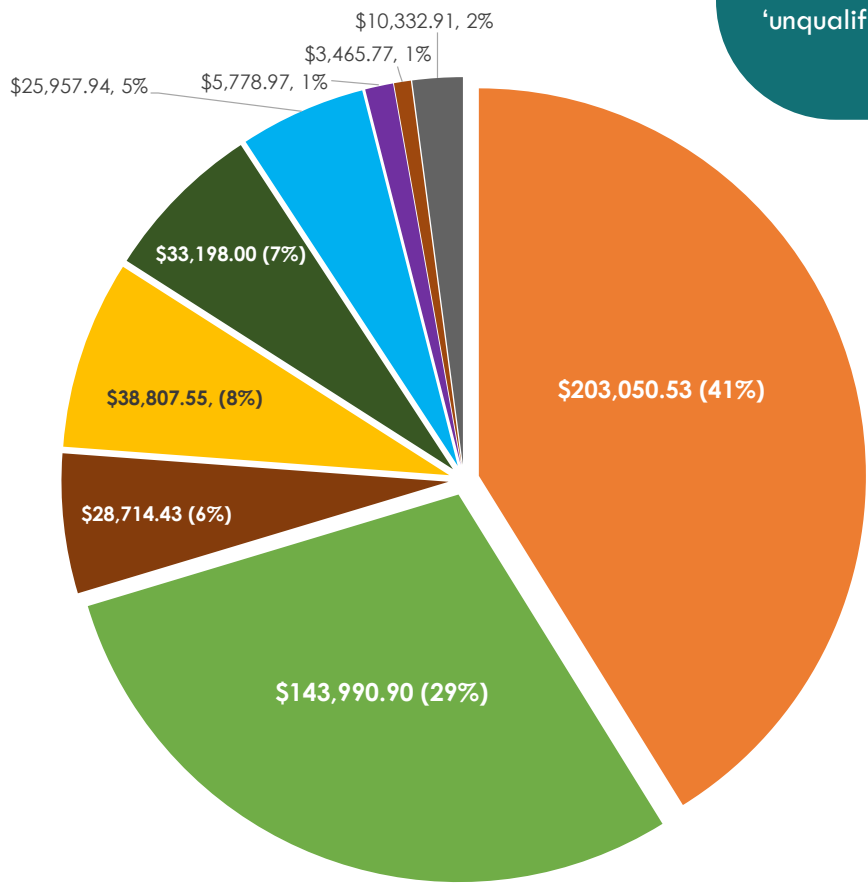


The Local Life: 5 for Fernie

The Local Life (Sharon Taylor Re/Max Elk Valley) donates 5% of proceeds from their business to local charities, with ERA being one of the beneficiaries.

FINANCIALS

The Elk River Alliance undergoes a voluntary annual audit to support funder confidence and identify areas for improvement. The 2023-24 financial year audit was conducted by GPI Chartered Professional Accountants, and resulted in an 'unqualified opinion' (clean report). Below is a breakdown of income sources and expenses for the audit period.



Income \$493,297

- Foundations, Trusts, and Other Non-profits
- Corporate Donations
- Provincial Grants
- Sale of Goods and Services
- Local Business Donations
- Federal Grants
- Private Donations
- Local Government
- Other

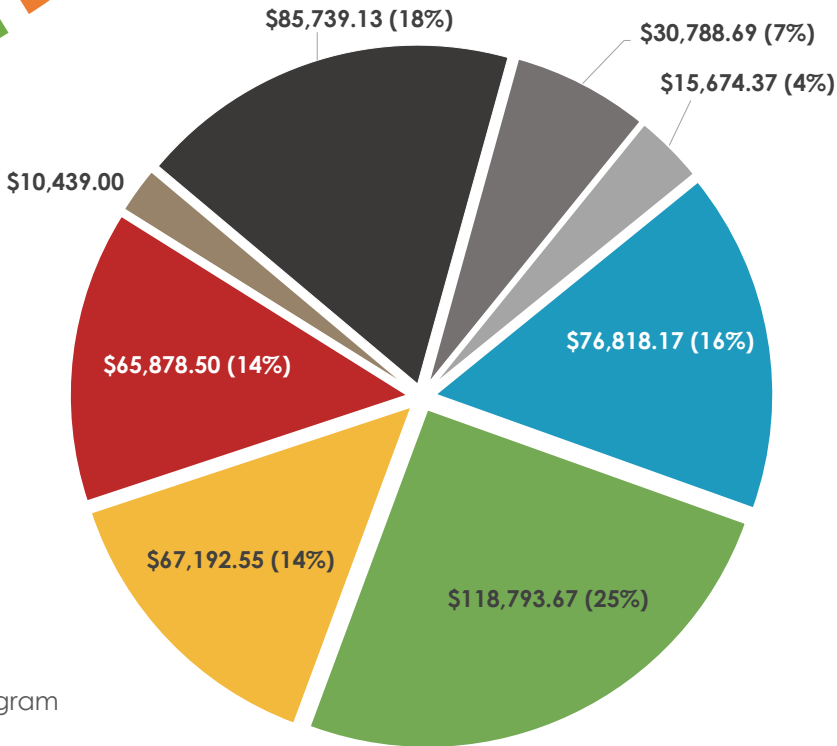
Expenses \$471,324

ORGANISATION

- Admin
- Governance
- Fundraising

PROGRAMS

- Community Based Water Monitoring
- Riparian and Floodplain Restoration
- Education and Engagement
- Elk River Watershed Collaborative Monitoring Program
- Program Development & Support



Reserves | 2023 Contribution= \$21,974.00

	Start of year 2023 Contribution/draw		End of Year Reserve	
Operational Reserve	\$ 12,000.00	\$ -	\$ 12,000.00	
Development Reserve	\$ 3,800.00	\$ 39,345.00	\$ 43,145.00	
Total reserves	\$ 15,800.00	\$ 39,345.00	\$ 55,145.00	

* Includes 2022 contribution

2023 STAFF



Chad Hughes

Executive Director



Kaileigh McCallum

Ecologist



Anne-Caroline Kroeger

Project Manager



Evgeni Matveev

Education & Outreach
Coordinator



Chris Bush

Restoration Technician



Daniss Jasmer

Camp Counsellor



Megan Bell

Camp Counsellor



Ayla Treadwell

Camp Director



Cynthia Fraser

Administrative Assistant



Jennifer O'Donnell

Bookkeeper



Ben Ingle

Donor Liaison

2023 BOARD OF DIRECTORS



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Chair



Ashley Jollymore

Vice Chair



Lee-Anne Walker

Founder & Director



Stella Swanson

Director



Patty Vadnais

Director



Jason Gravelle

Director



Kevin Atherton

Director



Danielle Wiess

Director



Erin Webber

Director

2023 Project Funders and Grantors



TD Friends of the
Environment
Foundation



vancouver
foundation



Future Launch



Freshwater Fisheries
Society of BC



FORTIS BC™



TC Energy



HABITAT CONSERVATION
TRUST FOUNDATION



2023 ERA Membership

Aina Buchwald
Alex Hickey
Ali Webb
Amanda Coon Sorfleet
Amy Cameron
Andrea Ormandy
Andrew Stock
Anna Schneider
Anne Halladay
Anya Harshan
Aric Corey
Becky Swanson
Brad Uphill
Brittany Ratay
Bronwyn Jones
Cameron Gillespie
Cara Pask
Carla Fraser
Carole Chorostecki
Carolyn von Lahr
Chad Hughes
Chalice Walker
Chandra Buchanan
Charlene White
Cheryl Paulson
Chris Bush
Christina Fraser
Christopher Cornish
Claire Hirst

Corinne Hoetmer
Daina Iliffe
Danielle Wiess
Dean Runzer
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Drake Carlyle
Eden MacGregor
Emma Wescott
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Erin Richan
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George Greene
Greg Lundmark
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Heather Ivany
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Janice Kron
Jared Marshall
Jason Trochesett
Jean-Raphael Lemieux
Jenn Swansburg
Jennifer Anderson
Jennifer Brown
Jennifer Lennon
Jennifer Tailor

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Jill Barclay
Jill Vaccars
Jon Unno
Joy Baxter
Judy McMahon
Julia Jeffery
Karen Bergman
Kate Walsh
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Katya Choroszewski
Kaylee Coates
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Logan Chorney
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Margo Saunders
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Matthew Line
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Mike Low
Mike Wrigglesworth
Miyoshi Fukada
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Rosie Francis
Sarai Ramirez Saldana
Scarlette Brady
Shawna LaPointe
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Sylvia Ayers
Taidhg Mulroy
Tanya Kaczmarek
Tara Hatch
Tayler Dawson
Teresa Martin
Tim Davis
Timo Einola
Tommy Sass
Tony Roy
Top-o
Trevor Haldene
Viviane Baril
Vrutika Gamit
Wendy Anne Cobbett
Wendy Fehr
Wendy Hogarth
Anonymous
Anonymous
Anonymous



2023 Donors and Sponsors

\$50,000+

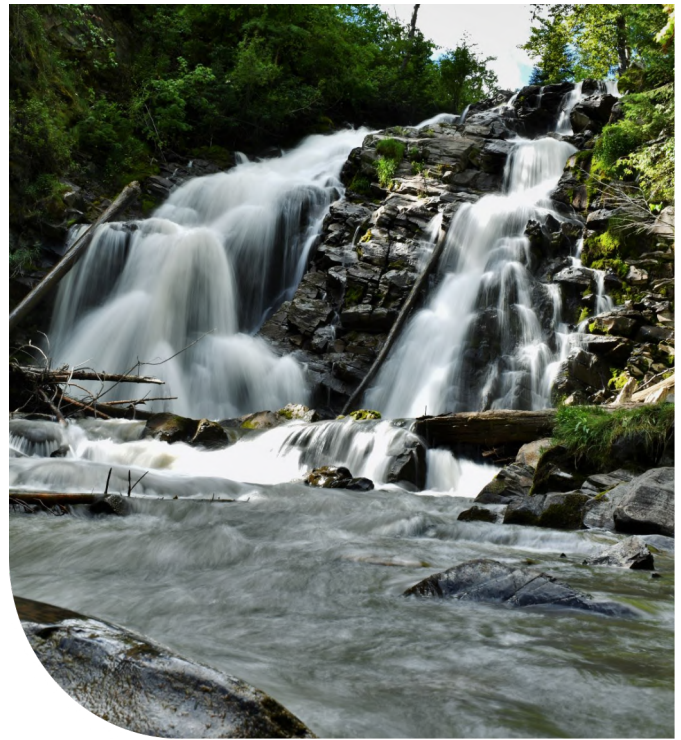
Teck

\$10,000+



\$5,000+

Dickhout
Family
Foundation



\$1,000+

Rotary Club of Fernie
Fernie Brewing Co.
Fernie Distillers Inc.

Stella Swanson
Elk Valley Thrift Shop
Durkin Legacy Fund

\$100+

Sharon Taylor
George Greene
Home Hardware
Alison Preece
Liftee Lodging
Board Stiff

Canadian Tire
GearHub
Johnson Controls
Eldho's Independent
Grocer
Save on Foods

Kootenay Fly Shop
Randy Keys
Tourism Fernie
Jonathan Unno
Fernie Chamber of
Commerce

Chad Hughes
Marilyn Belak
Jeph Virtue
Edwina Hanley
HRchitect

2023 Partners and Supporters

AmbassadorWILD
BC Ministry of Environment and Climate
Change Strategy
BC Parks
British Columbia Ministry of Forests
Canadian Wildlife Federation
Canyon Raft Company
Cariboo Carbon Solutions
CARO Analytical Services
City of Elkford
City of Fernie
Claris Media
Collective for Lower Elk Aquifer Restoration
College of the Rockies (Fernie Campus)
Cordillera Consulting
District of Sparwood

East Kootenay Invasive Species Council
Elk River Guiding Company
Elk Valley Regional Land Trust
Fernie Fix
Fernie Legion
Fernie Trails Alliance
GPI Chartered Professional Accountants
Jason Trochesett
Jon Bisset
Keefer Ecological Services
Kootenay Conservation Program
Kootenay Fly Shop
Ktunaxa Nation Council
Living Lakes Canada
Lotic Environmental
MacHydro

Mark Locki
Mugshots
Nature Conservancy Canada
Nature Trust of BC
Resorts of the Canadian Rockies
SKC Farm Fencing
SonTek (Xylem Inc.)
Stewart Rood
StillWater Consulting
The Fernie Hotel
Tourism Fernie
Trevor Haldane
Tunnel 49
Hajibabaei Lab (STREAM)
Flathead Rivers Alliance
Yaqit ʔaʔknuqʔi 'it