



Friends of Kootenay Lake

2020 *ANNUAL REPORT*

friendsofkootenaylake.ca

(250) 777-2744

#202B 330 Baker Street

Nelson, BC V1L 4H5

Thank you to our funders and supporters!



TD Friends of the
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INTRODUCTION



Formed in 2012, Friends of Kootenay Lake Stewardship Society is a not-for-profit organization dedicated to sustaining a healthy Kootenay Lake for future generations. Our mission is to improve the health and stewardship of Kootenay Lake through monitoring, habitat restoration, capacity building, and the empowerment of local communities, First Nations, and stakeholders.

Kootenay Lake is a large, long, narrow, ultra-oligotrophic lake bordered by the Selkirk and Purcell mountain ranges in southeastern British Columbia. The lake connects numerous quaint mountain communities and holds immense cultural, spiritual, environmental, economic, and recreational value. Kootenay Lake's sensitive aquatic ecosystems are impacted by fluctuating water levels, altered shorelines, urban runoff, littering and pollution, erosion and disturbance, low nutrients, and climate change. A local history rich in environmental advocacy has created a culture of concerned citizens who want to see the lake thrive for future generations. We believe that on the ground stewardship action and environmental education is the best way to build upon this legacy and continue to promote sustainability in an increasingly uncertain future.

This report provides a review of Friend of Kootenay Lake's activities and operations for the year 2020, covering January 1st to December 31st.

FOR THE LOVE OF THE LAKE



MESSAGE FROM THE PROGRAM MANAGER

There is no doubt that 2020 has brought a variety of challenges to the Kootenay Lake community, but hidden amongst the upheaval, there have also been many reasons for celebration. Now more than ever I have learned the importance of community and supporting my neighbours. I have seen this done in big and small ways such as picking up groceries for one another or sharing a masked smile on the sidewalk (a new skill developed in 2020). It has been inspiring to see how through this year of challenges the Kootenay Lake community has united to care for one another and our lake ecosystem.

Like all of you, Friends of Kootenay Lake's plans got shaken up in 2020 and we were obliged to re-evaluate our path, learn new skills, and get creative in order to continue doing the work we do. With all that we have accomplished this year, one thing is for certain: we could not have done this without the support of our community, funders, and partners across the Kootenay Lake Basin.

I am honored to have been at the helm of the Friends of Kootenay Lake Stewardship Society (FOKLSS) this past year. I am incredibly grateful to our dedicated board of directors, partner organizations, and advisor groups who have supported me in this role. It is with their guidance and expertise that we have been able to deliver high-quality environmental projects and programs even in the midst of a global pandemic. They all volunteered their time and energy to enrich our conservation programming and help FOKLSS to do impactful work.

FOKLSS has been active in the Kootenay Lake community since 2012. In that time, we have grown our membership to 86 active members, completed 2 wetland restoration projects, monitored 104 Osprey nests over 5 years, and made countless friends and new colleagues.

My vision for 2021 is for FOKLSS to continue its growth in membership and to be involved in science-based collaborative research that furthers our understanding of conservation action in our lake ecosystem. I hope to get to know more of you, our supporters, from all corners of the lake from Argenta to Creston over this next year.

For the Love the Lake,



Camille LeBlanc
Friends of Kootenay Lake Program Manager



OUR TEAM

TEAM MEMBERS

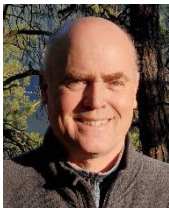


Camille LeBlanc
Program Manager



Kayla Tillapaugh
Assistant Program Manager

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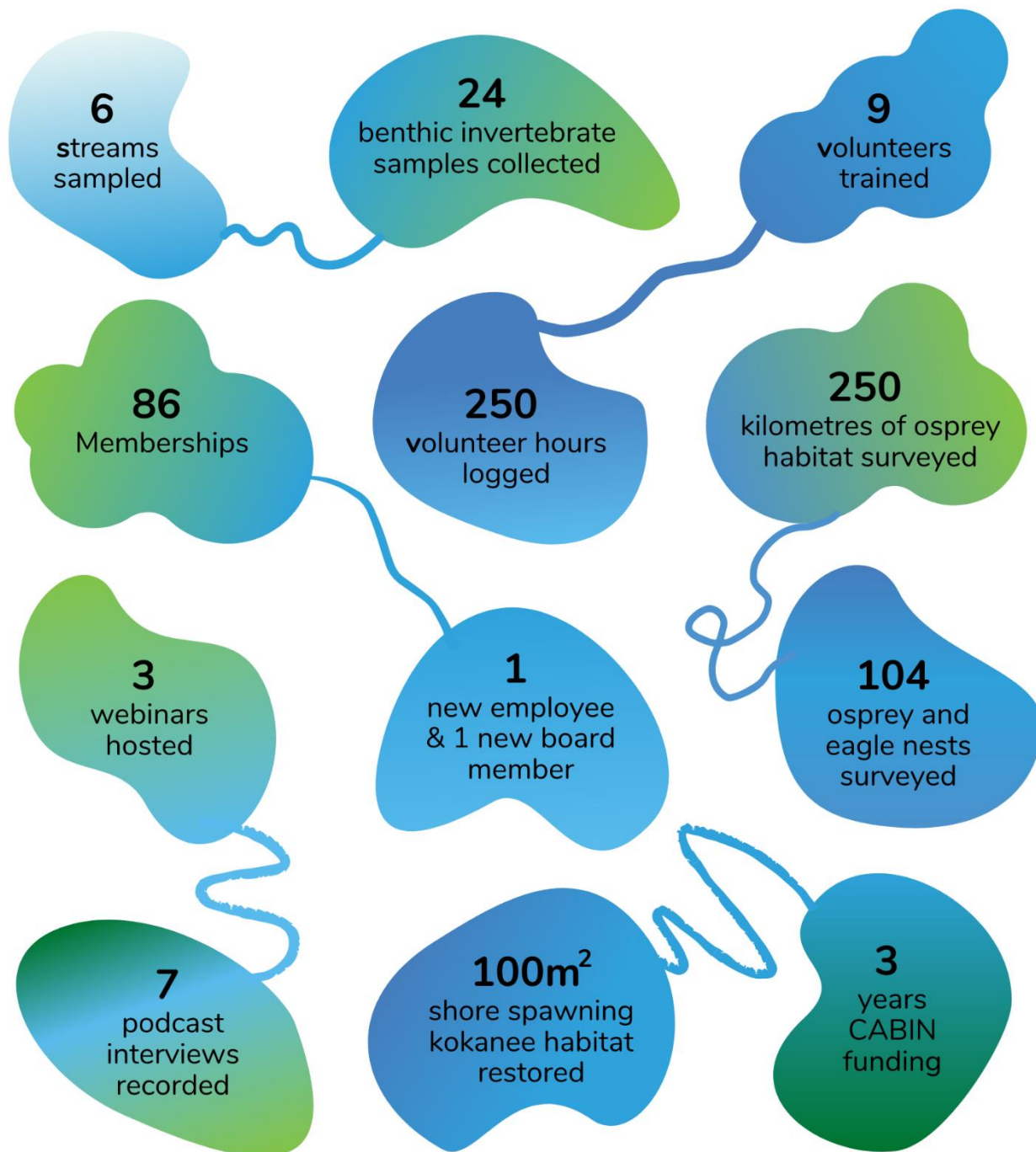


Elizabeth Quinn
Director



2020 HIGHLIGHTS

Despite the many challenges, 2020 was a successful year for the Friends of Kootenay Lake. Here are a few of the things we are most proud of...



OSPREY MONITORING

2020 marked year five of our Osprey Monitoring project.

BACKGROUND

The Osprey Monitoring Program focuses on improving information on the status of breeding ospreys in the Kootenay Lake area while training and empowering residents to monitor osprey activity.

Ospreys are excellent bioindicators and worldwide sentinel species for aquatic ecosystem health due to their sensitivity to environmental pollutants and exclusive diet of fish. As such, monitoring osprey breeding activity is crucial for assessing the impacts of Kootenay Lake fisheries declines and providing insight to possible presence of pollutants.

For the last 20 years, volunteers have monitored breeding Ospreys on Kootenay Lake annually from Balfour to Waneta. Throughout the five years of the Osprey Monitoring Program, FOKLSS has hosted numerous training workshops and expanded the study area to the main body of Kootenay Lake.

ACTIVITIES

On May 18th, 2020, we hosted an osprey monitoring webinar with Joanne Siderius, Senior Naturalist at Kokanee Creek Nature Centre. Check out the webinar recording at the following link:

<https://www.youtube.com/watch?v=Dkam5ZrwJ5U>

This year we monitored 104 Osprey and Bald Eagle nests on the North and South end of Kootenay Lake, covering around 250 kilometres of the main body of the lake by boat. Birds were observed at 54 nesting sites with many containing nestlings or fledglings. This year, 3 new Osprey nests were found and will be added to our growing data set.

FUNDERS



Columbia Basin **trust**

 **BRITISH COLUMBIA**
Community Gaming Grants



OUTCOMES

The expected results of the project are to increase information on the status of breeding ospreys on Kootenay Lake and to develop a dedicated team of volunteers with the knowledge and equipment required to conduct long-term monitoring. Long-term data sets recording Osprey breeding success can play a role in determining temporal trends in overall lake ecosystem health, while assisting in the recovery of this focal species on Kootenay Lake.



© Mara Mannaerts



WATER QUALITY MONITORING

2020 marked year one of our three-year CABIN Water Quality Monitoring project.

BACKGROUND

Most locals get their water from surface water sources such as creeks and streams. These water sources are extremely vulnerable as climatic and land use changes can impact water quality and quantity.

Research led by Dr. Martin Carver in the 2017 report “Water Monitoring and Climate in the Upper Columbia Basin, Summary of Current Status and Opportunities”, revealed that current water data is inadequate for managing and protecting the region’s water resources in response to climate change. The report made it clear that it is critical that we begin to fill data gaps through monitoring to improve our knowledge of water quality in the Basin (Carver, 2017).

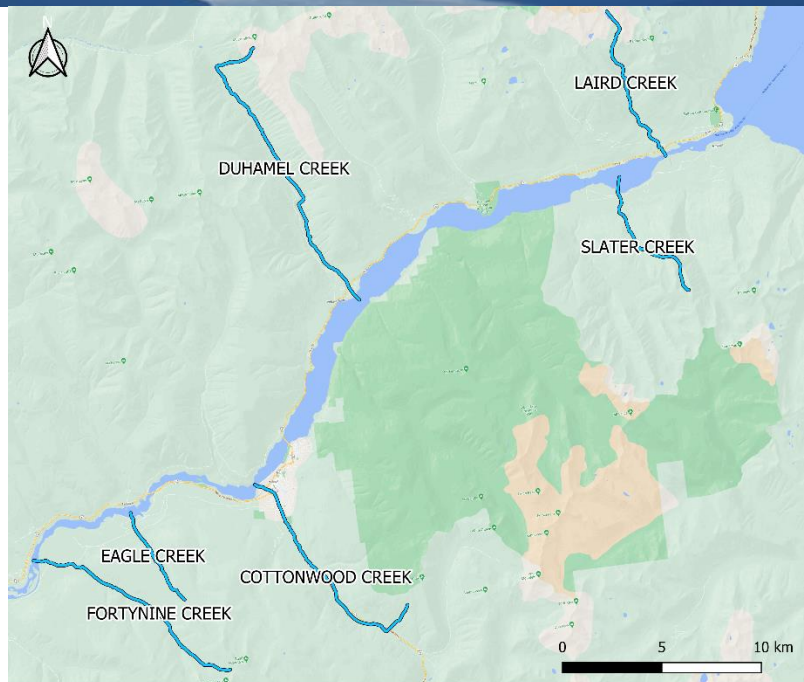
ACTIVITIES

On July 19th and 30th, 2020, our team in partnership with Living Lakes Canada and Selkirk College delivered a training workshop on the Canadian Aquatic Biomonitoring Network (CABIN) water quality monitoring protocol to seven volunteers. Participants received their CABIN Field Assistant certification. We then monitored six tributaries of Kootenay Lake with trained volunteers using the CABIN method in September and October 2020.

FUNDERS



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Streams monitored in 2020.

OUTCOMES

The data collected will be analyzed and uploaded to the national CABIN database where it will be accessible to interest groups such as federal, provincial, and local governments, community groups, and water resource managers in environmental management. This will be essential to help inform policy issues such as zoning legislation and policy changes such as the upcoming revamp of BC’s Forest Practices Board. This data will also help FOKLSS prioritize educational and restoration projects on Kootenay Lake tributaries that are impacted by human activities, thereby increasing climate awareness and resiliency at a local level.



HABITAT RESTORATION

2020 marked year one of our Shore Spawning Kokanee Habitat Restoration project.

BACKGROUND

Shore Spawning Kokanee are a genetically distinct population of Kokanee salmon in Kootenay Lake that have been impacted by habitat degradation leading to population decreases. Fluctuating water levels, changes to the shoreline including loss of adequate spawning substrate and impacts to the lake food web all contribute to the challenges Kokanee are facing in our region.

ACTIVITIES

On September 9th and 10th, 2020, 80 m³ of ideally sized spawning gravel was deposited along the foreshore of Kootenay Lake at McDonalds Landing Regional Park in attempt to encourage kokanee to spawn at an elevation unaffected by the fluctuating hydrograph. Gravel was then raked to eliminate clumping. Spawning activity was monitored weekly throughout the month of September and October by BC Ministry of FLNRORD Fisheries staff, FOKLSS staff and volunteer biologists.

On November 6th, capsules containing kokanee eggs and water temperature data loggers were installed within the gravel at varying depths, both above and below the low water mark with the help of ten volunteers.



OUTCOMES

Egg capsules will be retrieved in the spring of 2021 where we will assess egg-to-fry survival and analyze temperature data. The results of the spring assessment will provide insight into how spawning substrate, water depth and groundwater infiltration influence egg development and fry survival of shore spawning kokanee salmon. If the project is successful in decreasing the percentage of dewatered redds, we speculate this type of restoration project could be implemented at similar spawning sites around Kootenay Lake.

FUNDERS



LAKE EDUCATION

2020 marked year one of the Friends of Kootenay Lake Podcast Series project.



ACTIVITIES

In late September we began interviewing local experts, historians, advocates, artists, cultural leaders, recreationalists, and storytellers in various fields to be featured in our podcast series. We then released a call-out for local musicians to submit music to be used for the soundtracks. Accompanied by pieces of music created by local artists, each episode serves as a celebration of Kootenay Lake culture, people, and talent.

The podcast was officially launched on January 5th, 2021 on all popular audio platforms. We will continue releasing episodes every couple of weeks into the foreseeable future.

Listen here:

<https://friendsofkootenaylake.podbean.com/>

FUNDERS



BACKGROUND

In 2016 we conducted a Community Values Survey that identified access to knowledge and information as a local gap and inhibitor to addressing lake concerns. With our education programming put on halt considering COVID-19, we devised an alternative method of offering lake education to our community.

OUTCOMES

The goal of creating this podcast is to establish an informative and engaging hub for information sharing where listeners can learn about work being done in the Kootenay Lake area from anywhere. This podcast is a community-based project that utilizes the collective knowledge of our community to expand local education opportunities.



OTHER EDUCATION ACTIVITIES

On July 19th, 2020, Nature Kids joined our Program Manager at the Duck Bay Wetland in Nelson. We learned a lot about wetland ecosystems, including their role, and importance. The kids also got to have a go testing out some water quality equipment. The Duck Bay Wetland is an important feature as it naturally filters water before it flows into Kootenay Lake, as well as serves as a hub for many wildlife species.



VOLUNTEERING

In 2020 we helped facilitate a volunteer foreshore cleanup and did some much-needed weeding!

FORESHORE CLEAN-UP

On October 17, 2020 we conducted a fore-shore clean-up of the excessive litter build-up along the lakebed beneath the Prestige Marina in Nelson, BC. Volunteer scuba divers retrieved items from the lakebed, hooking them up to be hauled to the surface and disposed of in a donated receptacle. Some of the items of note were two tricycles, five car tires, two boat windshields, five chairs, numerous articles of clothing, one small boat and numerous cans and lighters. This event was an incredible showcase of the power of community. We hauled away a lot of garbage and made lasting memories while doing it!

SUPPORTERS

- Arcright Welding
- Backroads Brewing
- BC Ministry of FLRNORD
- City of Nelson
- Columbia Basin Trust
- Kootenay Lake Sailing Association
- Kootenay Pedalwheelers
- Mike Sagal
- Mountain Bin
- Thors Pizzeria
- West Kootenay Boating Association



WEEDING AT DUCK BAY

On July 24th, 2020, a FOKLSS team member accompanied by two volunteers took on some weeding at the Duck Bay restored wetland site in Nelson's Lakeside Park.

SPECIAL MENTIONS!

Volunteers are a vital component to our society – we would not have the capacity to undertake these projects without them. Local volunteers are making a massive contribution to the protection, restoration, and stewardship of Kootenay Lake, and we want to take a moment to highlight the fantastic work of a select few who stood out this year.

THANK YOU:

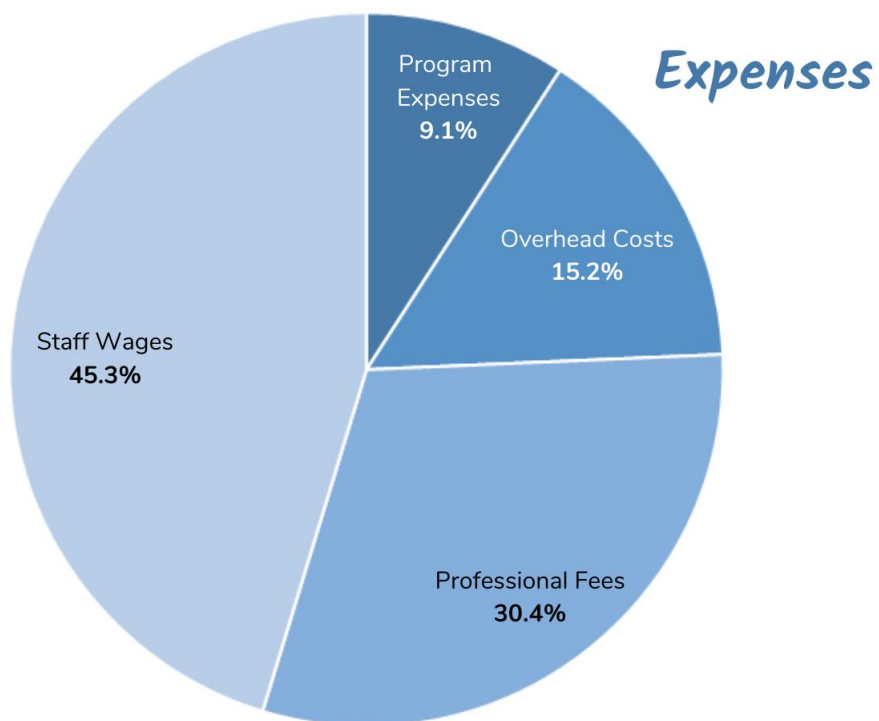
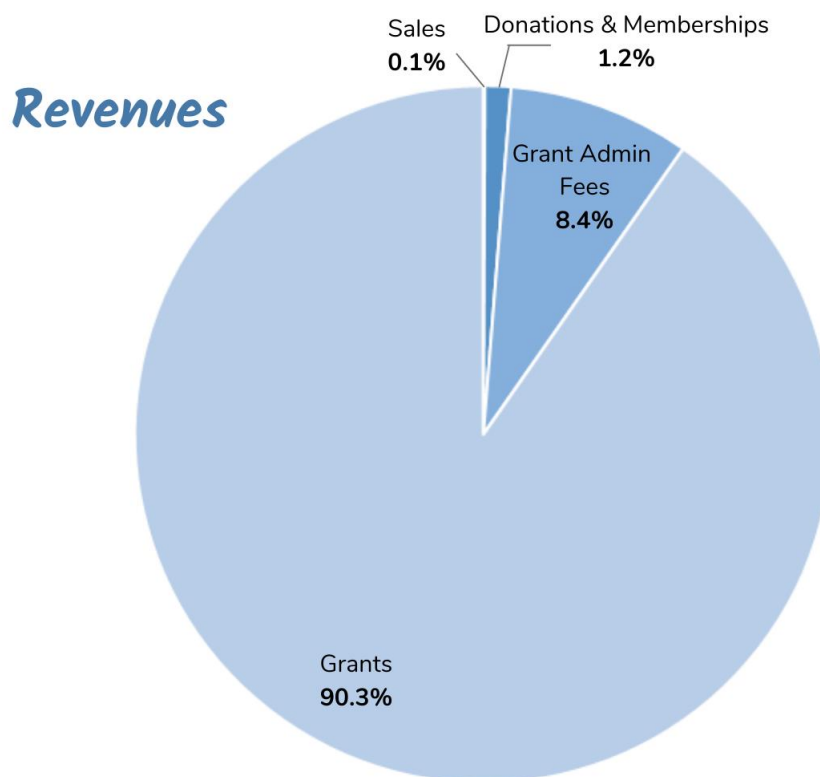
Sarah Beaudoin	Saxon Bowick
Jeff Burrows	David Cunningham
Gary Munro	Joanne Siderius

We appreciate you so much!

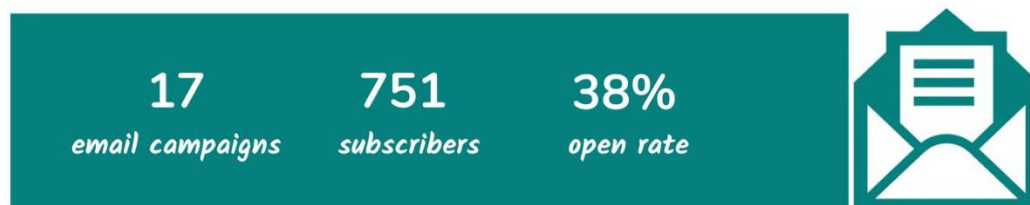







FINANCIALS/BUDGET PROFILE

Financial overview covers January 1, 2020 to December 31, 2020



COMMUNICATIONS PROFILE



-  facebook.com/friendsofkootenaylake
-  instagram.com/friendsofkootenaylake/
-  twitter.com/FOKL_
-  info@friendsofkootenaylake.com
-  friendsofkootenaylake.com



ACKNOWLEDGMENTS

We would like to thank and acknowledge our partners, mentors and collaborators:

Aqua Environmental Associates

BC Ministry of FLNRORD Fisheries

BC Ministry of Transportation and
Infrastructure

BC Wildlife Federation

Central Kootenay Invasive Species Society

City of Nelson

Creston Valley Wildlife Management Area

Graham Marine Construction

Idaho Fish & Game

Integrated Ecological Research

Kokanee Creek Nature Centre

Kootenay Co-op

Kootenay Lake Partnership

Kootenay Lake Sailing Association

Living Lakes Canada

Masse Environmental Consulting

Nelson Kootenay Lake Tourism

Okanagan Nation Alliance

Regional District of Central Kootenay

Salmo Watershed Streamkeepers

Selkirk College

Shuswap Indian Band

Slocan River Streamkeepers

Spring Creative Design

West Kootenay Boating Association

West Kootenay Ecosociety

Wildsight

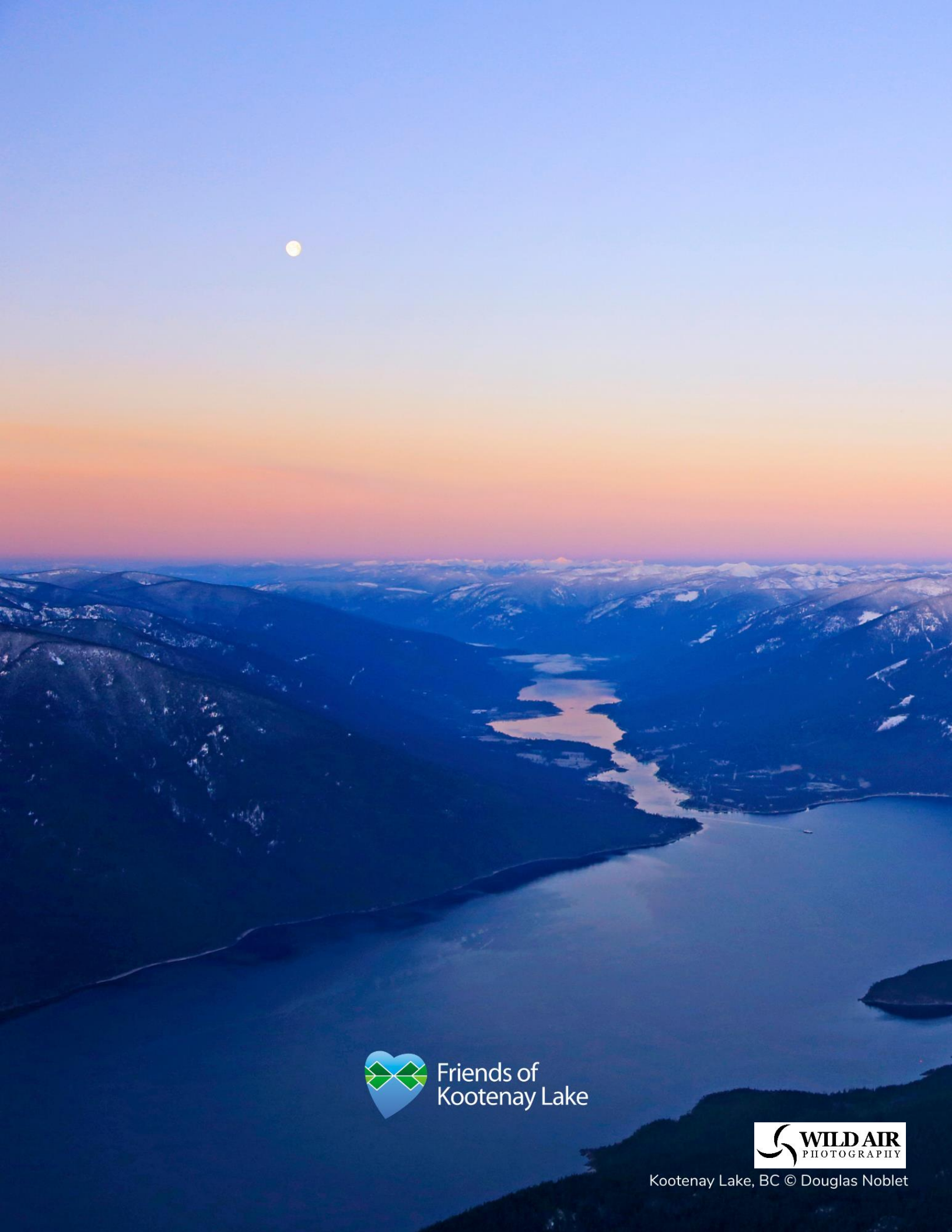
Yaqan Nukiy Band

Yaqan Nukiy/ Lower Kootenay Band

Yellowhead Road and Bridge

THANK YOU!





Friends of
Kootenay Lake



Kootenay Lake, BC © Douglas Noblet