



Regional District of Central Kootenay
COMMUNITY SUSTAINABLE LIVING ADVISORY COMMITTEE
Open Meeting Agenda

Date: Tuesday, October 17, 2023
Time: 1:00 pm
Location: RDCK Board Room, 202 Lakeside Dr., Nelson, BC

Directors will have the opportunity to participate in the meeting electronically. Proceedings are open to the public.

Pages

1. WEBEX REMOTE MEETING INFO

To promote openness, transparency and provide accessibility to the public we provide the ability to attend all RDCK meetings in-person or remote (hybrid model).

Meeting Time:

1:00 PM | Pacific Time (US & Canada) | 2 hrs

Join by Video:

<https://nelsonho.webex.com/nelsonho/j.php?MTID=m7990ecf03da313af6ac5e9c7123d9688>

Join by Phone:

[1-844-426-4405](tel:1-844-426-4405), [27709706232](tel:27709706232)## Canada Toll Free

[+1-604-449-3026](tel:+1-604-449-3026), [27709706232](tel:27709706232)## Canada Toll (Vancouver)

Meeting Number (access code): 2770 970 6232

Meeting Password: puXVMjeV367

In-Person Location: RDCK Boardroom | 202 Lakeside Drive | Nelson, BC

2. CALL TO ORDER

Chair Popoff called the meeting to order at ____ p.m.

3. TRADITIONAL LANDS ACKNOWLEDGEMENT STATEMENT

We acknowledge and respect the indigenous peoples within whose traditional lands we are meeting today.

4. ADOPTION OF AGENDA

RECOMMENDATION:

The Agenda for the October 17, 2023 Community Sustainable Living Advisory Committee meeting be adopted as circulated.

5. RECEIPT OF MINUTES 4 - 7
The June 13, 2023 Community Sustainable Living advisory Committee minutes, have been received.

6. DELEGATE 8 - 26
Kate Mizenka, from Elk Root Conservation Farm Society will present Regenerative Educational Community Food Gardens to the Committee.

7. STAFF REPORTS

7.1 FOR INFORMATION: UPDATE ON SUSTAINABILITY SERVICE PROJECTS & AREAS OF ACTIVITY 27 - 39
The Committee Report dated October 17, 2023 from Paris Marshall Smith, Sustainability Planner, has been received.

8. NEW BUSINESS

8.1 FOR INFORMATION: REVIEW OF FUNDING PROPOSALS 40 - 44
The CSLAC Project Funding Overview presentation from Paris Marshall Smith, Sustainability Planner, has been received.

8.1.1 Elk Root Conservation Regenerative Educational Community Food Gardens 45 - 85
The Committee Report dated September 26, 2023 from Paris Marshall Smith, Sustainability Planner, has been received.

8.1.2 Living Lakes Ground Water Monitoring 86 - 115
The Committee Report dated November 10, 2022 from Paris Marshall Smith, Sustainability Planner, has been received.

8.1.3 Friends of Kootenay Lake: Kootenay Lake Watershed Monitoring Program 116 - 153
The Committee Report dated November 10, 2022 from Paris Marshall Smith, Sustainability Planner, has been received.

8.2 FOR INFORMATION: CSLAC FINANCIAL STATEMENT UPDATE AND REVIEW 154
The CSLAC 2023 Draft Financial Statement, has been received.

9. PUBLIC TIME

The Chair will call for questions from the public and members of the media at _____ p.m.

10. NEXT MEETING

The next Community Sustainable Living Advisory Committee meeting is scheduled for December 17, 2023 at 1:00 p.m.

11. ADJOURNMENT

RECOMMENDATION:

The Community Sustainable Living Advisory Committee meeting be adjourned at _____ p.m.



**Regional District of Central Kootenay
COMMUNITY SUSTAINABLE LIVING ADVISORY COMMITTEE
Open Meeting Minutes**

Tuesday, June 13, 2023 at 1:00 p.m.
RDCK Hybrid Meeting

COMMITTEE MEMBERS PRESENT

Chair W. Popoff	Electoral Area H	In-person
Director G. Jackman	Electoral Area A	In-person
Director R. Tierney	Electoral Area B	
Director K. Vandenberghe	Electoral Area C	In-person
Director A. Watson	Electoral Area D	
Director C. Graham	Electoral Area E	
Director H. Cunningham	Electoral Area G	In-person
Director A. Davidoff	Electoral Area I	
Alt. Director R. Smith	Electoral Area J	In-person
Alt. Director P. Peterson	Electoral Area K	In-person
Director S. Hewat	Village of Kaslo	
Director C. Ferguson	Village of Silverton	

COMMITTEE MEMBERS ABSENT

Director T. Newell	Electoral Area F
Director H. Hanegraaf	Electoral Area J
Director T. Weatherhead	Electoral Area K

STAFF PRESENT

S. Horn	Chief Administrative Officer
S. Sudan	General Manager of Development and Community Sustainability Services
P. Marshall-Smith	Sustainability Planner
S. Kindred	Administrative Assistant, Development & Community Sustainability Services

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Meeting Time:

1:00 PM | (UTC-08:00) Pacific Time (US & Canada) | 2 hrs

Join by Video:

<https://nelsonho.webex.com/nelsonho/j.php?MTID=m7107993bcc32552f4b408f9edec4ea90>

Join by Phone:

1-844-426-4405 Canada Toll Free

+1-604-449-3026 Canada Toll (Vancouver)

Meeting Number (access code): 2773 081 0968

Meeting Password: wJmaT59JMD4

In-Person Location: RDCK Boardroom, 202 Lakeside Drive, Nelson, BC

2. CALL TO ORDER

Chair Popoff called the meeting to order at 1:04 p.m.

3. TRADITIONAL LANDS ACKNOWLEDGEMENT STATEMENT

We acknowledge and respect the indigenous peoples within whose traditional lands we are meeting today.

4. ADOPTION OF AGENDA

Moved and seconded,

And Resolved:

The Agenda for the June 13, 2023 Community Sustainable Living Advisory Committee meeting be adopted as circulated.

Carried

5. RECEIPT OF MINUTES

The April 18, 2023 Community Sustainable Living Advisory Committee minutes, have been received.

6. STAFF REPORT

6.1 FOR INFORMATION: UPDATE ON SUSTAINABILITY SERVICE PROJECTS & AREAS OF ACTIVITY

The Staff Update dated June 13, 2023 from Paris Marshall Smith, Sustainability Planner, has been received.

7. NEW BUSINESS

7.1 FOR DISCUSSION: COMMUNITY FOOD PRODUCTION IN KRESTOVA

This Item has been removed.

7.2 FOR DISCUSSION: NATURAL ASSET MANAGEMENT PLAN FOR THE QUARTZ CREEK WATERSHED

The Committee Report dated May 19, 2023 from Paris Marshall Smith, Sustainability Planner, has been received.

Moved and seconded,
And Resolved that it be recommended to the Board:

That the Board direct staff to complete Step 2 of Community Sustainable Living Advisory Committee project evaluation to create a natural asset management plan for the Quartz Creek Watershed prepare a workplan and budget.

Carried

8. PUBLIC TIME

The Chair called for questions from the public and members of the media at 1:36 p.m.

9. NEXT MEETING

The next Community Sustainable Living Advisory committee meeting is scheduled for August 15, 2023 at 1:00 p.m.

10. IN CAMERA

10.1 MEETING CLOSED TO THE PUBLIC

Moved and seconded,
And Resolved:

In the opinion of the Board - and, in accordance with Section 90 of the Community Charter – the public interest so requires that persons other than DIRECTORS, ALTERNATE DIRECTORS, DELEGATIONS AND STAFF be excluded from the meeting; AND FURTHER, in accordance with Section 90 of the Community Charter, the meeting is to be closed on the basis(es) identified in the following Subsections:

90. (1) A part of a council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

(e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality;

Carried

10.2 RECESS OF OPEN MEETING

Moved and seconded,
And Resolved:

The Open Meeting be recessed at 1:37 p.m. in order to conduct the Closed In Camera meeting.

Carried

11. ADJOURNMENT

Moved and seconded,
And Resolved:

The Community Sustainable Living Advisory Service meeting be adjourned at 1:56 p.m.

Carried

Walter Popoff, Chair



Elk Root
conservation

Regenerative Educational Community Food Gardens

PROJECT OVERVIEW

Prepared for RDCK Community Sustainable Living Advisory Committee

ACKNOWLEDGEMENT

Elk Root Conservation is located adjacent to the ancestral Sinixt village site of n'kʔáwx̄tən, in Sinixt təm̄x̄wúlaʔx̄w̄ at the confluence of the Slocan River and Little Slocan River in Vallican, British Columbia.

We acknowledge and respect all the Indigenous peoples within whose traditional lands we are privileged to live and work.



YOUR PRESENTER

Kate Mizenka

LL.B, BA adv.

ERC Board Chair | Director of Farm, Orchard & Apiary



- Founder of Elk Root Conservation Farm Society
- Retired lawyer & business owner
 - Traumatic brain injury survivor
- Advocate of organic regenerative agriculture & pollinator conservation
 - Recipient of the Suzy Hamilton Legacy Fund Award in recognition female-identified environmental activism
- Designer of ERC's educational demonstration gardens
(pollinator, native plant, food forest)
- Educator, expert beekeeper & 'beyond' organic regenerative grower
- Creator of the Sustainable Apiary Model (SAM)

ELK ROOT CONSERVATION FARM SOCIETY

Slocan Valley, Vallican BC | BC Not-for-Profit Society

Who We Are

- Certified organic educational demonstration farm
- Home to:
 - Regenerative Educational Community Food Garden (RECFG)
 - Apiary, pollinator gardens, food forest, heirloom orchard
 - Local Eco-type native plant nursery & seed library

Not-For-Profit Mission

- Alleviate food insecurity
- Inspire & support ecological stewardship
 - inclusionary & empowering approach
 - research, innovation and hands-on education



The RECFG @ ERC

'Bee' Inspired...by the Project

- **Relevance**
- **Effectiveness**
- **Efficiency**
- **Impact**
- **Sustainability**
- **Participation**
- **Responsibility**
- **Funding**
(our ask of CSLAC)



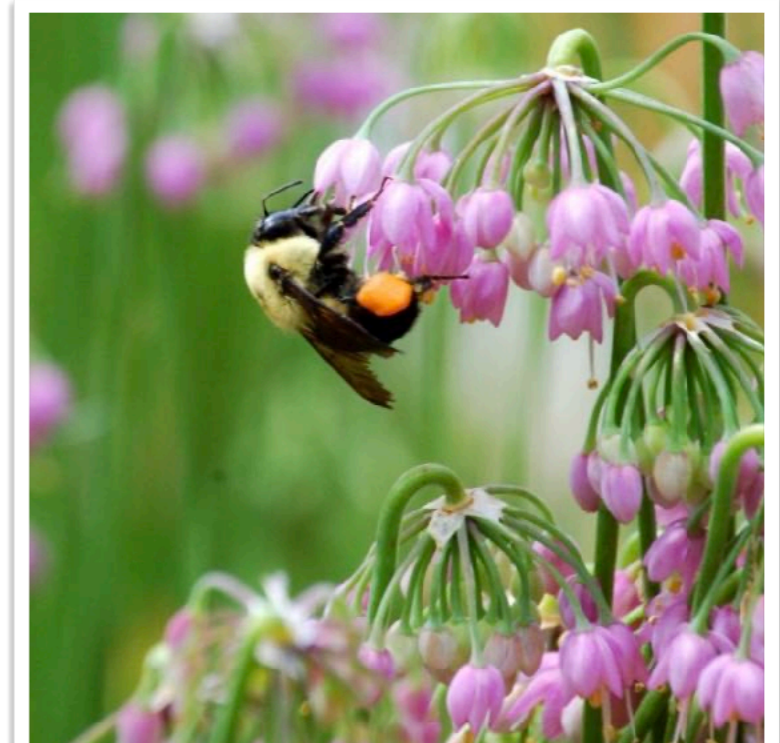
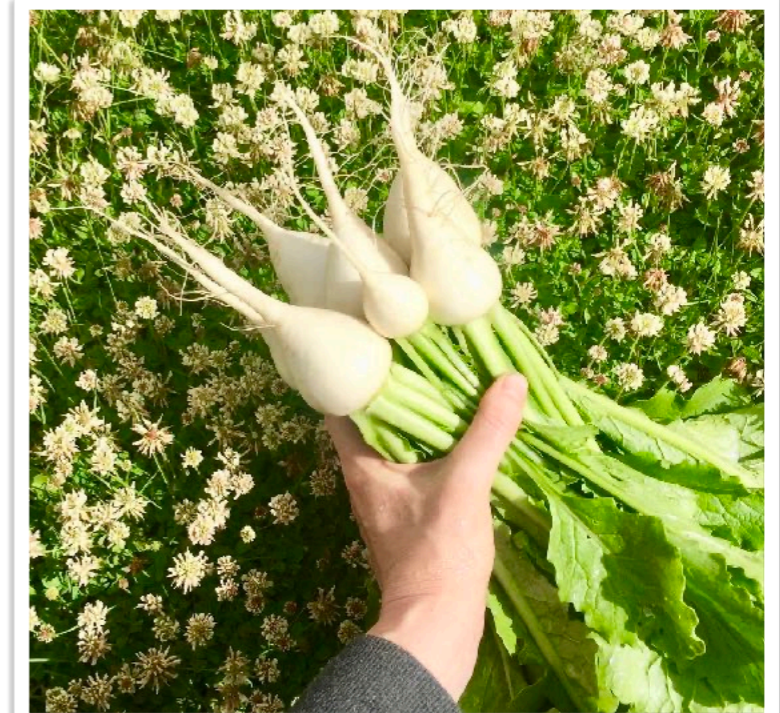
RELEVANCE

1. What Will the Project Do?

Primary Project Goals:

1. Address local food insecurity of at-risk populations in the RDCK
 - supply vulnerable community members with organically grown food for free;
 - offer community garden plots and expert instruction to learn to grow healthy food at home;
2. Recovering local food that is currently being wasted
3. Support local food producers to adapt to climate action initiatives proposed by the RDCK.

- **Exponentially Expand ERC's Capacity to Grow:** healthy organic food
- **Climate Action:** Improve growing efficiencies, reduce fossil fuel, address water usage levels and divert food waste
- **Living Lab:** leading agri-tech research 'think tank'



RELEVANCE cont.



2. How will this be achieved?

- **Community and Demonstraton Garden Plots** for group education
- **High Production Plots** to feed at-risk community members
- **Research & Innovation Plots** collaborate with producers to test climate adaptive strategies for sustainable production

Financial: Revenue generated from market and farm stand sales will support the pilot project to fund Food Box Program.

ALL revenue from sales will be reinvested back into the project



3. Importance to our community

- **Food security is a MAJOR concern** of RDCK constituents
- **Elevate local food production systems.** Utilize the RECFG model to address the need for a **sustainable** and **equitable** approach to producing, storing and delivering locally produced food in the RDCK.
- **Provide physical, mental and spiritual nourishment for vulnerable community members** while supporting regional food producers to successfully adapt to the ever-changing climate.

RELEVANCE cont.

4. Why is the RDCK best suited to deliver this project?

- Local government is the logical partner to support ERC to implement a **community-level local food security model**
- Partnership between the RDCK and ERC to pilot the RECFG project will:
 - facilitate the RDCK to collaborate from food production commencement
 - invite RDCK to participate in the assessment and decision making process for future sites
 - potentially provide public land access to support regional project expansion

5. Where will the project take place?

At Elk Root Conservation's Educational Demonstration Farm in Vallican, BC! WHY?

- **Funding support** for infrastructure on-site for the project
- **Secure Long-term Lease & Expert Team**
- **Stress-free** environment to pilot the project
- **Regional Expansion Plan:** to service all areas of the RDCK

6. How many people will directly benefit?

- After project completion, we estimate a **15,000 kg/year** weight in food production that will serve 3500+ community members



EFFECTIVENESS

What RDCK structures, systems, issues or opportunities will be addressed?

Advancement of RDCK Sustainability Objectives

Food & Agriculture | Climate Change



RECFG MODEL of Local Food Security - Let's Bring Community TOGETHER

An on-the-ground and highly visible example of the positive impact that can be made by the people for the people when we come together at the community level with RDCK support to advance sustainability objectives

HOW ERC will support advancement of RDCK sustainability objectives through this project:

- ERC is a recognized and respected leader in the community in these areas
- Inclusionary equitable reputation, positive track record, expert team
- Community support



EFFECTIVENESS Con't

CLIMATE ACTION

Project Support From and For Farmers



"[ERC's] project and plans to regionally support local food security by producing food and educational opportunities for vulnerable community members and support local farmers through research, innovation and education...will give farmer's support they need to take climate adaption measures that is currently lacking in the RDCK" - **Matthew Carr, Owner**

"Having Elk Root Conservation as a regional resource will allow us to collaborate on [developing native pollinator habit] and I believe support from the RDCK is critical to building this local competency and developing local production resources for commercial growers in our region" - **Danny Turner, Owner**



EFFICIENCY

Objectives and Supporting Activities of this Project

OBJECTIVE 1:

Increase food production at ERC to feed vulnerable community members.

Supporting Activity 1 - Install infrastructure to produce food and extend the growing season through appropriate crop choices, food preservation, storage and distribution

OBJECTIVE 2: Provide educational opportunities to community members and local producers to increase food production literacy and sustainable organic regenerative food production in the region.

Supporting Activity 2 - Community organizations supporting at-risk community members will be invited to apply for a dedicated garden plot for their members. Our team will help participants choose what to grow, how to start seeds, transplant, care for, and harvest their produce.

OBJECTIVE 3: Expansion of the ERC Paid Youth Internship Program to include management training opportunities to provide permanent employment opportunities for youth in the RDCK.

Supporting Activity 3 - Recruit and hire three on-farm youth manager interns who will be mentored and trained to become long-term management leaders on-farm for the RECFG project.



Youth Manager Interns:
Brendon & Angeline



IMPACT

How will this project influence RDCK systems, structures and or processes in order to create change?

The RECFG project is designed to operate as a working system complete with structures and **processes that will create transformative social, economic, and environmental changes in the behaviour of RDCK stakeholders** to create a sustainable and secure food production model.

SUSTAINABILITY

1. How will this project contribute to advancing sustainability at the RDCK by addressing its **SOCIAL, ECONOMIC, CULTURAL and ENVIRONMENTAL** priorities?

Social: Community gardens, RECFG hands-on learning, Bee Safaris...

Economic: Economic relief through food access & recovery, job creation, internship programs...

Cultural: Indigenous cultural knowledge sharing via reconnection to land...

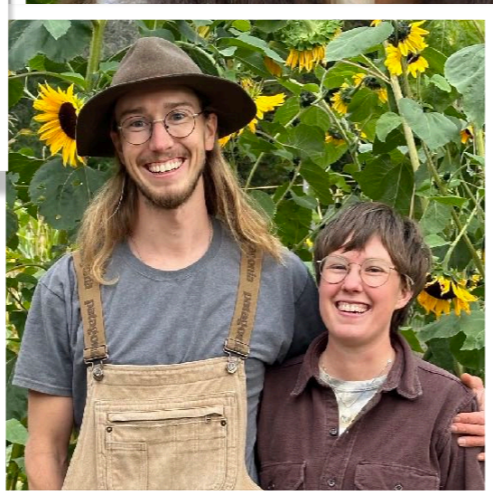
Environmental: Organic Regenerative Agriculture (ORA) Standard



SUSTAINABILITY cont.

2. How does the project build partnerships and long-term local capacity?





PARTICIPATION

Project Team Members

We pride ourselves on providing an inclusionary space for all project team members and participants.

Individuals with diverse abilities, neurodivergent, Indigenous, women in STEM, and LGBTQ2S+ alongside paid youth Interns, consultants, and countless volunteers with a myriad of backgrounds!

RESPONSIBILITY

Our Work Plan

- Infrastructure installation already in progress
- We have hired **2 youth manager trainees** and will hire a third who will become our mentors and trainers in the future
- Spring 2024: **Each manager will have a team of Youth Interns that they will supervise** under the guidance of Kate Mizenka; these youth will become the skilled local workforce that will expand the RECFG project to other sites in the RDCK



FUNDING

Our ASK of CSLAC

Human Resource & Training Expenses

\$10,000 to support a living wage for Youth Interns to train to become local community leaders.

1. Project Budget

Budget Item	Total Amount Required
Manager Intern Wage & MERCS	\$47,271
Manager Intern Wage & MERCS	\$47,271
Total Amount Required	\$94,542
Total Eligible Funding	\$94,542



2. Revenue Sources

Source Name	Description	Applied For (Y/N)	Confirmed (Y/N)	Amount
Career Launcher Internship Grants	Federal Government funding	Y	Y	\$20,000
Other Federal Youth Employment Grants* (Eco Canada, Canada Summer Jobs, YESP, Green Jobs)	Federal Government funding	N	N	\$62,000
RDCK CSLAC	Local Government	Y	N	\$10,000
Elk Root Conservation	Applicant	n/a	Y	\$2,542
TOTAL				\$94,542

In-Kind Contributions

Our Director of Farm Orchard & Apiary has agreed to train our Youth Manager Interns for the pilot of the RECFG project equalling 1000s of in-kind hours over the next 12 months.



PROOF OF PRINCIPLE

'Under Promise & Over Deliver'



Pollinator Garden & Food Forest Transformation

PROOF OF PRINCIPLE

'Under Promise & Over Deliver'



Pollinator Garden & Food Forest Transformation

THANK YOU!

TO OUR
FUNDERS & SPONSORS



QUESTIONS?





REGIONAL DISTRICT OF CENTRAL KOOTENAY

CSLAC Staff Update

Date: 2023/10/17

To: Community Sustainable Living Advisory Committee

From: Paris Marshall Smith, Sustainability Planner

Subject: UPDATE ON SUSTAINABILITY SERVICE PROJECTS & AREAS OF ACTIVITY

File: 01-0515-20-CSLAC

The purpose of this memo is to provide an update to the Community Sustainability Living Advisory Committee (CSLAC) of the current activity of the Sustainability Planner within S105. Updates on S100 initiatives such as RDCK Climate Actions, Regional Energy Efficiency Program (REEP) and 100% Renewable Energy by 2050 will go directly to the Board.

- Year 1 (2017) focus – responding to projects underway and initiating new activity to support Board priorities on Coordinated Delivery; Water – protection & advocacy; Housing; and Food & Agriculture. Energy & Climate Change are also Board priorities as per the climate action charter;
- Year 2 (2018) focus – integrating initiatives internally and externally through coordinated communication, marketing, policy development and by-law review.
- Year 3 (2019) focus – Watershed Governance Initiative, Senior Energy Specialist, Regional Energy Efficiency Program (REEP),
- Year 4 (2020) focus – Watershed Governance Initiative, Timber Deadstock Bioenergy, Regional Energy Efficiency Program (REEP) and Climate Action Strategy
- Year 5 (2021) focus – Watershed Governance Initiative, Climate Action Strategy and Regional Bioenergy Opportunities
- Year 6 (2022) focus - Watershed Governance Initiative, Climate Action Strategy & project management of Slocan Lake and River Collaborative (SLRP), Invasive Species Plan Implementation & Geothermal GIS projects
- Year 7 (2023) focus: Watershed Governance Initiative, Slocan Lake and River Collaborative (SLRP) and Grid Resilience Investigation.

GMDS – General Manager of Development & Community Sustainability Services, CSM – Manager of Community Sustainability Services & SP – Sustainability Planner

SUMMARY OF SUSTAINABILITY PLANNER *CURRENT* WORK TIME DISTRIBUTION

AREA OF WORK	CURRENT %	COMMITMENT
Community Sustainability Service (105) initiatives		
Central Kootenay Food Policy Council	1%	CKFPC have hired a new ED - Damon Chouinard, next meeting October 24
Watershed Governance Initiative	12%	Phase 3: <ul style="list-style-type: none"> • WebMap & Story Map updated • Staff and EO`s met with Yaqan Nukiy Nasookin and Council re Duck Creek watershed cumulative impact study
Slocan Lake and River Partnership	2%	SLRP Steering Committee has been invited to participate in a Syilx enowkinwixw decision process as a method for partnership creation, the invitation will be extended to the Board and other staff
Kootenay Lake Partnership	0%	KLP active and underway
Rural Grid Resilience Investigation	1%	Contracting with LINKS complete, project underway.
Admin	6%	Project The admin rhythm revolves around the bi-monthly CSLAC meeting and includes project evaluations & funding applications
General admin (S100) initiatives		
Climate Action Strategy	70%	Revised RDCK Climate Actions communication & engagement strategy in process. Community Ambassadors work complete
Regional Invasive Species Plan	1%	Contracting complete, work underway. Working group being established.
Admin	7%	Reporting as needed to the Board
TOTAL	100%	

Color legend for areas of work
Food & agriculture
Water advocacy & protection
Energy
Climate Action

CURRENT CSLAC COMMITMENTS FOR YEAR 7 (2023)

CSLAC AREA OF FOCUS	PROJECT	STATUS	TIMELINE	CSLAC STAFF TIME
Food and Agriculture	Central Kootenay Food Policy Council	Active and confirmed	On-going	0.1
Water	Kootenay Lake Partnership	Active and confirmed	On-going	0.4
	Watershed Governance Initiative – Phase 3	Active and Confirmed	Spring 2023-2024	
	Slocan Lake and River Collaborative	Active and Confirmed	Fall 2023	
Energy	Rural Grid Resilience Investigation	Active and confirmed	Fall 2023	0.1
Climate Action	Climate Action Strategy	Active and confirmed	On-going	0.3
	Implementation of Regional Invasive Species Strategy	Active and to be confirmed	Fall 2023	
CSLAC	Administration	Active and confirmed	On-going	0.1 FTE

2023 staff time commitment 1.0 FTE

Available CSLAC funding for 2023 All funding allocated for 2023

DASHBOARD OF CSLAC ACTIVITIES – Board resolutions follow

Program	Responsible	Update of Activity	Staff time & funding	Current allocation of resources by SP	Activity to next meeting	Activity for 2023
CENTRAL KOOTENAY FOOD POLICY COUNCIL	Executive Director with support from SP	Attended the CKFPC AGM in early May	\$15,000 from S100 + staff time	Normally minimal: 1-2 hours per month to attend meetings and follow email conversations.	To be determined	Unknown at this time

Project	Responsible	Update of Activity	Staff time & funding	Current allocation of resources by SP	Activity to next meeting	Activity for 2023
WATERSHED GOVERNANCE PROJECT PLANNING	SP & Water Service Liaison	Working to update webmapping, met with the Province re WSSF and overseeing the Service Case Analysis	Expenses from CARIP + staff time + \$25,000 for Duck Creek	SP (0.3 FTE), GMDS (0.05 FTE), CSM (0.1 FTE) and Water Services Liaison (0.1 FTE) to support the project	Updating the Duck Creek map and sharing with Yaqan Nukiy	Service Case Analysis and possible Natural Asset Management project
SLOCAN LAKE AND RIVER PARTNERSHIP	SP & GMDS	Development of Terms of Reference for the Partnership underway	\$5,000 from CSLAC project fund	SP – 3-4 hours per month	Prepare next draft of Terms of Reference	Develop structure for SLRP

Project	Responsible	Update of Activity	Staff time & funding	Current allocation of resources by SP	Activity to next meeting	Activity for 2023
CLIMATE ACTION STRATEGY	SP	Revised communication & engagement strategy for remainder of the year	Funding from S100 LGCAP and other grants & staff time	30-40 % of staff time for 2023	Communication and & engagement re RDCK Climate Actions	TBD by Board

Project	Responsible	Update of Activity	Staff time & funding	Current allocation of resources by SP	Activity to next meeting	Activity for 2023
REGIONAL INVASIVE SPECIES PLAN	SP	Work underway	Staff time + \$48,230 for RDCK properties + \$15,000 for strategy	Minimal	Works begins	Implementation of management of RDCK properties and Regional Invasive Species Strategy & report back to Board in fall 2023

Project	Responsible	Update of Activity	Staff time & funding	Current allocation of resources by SP	Activity to next meeting	Activity for 2023
GRID RESILIENCE	SP	pilot for 2023 underway by LINKS in Lardeau Valley with CSLAC support	Staff time	Minimal	Minimal, reporting on project in the fall	Reporting on outcomes & funding application for ongoing pilots

Project	Responsible	Update of Activity	Staff time & funding	Current allocation of resources by SP	Activity to next meeting	Activity for 2023
WEBSITE UPDATE & PRINT MATERIAL	SP & Communications Coordinator	Website continues to be updated and prepared for transition to new website	Staff time	On-going	On-going monitoring and updating	Ensure that website supports internal and external

ADMIN	SP	Project management, relationship building, meetings, communication, reporting	Staff time	4-5 hours per week	On-going	communication effectively
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BOARD RESOLUTIONS THAT GUIDE CSLAC’S WORK

FOOD & AGRICULTURE	
CENTRAL KOOTENAY FOOD POLICY COUNCIL	<ol style="list-style-type: none"> 1. 718/17 That the Board direct staff to include a \$10,000 per year funding for the Central Kootenay Food Policy Council within the 2018-2022 draft financial plan for Service S105. 2. 741/18 That the Board grant the balance of \$22,083.62.00 to the Central Kootenay Food Policy Council (CKFPC) contingent on all grant reporting and society action reporting deliverables be presented and approved by the Board; AND FURTHER, that staff obtain documentation form CKFPC that indicates they are in compliance with the British Columbia Societies Act. 3. 757/18 That the Board appoint the following Directors to the Central Kootenay Food Policy Council for a term to end December 31, 2020 Director Faust and the second appointment BE REFERRED to December 13, 2018 Board meeting. 4. 03/19 That the Board appoint the following Director to the Central Kootenay Food Policy Council for a term to end December 31, 2020 as per resolution 757/18: Director Peterson Director Main (Alternate) 5. 48/19 That the Board agrees that the Central Kootenay Food Policy Council has satisfied the Board’s requirements and has demonstrated that it is in compliance with funders and the BC Societies Act; AS SUCH, the RDCK Board grants the balance of the \$29,347.87 to the Central Kootenay Food Policy Council from Community Sustainability Service S105. 6. 284/20 That the Board approve the \$25,000 in the 2020 Financial Plan from Community Sustainable Living Service S105 be held for a Food Security Coordinator position within the Emergency Operations Centre as leveraging funds. 7. 285/20 That the Board direct staff to report on options to establish a Food Security Coordinator position to be fully funded through Community Sustainable Living Service S105 with a budget up to \$25,000. 8. 377/20 That the Board send a letter of support for the Columbia Basin Food Security Plan; AND FURTHER, that the Board allocate funds to the first phase of the "Central Kootenay Interim Food Security Action Plan" from Community Sustainability Service S105 in the amount of \$22,145.00 to the Central Kootenay Food Policy Council.

	<p>9. 115/21 That the Board approve the Central Kootenay Food Policy Council’s request for increase in core funding for a total amount of \$15,000 to be included in the 2021 Financial Plan from the Service 105 Community Sustainable Advisory.</p> <p>10. 286/21 That the Board and staff review the draft Central Kootenay Interim Food Security Action Plan and provide their recommendations by May 11, 2021.</p> <p>11. 288/21 That Board direct staff to complete an internal assessment, prior to requesting a Service Case Analysis, to understand if a Contribution Service for food and agriculture is possible.</p> <p>12. 855/21 That the Board direct staff to work with Central Kootenay Food Policy Council to proceed with the proposed actions of the Regional Food Security Action Plan: (See minutes for full resolution)</p>
<p>WATER</p>	
<p>WATERSHED GOVERNANCE INITIATIVE</p>	<p>1. 416/16 That the RDCK write a letter to the POLIS Project on Ecological Governance and invite the organization to the West Kootenay to hold a watershed workshop.</p> <p>2. 592/16 That the RDCK invite The POLIS Project on Ecological Governance to attend the January 2017 Board meeting to give a presentation on watersheds and water sustainability.</p> <p>3. 88/18 That the Board direct staff to invite the Polis Project to host a workshop with the RDCK staff and Directors on watershed governance; AND FURTHER expenses and stipend be paid by General Administration S100.</p> <p>4. 256/18 The Watershed Governance workshop with the POLIS Project be booked for May 18th, 2018 and the Watershed Governance Workshop Discussion report be made available to all Board Directors.</p> <p>5. 487/18 That the Board direct staff to develop a Regional Watershed Governance Initiative project plan, and identify an allocation for General Manager of Development Service and Sustainability Coordinator's time to implement the project plan for consideration in the draft 2019 five year financial plan within General Administration Service (\$100).</p> <p>6. 892/18 That the RDCK Board directs staff to seek funding to launch and coordinate a scoping study to better understand the potential watershed governance roles and responsibilities of the RDCK; with areas for the study to be determine by the Community Sustainable Living Advisory Committee at the January committee meeting; And Further, the Board allocates staff time of the Sustainability Planner (0.3 FTE), General Manager of Development Services (0.1 FTE) and Water Services Liaison (0.1 FTE) to support the procurement process for services.</p> <p>7. 13/19 That the Board direct staff to develop a Regional Watershed Governance Initiative project plan, and identify an allocation for General Manager of Development Service and Sustainability Coordinator's time to implement the project plan for consideration in the draft 2019 five year financial plan within General Administration Service (\$100).</p> <p>8. 121/19 That the RDCK Board approve funds in the amount of \$26,250 from S105 Community Sustainable Living Advisory Service for the Watershed Governance Initiative scoping study, to complement the work being done in Area H and I's ground water studies, for the following watersheds:</p> <ul style="list-style-type: none"> • Bourke, Sitkum & Duhamel Community Watershed (Area F); • Arrow Creek Community Watershed (Area B); • Ymir Community Watershed (Area G); • Argenta Watershed (Area D);

	<ul style="list-style-type: none"> • Harrop (Area E); • and Deer Creek (Area J) <p>9. 409/10 That the RDCK Board award the Regional Watershed Governance Initiative Scoping Study to Christina Metherall and Elucidate Consulting, and that the Chair and Corporate Officer be authorized to sign the necessary documents to a maximum value of \$26,880 (includes GST).</p> <p>10. 282/20 That the Board direct staff to prepare a workplan to determine the organizational capacity of the Community Sustainability Services and Water Services staff to pursue the recommendations of the RDCK Regional Watershed Governance Initiative report dated January 2020.</p> <p>11. 389/20 That the Board endorse the Watershed Governance Initiative Project Plan (May 2020) and direct staff to pursue the Project Plan as a collaboration between Community Sustainability and Water Services staff.</p> <p>12. 610/20 The Board direct staff to bring forward a project plan with budget that will seek to collate and map existing watershed information held by the RDCK and other sources at a regional scale to inform our next steps and as a support to communities and conducting a gap analysis; AND FURTHER bring this back to the Community Sustainable Living Advisory Committee to inform the RDCK's next steps on watershed governance.</p> <p>13. 828/20 That the Board approve transfer of funds to Community Sustainability Service S105 for a student position to support the Watershed Governance Initiative Data Collation and Mapping project in the amount of \$14,500 from the Climate Action Revenue Incentive Program (CARIP) Service S100 and include in the 2021 Financial Plan; That the Board approve transfer of \$9,000 in funds for the Watershed Governance Initiative Data Collation and Mapping project from Climate Action Revenue Incentive Program (CARIP) Service S100 to Community Sustainability Service S105.</p> <p>14. 112/21 That the Board send a letter of support to Living Lakes Canada for the Columbia Basin Water Monitoring Collaborative and Water Hub.</p> <p>15. 113/21 That the Board direct staff to report back to Community Sustainable Living Advisory Committee on how the workplan for the Watershed Governance Initiative is modified and budgeted based on a collaboration with Living Lakes Canada.</p> <p>16. 584/21 That the Board approve the recommended next steps of Phase 3 of the Watershed Governance Initiative (WGI) with a focus on relationship building and planning, mapping and monitoring as outlined below and presented to the Community Sustainable Living Advisory Committee August 17, 2021:</p> <ol style="list-style-type: none"> 1. Supporting continued relationship building with Yaqan Nukiy and Ktunaxa Nation Council, Syilx Okanagan Nation Alliance, Secwepemc and Sinixt 2. Provide technical support for community led watershed mapping and communication tools such as story mapping 3. Supporting management of RDCK water systems - pilot natural asset management 4. Supporting regional monitoring – investigate how the RDCK could support local level monitoring 5. Supporting community led mapping – investigate Nature Based Planning <p>17. 585/21 That the RDCK Board direct staff to develop a work plan for continued work on the Watershed Governance Initiative (WGI) including seeking external partners; AND FURTHER, to prepare for discussion on how Community Sustainable Living Advisory Committee (CSLAC) can encompass the entire Board.</p> <p>18. 658/21 That the Board direct the Chair of the Board and Chair of Community Sustainable Living Advisory Committee to reach out to MLA Brittny Anderson to discuss opportunities for engagement around the Regional Watershed Governance Initiative as it moves into Phase 3 focused on relationship building, monitoring and mapping.</p>
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	<ol style="list-style-type: none"> 19. 852/21 That the Board direct staff, Community Sustainable Living Advisory Committee Chair and Board Chair to work with MLA Anderson to develop a relationship with Forest Lands Natural Resource Operations and Rural Development and host community forums focused on watershed governance and stewardship in 2022. 20. 853/21 That Resolution 847/20, being the transfer of \$9,000 in funds for the Watershed Governance Initiative Data Collation and Mapping project from Climate Action Revenue Incentive Program (CARIP) Service S100 to Community Sustainability Service S105 and include in the 2021 Financial Plan BE RESCINDED because funds were not needed as anticipated. 21. 86/22 That the RDCK Board approve funding up to \$25,000 for the 2022 Watershed Governance Initiative budget from S105 Community Sustainable Living Service and include this in the 2022 Financial Plan; AND FURTHER, the Board allocates staff time of the Sustainability Planner and Water Services Liaison to support the 2022 Watershed Governance Initiative. 22. 128/22 That the Board direct staff to submit a response on behalf of the RDCK to the Province on the Watershed Security Strategy and Fund; AND FURTHER, invite Board members and staff to comment on the draft responses by Monday, February 28, 2022. 23. 258/22 That the RDCK Board direct staff to send a request to Yaqaan Nukiy Chief and Council for their participation on developing a Water Sustainability Plan for the Creston Valley; AND FURTHER, request that the Province order a Water Sustainability Plan be developed in the Creston Valley in partnership with RDCK and Yaqaan Nukiy SUBJECT TO agreement from Yaqaan Nukiy. 24. 433/22 That the Board direct staff to prepare a service case analysis and report back to the Board on the implications of establishing the requisition of a Drinking Water & Watershed Protection Service bylaw for protection of watersheds and drinking water in the Regional District of Central Kootenay to be added to the workplan in 2023. 25. 515/22 That the Board direct staff to work with the Wynndel community residents to create a story map, request an investigation under the Drinking Water Protection Act (Section 29) and request that the Ministry of Forests confirm the VRI (vegetation regeneration index) for the Duck Creek Watershed; AND FURTHER, that the Community Sustainable Living Service (S105) contribute up to a total of \$25,000 of funds over 2022 and 2023 budget years to conduct a cumulative impact study of proposed logging in the Duck Creek Watershed. 26. 224/23 The Board is asked to provide comments related to watershed ecosystem services and health; climate resiliency; watershed governance and the help needed; economic opportunities within watersheds; reconciliation with Indigenous Peoples as it relates to water; and, advancing the UN Declaration of the Rights of Indigenous Peoples. 27. 304/23 That the Board approve the RDCK enter into a Collaborative Research Agreement with Selkirk College to provide research support for a service case analysis on a Drinking Water and Watershed Protection Service Case Analysis for the period of May 1, 2023 to September 30, 2023; AND FURTHER, that the Agreement be signed by the Chair and Corporate Officer. 28. 305/23 That the Board direct staff to conduct Step 1 of Community Sustainable Living Advisory Committee project evaluation of completing a Natural Asset Management Plan for Ymir Water System - Quartz Creek Watershed. 29. 377/23 That the Board direct staff to complete Step 2 of Community Sustainable Living Advisory Committee project evaluation to create a natural asset management plan for the Quartz Creek Watershed prepare a workplan and budget.
<p>KOOTENAY LAKE PARTNERSHIP</p>	<ol style="list-style-type: none"> 1. 91/18 That the RDCK Board approve funding of \$10,000 under S105 Community Sustainable Living Service to support the contracted service of the Kootenay Lake Partnership Coordinator position within the 2018 budget. 2. 414/19 That the RDCK Board extends its support for Living Lakes Canada's Foreshore Inventory and Mapping for Aquatic Species at Risk proposal to the Canada Nature Fund with in-kind contributions of mapping data and staff hours for a total contribution of \$175,000.00 over the four (4) year term of the project, which is:

	<table border="1"> <thead> <tr> <th data-bbox="575 196 870 220">PROJECT</th> <th data-bbox="870 196 1177 220">IN-KIND CONTRIBUTIONS</th> </tr> </thead> <tbody> <tr> <td data-bbox="575 233 870 358">Regional Flood and Hazard Risk Assessment LIDAR Acquisition and Processing</td> <td data-bbox="870 233 1177 326">Completed in 2018 \$40,000.00 Completed in 2018 \$40,000.00</td> </tr> <tr> <td data-bbox="575 363 870 423">Floodplain Mapping Kootenay Lake</td> <td data-bbox="870 363 1177 423">In Process \$60,000.00In Process \$10,000.00</td> </tr> <tr> <td data-bbox="575 428 870 521">Inundation Study Planning staff time for review and outreach</td> <td data-bbox="870 461 1177 488">Pending \$25,000.00</td> </tr> </tbody> </table> <p data-bbox="532 574 2467 667">3. 390/20 That the Board direct staff to transfer the remaining grant funding from the Real Estate Foundation (REF) in Community Sustainability Service S105, administered by RDCK on behalf of the Kootenay Lake Partnership, to Living Lakes Canada to support the Program Coordinator Position upon receiving confirmation from REF to do the transfer; AND FURTHER, that final report comes back to RDCK for information</p> <p data-bbox="532 721 2467 846">4. That the Board approve an allocation of \$10,000 annually from 2022-2024 to fund the Kootenay Lake Partnership Coordinator from the Community Sustainable Living Service S105 and this amount be added to the 2022-2026 Financial Plan; AND FURTHER, the Board approve that amount be paid to the Ktunaxa Nation Land and Resource Division annually, to support the Kootenay Lake Partnership through contract administration of the Coordinator position SUBJECT TO a contribution agreement with the Ktunaxa Nation Council being prepared and brought back to the Board.</p>	PROJECT	IN-KIND CONTRIBUTIONS	Regional Flood and Hazard Risk Assessment LIDAR Acquisition and Processing	Completed in 2018 \$40,000.00 Completed in 2018 \$40,000.00	Floodplain Mapping Kootenay Lake	In Process \$60,000.00In Process \$10,000.00	Inundation Study Planning staff time for review and outreach	Pending \$25,000.00
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Inundation Study Planning staff time for review and outreach	Pending \$25,000.00								
ENERGY									
REGIONAL BIOENERGY & FULL FIBER UTILIZATION PLANNING	<p data-bbox="532 932 2467 992">1. 119/19 That the Board direct staff to explore partnerships possibilities with Columbia Shuswap Regional District, Regional District East Kootenay and Regional District Kootenay Boundary on the Timber Deadstock Biofuel scoping study; AND FURTHER, that staff explore funding opportunities for the study</p> <p data-bbox="532 1029 2467 1154">2. 232/19 That the Board approve the RDCK entering into a Contribution Agreement with Columbia Basin Trust to support the research and development of a business plan for timber deadstock biofuel in the Regional District of Central Kootenay, and that the Chair and Corporate Officer be authorized to sign the necessary documents; AND FURTHER, the required matching funds of up to \$25,000 come from Service S105 - Community Sustainable Living Advisory; AND FURTHER, that the grant funds be received and administered through S105.</p> <p data-bbox="532 1192 2467 1252">3. 500/20 That the Board direct staff to further develop the business case potential of the Wood Pellet Boiler Network, District Energy in Castlegar and Village District Energy Systems as part of the Timber Deadstock Bioenergy Feasibility Study in coordination with municipal staff.</p> <p data-bbox="532 1289 2467 1382">4. 845/20 That the Community Sustainable Living Advisory Committee Chair, RDCK Board Chair and senior staff approach the new Minister of Forests, Lands, Natural Resource Operations & Rural Development to ask what emerging direction may be coming which would assist the RDCK in further investigating bioenergy projects which would align with provincial objectives of maximizing fiber utilization and reducing forest fuel loading; AND FURTHER to make a similar outreach to Forest Enhancement Society BC.</p> <p data-bbox="532 1419 2467 1455">5. 285/21 That the Community Sustainable Living Advisory Committee take no further action at this time on the following recommendation:</p>								

	<p>845/20 That the Community Sustainable Living Advisory Committee Chair, RDCK Board Chair and senior staff approach the new Minister of Forests, Lands, Natural Resource Operations & Rural Development to ask what emerging direction may be coming which would assist the RDCK in further investigating bioenergy projects which would align with provincial objectives of maximizing fiber utilization and reducing forest fuel loading; AND FURTHER to make a similar outreach to Forest Enhancement Society BC.</p>
<p>COMMUNITY GEOTHERMAL - GIS PROJECT</p>	<p>1. 451/21 That the Board approve funding \$10,000 for the South Kootenay Lake Community Services Society’s Community Geothermal - GIS Project Set-up and Data Integration from S105 Community Sustainable Living Service and include this in the 2021 Financial Plan.</p>
<p>RURAL GRID RESILIENCE INVESTIGATION</p>	<p>1. 516/22 That the Board direct staff to work with Community Energy Association to understand the potential and limitations of energy storage, micro generation or bi-directional charging and prepare a workplan and budget for 2-3 community pilots in 2023, with the report to come back to the Community Sustainable Living Advisory Committee for review.</p> <p>2. 303/23 That the Board approve \$6,500 in funding to support a Lardeau Valley Opportunity LINKS Society pilot of residential power back up/renewable home assessment & rebates, to be paid from the Community Sustainable Living Service (S105).</p>
<p>CLIMATE ACTION</p>	
<p>CLIMATE ACTION STRATEGY</p>	<p>1. 124/19 That the Board direct staff to prepare a resolution that responds to ramping up RDCK’s climate action in response to the climate emergency by April, 2019.</p> <p>2. 272/19 - WHEREAS Climate change is recognized to be an urgent reality requiring rapid decarbonisation of energy across all sectors; Climate change is recognized to be an urgent reality where risks are compounded by increased climate change weather related events (more precipitation in the winter, dryer hotter summers) and increased levels of uncertainty. Preparing for increased resilience and adaptability is critical; THEREFORE BE IT RESOLVED That the Regional District of Central Kootenay Board recognizes that the world is in a global state of climate crisis. This reality creates an imperative for ALL ORDERS OF GOVERNMENT to undertake “rapid and far reaching” changes to building construction, energy systems, land use and transportation.</p> <p>1. 701/19 That the Board direct staff to update the RDCK Policy Framework to incorporate a climate action lens; AND that, the 3-phased Climate Action Lens Policy strategy will seek input from the Senior Management Team to ensure smooth integration with operations and will bring recommendations to the Board for approval.</p> <p>2. 861/19 That the Board direct staff to distribute the 2019 RDCK State of Climate Action full report and summary handout to the public.</p> <p>3. 848/20 That the Board approve transfer of funds to Community Sustainability Service S105 for a student position to support climate action work in the amount of \$14,500 from the Climate Action Revenue Incentive Program (CARIP) Service S100 and include in the 2021 Financial Plan; AND FURTHER, to offset the costs of the student position, the Board direct staff to apply to the Pacific Institute for Climate Solutions (PICS) for \$12,000.</p> <p>4. 604/21 That the RDCK Board endorse updating the RDCK State of Climate Action (SoCA) reporting framework to include a combination of reporting efforts such as – a dashboard, an annual scorecard, and reports (less frequent than current annual reports) with expenses to be paid from General Administration Service S100.</p> <p>5. 44/22 That the Board adopt Policy 200-01-17 Better Corporate Building Policy and accompanying Procedures effective January 20, 2022</p> <p>6. That the RDCK Board adopt science based carbon pollution (greenhouse gas emissions) reduction targets of 50% below 2018 levels by 2030, and 100% by 2050; AND FURTHER that the Board directs staff in 2022 to prepare 4-year climate action plans as a pathway to 2030 climate action targets and bring a report back to the Board.</p>

	<ol style="list-style-type: none"> 7. 259/22 That the RDCK Board approve the budget of up to \$80,000 for the development of the 2023 -26 Climate Action Plan and associated four (4) year Communication and Engagement Strategy, and that these funds be drawn from the Climate Action Revenue Incentive Program (CARIP) reserve in General Administration Service S100. 8. 514/22 That the Board appoint the following Directors to an advisory group to support the completion of the Regional District of Central Kootenay Climate Action Plan: (see minutes for full resolution)
<p>RURAL DEVELOPMENT INSTITUTE (RDI) – CLIMATE ADAPTATION PROJECT</p>	<ol style="list-style-type: none"> 1. 233/19 That the Board partner with the Rural Development Institute’s Regional Approach to Rural Climate Adaptation Project Partnership and direct staff to finalize the agreement; AND FURTHER, allocate \$12,500 of in-kind staff time from Service S105 for 2019-2020 (2 years) to support the Partnership. 2. 595/19 That the Board approve the RDCK entering into a Collaborative Research agreement with Selkirk College for the Regional Approach to Rural Climate Adaptation Project Partnership for the period from May 1, 2019 to March 1, 2021, and that the Chair and Corporate Officer be authorized to sign the necessary documents.
<p>100% RENEWABLE ENERGY BY 2050</p>	<ol style="list-style-type: none"> 1. 257/18 That the Board commit to the development of strategies and implementation of projects to achieve the long-term goal of deriving 100% of its net energy from renewable sources by 2050, and commit to demonstrate strong political leadership and significantly contribute to the reduction of greenhouse gases in the region. 2. 222/19 That the Board appoint the following individual(s) to work with the West Kootenay EcoSociety towards the 100% Renewable Energy by 2050 from the Community Sustainable Living Advisory Committee; AND FURTHER, stipend and expenses to come from S105: Director Faust & Lockwood 3. 412/19 That the Board Chair and Corporate Officer sign the Memorandum of Understanding with West Kootenay 100% Renewable Energy Plan. 4. 139/21 That the Board receive the West Kootenay 100% Renewable Energy Plan dated December 2020 as presented in the January 6, 2021 West Kootenay 100% Renewable Energy Plan Board Report; AND FURTHER, that the adoption of the plan be considered after the workshop has taken place.
<p>REGIONAL INVASIVE SPECIES PLAN</p>	<ol style="list-style-type: none"> 1. 483/21 That the Board direct Development and Community Sustainability Services staff to coordinate with staff from Geographic Information Services, Resource Recovery, Water Services, Recreation Facilities and Parks to create a proposal for an implementation plan of the draft Regional Invasive Species Strategy. 2. 50/22 That the Board direct staff to negotiate and enter into a sole-source agreement with the Central Kootenay Invasive Species Society for an invasive plant inventory on RDCK-owned or leased properties and development of a detailed implementation plan of the Regional Invasive Species Strategy for an amount not to exceed \$44,472 exclusive of GST; AND FURTHER, that the costs for the inventory be paid from the services responsible for the lands and buildings sites identified and the costs of \$8,500 for the Regional Invasive Species Implementation Plan be paid from General Administration Service S100. 3. 780/22 That the Board direct staff to enter into a sole-source agreement with the Central Kootenay Invasive Species Society for invasive plant management on RDCK-owned-leased properties, as outlined in the 2022 RDCK Invasive Plant Management Plan up to a maximum amount of \$48,230 plus GST; AND FURTHER, that the costs for the invasive plant management be added to the 2023-2027 Financial Plan for the departments responsible for the lands and building sites identified. 4. 60/23 That the Board direct staff to negotiate an agreement with the Central Kootenay Invasive Species Society for implementation of Option 1 (\$15,000) and PILOT the Good Neighbour program (\$12,000) of the Regional Invasive Species Strategy for the 2023; AND FURTHER, that the costs of no more than \$27,000 + GST be included in the S100 General Administration draft 2023 Financial Plan; AND FURTHER, that the agreement be brought back to the March 16, 2023 Board meeting.

REGIONAL ACTIVE & LOW CARBON TRANSPORTATION STRATEGY	1. That the Board direct staff to prepare a detailed project budget to investigate regional active transportation solutions as outlined in the report from Community Sustainable Living Advisory Committee (CSLAC) staff dated September 10, 2022 and report back to CSLAC for approval.
CSLAC ADMINISTRATIVE & COMMUNICATION SUPPORT	
WEBSITE UPDATE & PRINT MATERIAL	1. 601/18 That the Board direct staff to highlight the work of the Sustainability Service (105) through the RDCK website and announce with a media release. 2. 578/19 That the Board directs staff to procure services from Little H Design Works for \$2,500 for the work of designing the summary report for the RDCK's Climate Action Indicator Project with funds to come from Service 105; AND FURTHER, staff be directed to seek quotes to produce a graphic illustration of this report for distribution on line.
ADMIN	1. 382/18 That the RDCK Board support the allocation of S105 funds 'Grants' leveraging and linking additional funds from external agencies for sustainability initiatives, as described in the Community Sustainable Living Advisory Committee Terms of Reference. 2. 123/19 That the Board approve the 2019 Community Sustainable Living Advisory Committee draft budget; AND FURTHER, that the directors stipend and expenses be reduced to \$5,000 for the years 2020-23 inclusive.



Community Sustainable Living Advisory Committee (CSLAC) Project funding

October 17, 2023



CSLAC projects

Since 2017, CSLAC has initiated 25 projects and programs (Kootenay Lake Partnership, existed prior to 2017) – an average of 3.6 projects per year. Most of its initiatives are regional in scope and benefit.

Over the last 6 years, the Committee has effectively leveraged its relatively small contribution over 5.3 times for more than \$2,207,000 of community contribution



CSLAC projects

CSLAC has a project grant fund of \$25,000 that can be used to investigate ideas important to RDCK residents.

Individual funding requests for projects are capped at \$10,000 per year.

To determine the projects for each year, Committee members use the 2-step project evaluation process (first & second).



Project Review

AREA OF SPENDING	DETAILS	AMOUNT
Grants (projects) Funded - 2022	<ul style="list-style-type: none"> • CKFPC – Food and Farm Guide & Food Asset inventory • Kootenay Lake Geo Thermal Phase 2 • Duck Creek Watershed Cumulative Impact Study • Slocan Lake & River Partnership 	<ul style="list-style-type: none"> • \$3,500 • \$10,000 • \$6,500 • \$5,000
Grants (projects) Funded - 2023	<ul style="list-style-type: none"> • Duck Creek Watershed Cumulative Impact Study • LINKS – energy resilience PILOT 	<ul style="list-style-type: none"> • \$18,500 • \$6,500
Grants (projects) PROPOSED - 202	<ul style="list-style-type: none"> • Living Lakes Canada – Ground Water Monitoring • Friends of Kootenay Lake – CABIN water monitoring • Elk Root Conservation – Regenerative Educational Community Food Garden 	



QUESTIONS?





Committee Report

Date of Report: September 26, 2023
Date & Type of Meeting: October 17, 2023, Community Sustainable Living Advisory Committee
Author: Paris Marshall Smith, Sustainability Planner
Subject: ELK ROOT CONSERVATION REGENERATIVE EDUCATIONAL COMMUNITY FOOD GARDENS
File: 5200-20-CSLAC-Projects-ERC
Electoral Area/Municipality All

SECTION 1: EXECUTIVE SUMMARY

This report provides Step 2 of Community Sustainable Living Advisory Committee project evaluation for a funding application from Elk Root Conservation for the **Regenerative Educational Community Food Gardens** ('RECFG'). The full project evaluation can be found as **Attachment A – CSLAC_ERC-ATTACH01**

This report is for information.

SECTION 2: BACKGROUND/ANALYSIS

This report provides Step 2 of Community Sustainable Living Advisory Committee project evaluation for a funding application from Elk Root Conservation for the **Regenerative Educational Community Food Gardens** ('RECFG'). Elk Root Conservation has requested \$10,000 to expand food production in the RDCK.

OVERVIEW – from the application

The primary goals of the **Regenerative Educational Community Food Gardens** are to

- 1) address local food insecurity of at-risk populations in the RDCK by:
 1. supplying vulnerable community members with organically grown food for free; and
 2. access to garden space and expert instruction to learn to grow healthy food at home;
- 2) recover local food that is currently being wasted; and
- 3) support local food producers to adapt to climate action initiatives proposed by the RDCK.

Elk Root Conservation's (ERC) Regenerative Educational Community Food Garden (RECFG) project will address local food insecurity by expanding ERC's capacity to grow food for the community and increase literacy surrounding the production of healthy food. The project will improve growing and harvest efficiencies, reduce fossil fuel and carbon footprints, address water usage in drought conditions, and divert food waste.

Initially this project will be launched and piloted in 2024 at ERC’s Educational Demonstration Farm in Vallican BC, with a view to expand operations on selected sites across the RDCK. The intention is to develop a localized system of climate adapted food production, storage and distribution food hubs across the region.

BACKGROUND

Food security and food affordability is a top concern for RDCK residents. The RECFG project offers a response in the form of increasing local food production. It is a community engaged and supported approach to elevating our food system by creating a model that addresses the need for a sustainable and equitable approach to producing, storing and delivering food in the RDCK. It will provide food for vulnerable community members, nourishment of mind and spirit by bringing together community. Furthermore, the project proposes to support regional food producers who recognize the need to adapt to the ever-changing climate but do not have the time or financial support to do what needs to be done to adapt successfully. ERC has the expertise, experience and community support to have a positive impact and to pilot this project as a viable solution to create a secure local food system in the RDCK that is adaptive and innovative.

HOW WILL THIS BE ACHIEVED?

The ERC Regenerative Educational Community Food Gardens project plan focusses on 3 areas:

1. Environmental conservation: community groups will have access to garden plots to learn to grow food with regenerative gardening skill building support from ERC staff
2. Building the economic wellbeing: in the form of demonstration plots for group education, high production plots to provide higher value crops, as well as research and innovation plots to support collaborations with local farmers to test climate adaptive strategies to sustainably produce food.
3. Social wellbeing for vulnerable: community space for gathering, learning opportunities, strengthening local food systems by planting the seeds to develop a collaborative and sustainable food production model for the RDCK.

In 2024, revenue generation through farm gate sales and markets will begin to support the pilot project that will fund CSA Food Boxes and their distribution to at-risk community members at no cost. All revenue from sales will be reinvested back into the project to ensure its sustainability. This project will also create new local job opportunities for at-risk populations and aspiring young agrarians.

For further details see supporting document **Attachment B – CSLAC_ERC-ATTACH02**

SECTION 3: DETAILED ANALYSIS			
3.1 Financial Considerations – Cost and Resource Allocations:			
Included in Financial Plan:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Financial Plan Amendment:
Debt Bylaw Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Public/Gov’t Approvals Required:
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

CSLAC has 2 types of activities it supports – projects and programs:

1. **Projects** are short one-off initiatives that have a distinct beginning and end, they are intended to be investigations of novel ideas focused on increasing rural resilience

FOR 2024 – The full \$25,000 CSLAC project fund is available for allocation in 2024.

2. **Programs** are multi-year initiatives – often projects that have moved past the incubation phase – undefined amount per year

Elk Root Conservation has requested \$10,000 for 2024.

Staff provide 3 options -

1. Fully fund the request
2. Partially fund the request - proponents would be grateful for reduced funding if that is all that is available
3. No funding – CSLAC do not further consider funding this request

3.2 Legislative Considerations (Applicable Policies and/or Bylaws):

None at this time

3.3 Environmental Considerations

This project will advocate for food growing practices that support healthy soil and water systems.

3.4 Social Considerations:

This project will support residents to access more locally produced food that is affordable.

3.5 Economic Considerations:

Support for this project will provide economic opportunities across the regional district.

3.6 Communication Considerations:

A communication strategy will be developed as needed.

3.7 Staffing/Departmental Workplace Considerations:

Evaluation of this project proposal is within the Sustainability Planner’s workplan.

3.8 Board Strategic Plan/Priorities Considerations:

Actions to support water monitoring align with the following Board priorities:

1. **Seek opportunities for partnerships with local communities:**
 - Moving towards reconciliation with First Nations through respectful interactions and exploring partnerships
 - Achieve better coordination between the RDCK and local municipalities on common strategic priorities
2. **Strengthen local food systems**

SECTION 4: OPTIONS & PROS / CONS

This report is for information.

SECTION 5: RECOMMENDATIONS

This report is for information.

Respectfully submitted,

Paris Marshall Smith, Sustainability Planner

CONCURRENCE

Chief Administrative Officer – Stuart Horn

General Manager of Development and Community Sustainability Services – Sangita Sudan

Manager of Community Sustainability Services – Dan Seguin

ATTACHMENTS:

Attachment A – CSLAC_ERC-ATTACH01

Attachment B - CSLAC_ERC-ATTACH02

COMMUNITY SUSTAINABLE LIVING ADVISORY (Service 105) EVALUATION for PROJECT INITIATION

This evaluation is the second step in preparing your project for consideration by the Community Sustainable Living Advisory Committee (CSLAC).

1. Fill out the following questions to the best of your ability/knowledge. If you require assistance, contact the Sustainability Planner - pmarshallsmith@rdck.bc.ca
2. Once complete, the project will be reviewed by Staff and brought to the next CSLAC meeting. To be included on the agenda, ensure that forms are received by the 15th of the month before the meeting;
3. **Projects must be submitted by Monday November 14, 2022 to be considered for 2023 planning and budgeting;**
4. Proponents are invited to attend the CSLAC meeting as delegates for discussion and questions; and,
5. Once reviewed and questions satisfied, CSLAC will direct staff to develop a project evaluation in partnership with the project proponent that will eventually go to the Board for review.

PROPOSAL INFORMATION

APPLICANT INFORMATION

Project Proponent: **Elk Root Conservation Farm Society ('Elk Root Conservation' or 'ERC')**

Phone: Land-line: 250 226 6860/direct cell to Kate: 778 995 9695

Email: kate@elkrootconservation.org

PROJECT INFORMATION

Project Title: ERC Regenerative Educational Community Food Gardens ('RECFG')

Project Location: Area H

Identify the geographical location(s) that will benefit from this project: The entire RDCK

Project Classification (water, energy, climate change, food & agriculture or housing):

- 1) food & agriculture; and
- 2) climate change

Estimated Start Date: September 5, 2023

Estimated Completion Date: September 4, 2024

1. Relevance

1(a) What will the project do?

Our planning process has been over 3 years in the making to satisfy ourselves that the Regenerative Educational Community Food Gardens (RECFG) would be a long-term success. With that in mind, we have developed a project plan with the primary goals of:

- 1) addressing local food insecurity of at-risk populations in the RDCK by:
 - a) supplying vulnerable community members with organically grown food for free; and
 - b) access to garden space and expert instruction to learn to grow healthy food at home;
- 2) recovering local food that is currently being wasted; and
- 3) support local food producers to adapt to climate action initiatives proposed by the RDCK.

Elk Root Conservation's (ERC) Regenerative Educational Community Food Garden project will address local food insecurity by dramatically expanding ERC's capacity to grow organic, regenerative food for the

community and increase literacy surrounding the production of healthy food. The project will improve growing and harvest efficiencies, reduce fossil fuel and carbon footprints, address water usage in drought conditions, and divert food waste.

The RECFG will also serve as a 'think-tank' site to continue our agri-tech research and innovation initiatives, while we offer support to local food producers to adapt to climate action initiatives proposed by the RDCK.

Initially this project will be launched and piloted in 2024 at ERC's Educational Demonstration Farm in Vallican BC, with a view to expand operations on selected sites across the RDCK. The intention is to develop a localized system of climate adapted food production, storage and distribution food hubs across the region.

1(b) How will this be achieved?

The ERC Regenerative Educational Community Food Gardens project plan includes a trifecta of environmental conservation, improving the social wellbeing of at-risk community members and the economic wellbeing of our community.

Through the project, community groups will have access to garden plots to learn to grow food, and be supported by ERC staff who will teach organic regenerative gardening skills. There will be demonstration plots for group education, high production plots to efficiently feed at-risk community members, as well as research and innovation plots to support collaborations with local farmers to test climate adaptive strategies to sustainably produce food. This will provide social support to at-risk community members, be educational, and address food insecurity by literally planting the seeds to develop a collaborative and sustainable food production model for the RDCK.

In 2024, revenue generation through farm gate sales and markets will begin to support the pilot project that will fund CSA Food Boxes and their distribution to at-risk community members for free. All revenue from sales will be reinvested back into the project to ensure its sustainability. This project will also create new local job opportunities for at-risk populations and aspiring young agrarians.

For further details see supporting document '*Project Overview: Regenerative Educational Community Food Gardens*'

1(c) Explain why this project is important to our community.

Food security rises to the top of the list of concerns in any community discussions we have attended in the past year on what concerns RDCK community members would like to see addressed by stakeholders, be it government or non-governmental organizations. This was evidenced by our team member's while in attendance this year at the Columbia Basin Trust public open house meetings to engage the community to provide feedback on priorities to include in the renewal of CBT's Columbia Basin Management plan, and the RDCK Climate Action Dialogue Circles and public open house events.

Heightened concerns post- Covid over local food scarcity during emergent pandemic or other climate events like flooding and wildfires that could cut off food supply chains are top of mind. We are in an era of climate change requiring adaptation, mitigation strategies and proactive solutions. Yet it was evident in these meetings there is a great deal of anxiety building in the community as it is yet unclear how to come to a consensus on how to tackle sustainability issues such as climate change and achieving local food security without regulation by RDCK. And since such regulation is not universally popular with constituents and in some instances seen as an unwelcome attempt to infringe on the rights of individuals, there is no simple or clear path forward.

The RECFG project offers a solution to food insecurity. It is a community engaged and supported approach to elevating our local food production system by creating a model that addresses the need for a sustainable and equitable approach to producing, storing and delivering locally produced food in the RDCK. It provides not only physical food for vulnerable community members, but also nourishment of mind and spirit by bringing together community and providing much needed support to regional food producers who are already struggling to make ends meet, yet recognize the need to adapt to the ever-changing climate but do not have the time, know-how or financial support to do what needs to be done to adapt successfully. ERC is poised with the expertise, know-how and community support to have a positive impact and to pilot this project as a viable solution to create a secure local food system in the RDCK that is adaptive and innovative.

1(d) Why is the RDCK best suited to deliver the project?

We believe that supporting this project will help shed a positive light in a tangible way on the benefits to all community members of supporting the goals of the RDCK and CSLAC with respect to sustainability initiatives. And while ERC has significant Federal Government funding support with respect to infrastructure related to this project, we believe that local government is the more suitable partner to support ERC in this type of community level local food security model. Further, by building a partnership as between ERC and RDCK at this pilot stage of the project, when ERC has proven concept and is successful and ready to proceed with regional expansion, RDCK will be the logical partner to assist in the assessment and decision making process with respect to future sites and if potential public land space may be available to support the project's expansion regionally.

1(e) Where will the project take place?

The pilot site for the Regenerative Educational Community Food Gardens will be located at Elk Root Conservation's Educational Demonstration Farm in Vallican, BC. TE

1(f) How many people will directly benefit from the project and who are they?

The following is a table of metrics that estimates quantifiable benefits of the initial pilot site. Please note that with further capital infrastructure investment, there is the potential to have the growing season extended from 9 to 12 months per year. For further details on direct benefits of the project see supporting document '*Project Overview: Regenerative Educational Community Food Gardens*'.

Table of Metrics		
	Before the Project (current)(amount of); or (amount of per:day/week/month/year)	After Project Completion (expected)(amount of) or (amount of per: day/week/month/year)
Volume of Cold Storage	10 cu ft	1644 cu ft
Weight of Food Produced/Distributed	100kg/year	15,000kg/year (expected) <i>(5000kg/year at the end of the grant period plus an additional 10,000kg/year by year 5 post grant period)</i>
Dollar Value of Food Produced/Distributed	\$1,003.00*	\$150,450.00*
<small>*(This is a conservative estimate. Using the comparator of the Kootenay Co-op Grocery Store in Nelson for local prices of produce. Average price of \$10.03/kg for mixed market garden produce taken from the following crops: 1) Carrots \$5.49/kg; 2) Beets \$7.70/kg; 3) Field Cucumbers \$8.80/kg; 4) Broccoli \$8.80/kg; 5) Tomatoes \$13.20/kg; 6) Squash \$6.60/kg; 7) Potatoes \$7.70/kg 8) Cabbage \$6.60/kg; 9) Apples \$8.07/kg 10) Peaches \$13.2/kg 11)Cherries \$19.90/kg 12) Strawberries \$14.33/kg.)</small>		
Length of Growing Season	5 months	9 months
Number of Communities Served	1	8
Number of Community Members Served	150	3500+ (expected)
Number of Food Literacy Programs Offered	5	10

2. Effectiveness

What RDCK structures, systems, issues or opportunities will be addressed? How were they identified?

This project will advance the sustainability objectives at the RDCK through tangible actions that will facilitate social, economic, cultural and environmental change in the areas of: 1) food and agriculture; and 2) climate change.

At Elk Root Conservation we recognize and value the tireless and often thankless work that the RDCK staff and elected representatives do to support our community. Thank you for all that you do.

That said, we also recognize that post-Covid there is an increased level of anxiety and distrust of local government among certain demographics in our region. We have observed this first-hand at public forums and specifically the opposition to change related to sustainability action planning, particularly

related to climate change actions. ERC is here to help alleviate the growing anxiety in our community and we hope, support a shift towards sustainable actions and outcomes.

ERC has a positive and inclusionary reputation in the community. And community support. By piloting our project and achieving positive outcomes, we can assist the RDCK to advance its sustainability objectives by demonstrating the positive impacts that can be made by the people for the people, coming together at the community level with RDCK support. We are ready to equitably feed community and share knowledge with respect to sustainable organic regenerative food production practices and systems such as water smart irrigation systems, pesticide and herbicide-free growing techniques, as well as expertise with respect to accessing funding streams so that other food producers in the RDCK may source funding do the same.

Two such farms we are planning to collaborate with initially are Linden Lane Farms (we are already planning to test a catchment pond liner system here at ERC that they are interested in to see if its unique natural clay composition is a viable option to avoid the use plastic pond liners); and Just-a-Mere Organic Farm where we have begun preliminary discussions regarding the potential of developing native pollinator habitat at Just-a-Mere to effectively eliminate the need to bring in honey bees to pollinate blueberries annually. Mobile bee pollination services are currently common practice. However, using bees to pollinate crops disrupts the regular life cycle of the colony. Colonies used extensively in pollination contracts can suffer from disturbance-related stress and poor nutrition. Both problems have been identified as contributing factors in recent declines in honey bee health and abundance. And lack of pollination means an unsustainable food system and lack of food.

Having Elk Root Conservation as a regional resource to work with farmers to solve these types of environmentally impactful issues and implement tangle solutions will be a positive step towards demonstrating local and viable sustainability actions with positive outcomes in the local food & agriculture industry. (See Letters of Support from Linden Lane and Just-a-Mere organic farms).

In addition, our team members would also be pleased to sit on agriculture & food related sustainability, food insecurity and policy development committees if that would be of assistance to RDCK.

3. Efficiency

3(a) Name 3 objectives and supporting activities of this project.

This pilot project has an ~\$450,000 cash budget. In order to achieve the goals listed in question 1(a), we have multiple objectives and activities that are planned for and will be undertaken.

In order to simplify and focus this application we will identify 3 objectives and activities related to the budget line item we are specifically requesting funding for from CSLAC, which is funding to support the training and placement of Youth Farm Manager Interns into permanent employment positions with ERC and the RECFG project.

OBJECTIVE 1: Increase food production on-site at Elk Root Conservation to feed vulnerable community members. **Supporting Activity 1:** Installation of infrastructure required to create a production space to extend the growing season on-site from 5 to 9 months of the year and feed people year-round through appropriate crop choices, food preservation, storage and distribution.

OBJECTIVE 2: Provide educational opportunities to community members and local producers to increase food production literacy and sustainable organic regenerative food production in the region. **Supporting Activity 2:** Community organizations that support at-risk community members will be invited to apply to ERC for a dedicated garden plot for their members to grow food. Our team will be on-site to help participants to choose what they would like to grow, how to start seeds, transplant, care for, and harvest their produce. In 2023 we began offering our expertise and collaboration opportunities to food producers in order to support climate action initiatives on-farm such as improving biodiversity, water management strategies, and regenerative soil management practices.

OBJECTIVE 3: Expansion of the ERC Paid Youth Internship Program to include management training opportunities with the objective of providing permanent employment opportunities for youth in the RDCK. **Supporting Activity 3:** Recruit and hire three on-farm youth manager interns for the RECFG project. Mentor and train them to become long-term management leaders on-farm for the RECFG project.

3(b) How will the project be evaluated and how will you know if it has been successful? Please see the Table of Metrics in question 1(f).

With respect to Objective 3 and its supporting activity identified in question 3(b), we are off to a successful start with the hiring of Brendon Emmott and Angeline Emmott.

For further details see supporting document: *'Project Overview: Regenerative Educational Community Food Gardens'*.

4. Impact

How will this project influence RDCK systems, structures and or processes in order to create change?

The RECFG project is designed to operate as a working system complete with structures and processes that in and of itself will create transformative social, economic, and environmental changes in the behavior of RDCK stakeholders to create a sustainable and secure food production model.

5. Sustainability

How will this project contribute to advancing sustainability at the RDCK by addressing its social, economic, cultural and environmental priorities?

The Regenerative Educational Community Food Gardens project model is founded on the trifecta of improving the social wellbeing of at-risk community members, the economic wellbeing of our community, cultural and environmental conservation. Highlights of key activities can be found on pages 7-10 of supporting document: *'Project Overview: Regenerative Educational Community Food Gardens'*.

How does it build partnerships and long-term local capacity?

The RECFG project is built on a solid foundation of community support and collaborative effort. At ERC, we openly welcome collaboration on this project with other organizations and are continually developing collaborative relationships with many groups including Indigenous nations. The following is a list of organizations that will be involved in some aspect of the project to achieve positive outcomes:

- i. West Coast Seeds: <https://www.westcoastseeds.com/>;
- ii. Circle of Indigenous Nations Society: <https://www.coinations.net>;
- iii. Kootenay Co-op: <https://www.kootenay.coop>;
- iv. Kootenay Boundary Farm Advisors: <https://www.kbfa.ca>;
- v. Central Kootenay Invasive Species Society: <https://ckiss.ca>;
- vi. Grizzly Bear Co-existence Solutions: <https://kootenayconservation.ca/grizzly-bear-coexistence-solutions/>;
- vii. Winlaw Elementary School;
- viii. Whole School;
- ix. Selkirk College - Community Education; <https://selkirk.ca/ce>
- x. Kootenay Society for Community Living (KSCL) & Bigby Place: <http://www.ksclcastlegar.net>;
- xi. School District 8 - Indigenous Education Program: <https://www.sd8.bc.ca/programs/aboriginal>;
- xii. West Kootenay Beekeepers: <https://westkootenaybeekeepers.ca/bee-awareness-society/>; and
- xiii. Linden Lane Farms: <https://www.lindenlanefarms.ca>
- xiv. Just-a-Mere Organic Farm: <https://justamerefarm.ca>

We recognize that this project cannot run on grant funding alone past the initial start up period of 24 months. Our plan to financially support the project into the future includes generating revenue: i) at outdoor markets and from a farm stand that will be situated at ERC where community members with means can purchase produce so that we can continue to provide food for free to at-risk community members; ii) we will offer the same free workshops that we offer to our participants on a fee basis to the greater community; and iii) we will continue to fundraise (examples include the Elk Root x Honey Candles Community Candle and the West Coast Seeds x Elk Root Custom Seed Pack), and our new sponsorship program that was launched on our website in 2022). We also have a dedicated team of professionally skilled volunteers that have committed to maintaining the equipment and assets in good working order during the lifetime of this project.

6. Participation

In addition to RDCK staff, who will be involved in implementing the project?

Our project team includes individuals that identify as people with diverse abilities, neurodivergent, Indigenous, women in STEM, and LGBTQ2S+. It also includes paid youth Interns, consultants, and countless volunteers including volunteers with professional designations and skill sets including professional agrology, biology, engineering, geography, farm equipment/system design and maintenance.

For bios of key team members, see supporting document pages 4-5: *'Project Overview: Regenerative Educational Community Food Gardens'*.

7. Responsibility

WORK PLAN

Provide brief descriptions of your proposed project activities along with timelines for each.

To ensure the pilot project's success we have hired 2 youth manager trainees and will hire a third. Our goal is that these youth will become our mentors and trainers in the future. In the spring of 2024 they will each have a team of youth Interns that they will supervise under the guidance of our Director of Farm, Orchard & Apiary, Kate Mizenka. And the youth interns they train will become the skilled local workforce that will be available to expand the RECFG project to other sites in the region.

The following is a breakdown of the budget required to train and provide a living wage to the two trainees we currently have on staff for 12 months starting September 5, 2023:

Activity	Overseen by	Start Date	End Date
Mentorship of Youth Manager Interns	Kate Mizenka	Sept 5 2023	September 4, 2024
Training of Youth Manager Interns	Kate Mizenka	Sept 5 2023	September 4, 2024
2 x Manager Intern Living Wage + MERCS	Jarra Ford & Bronwyn Krause	Sept 5 2023	September 4, 2024

8. Funding

PROJECT BUDGET

List specific budget items under each heading to identify your expenses that you require cash for. Round up values to the nearest dollar.

Budget Item	Total Amount Required
Manager Intern Wage & MERCS	\$47,271
Manager Intern Wage & MERCS	\$47,271
Total Amount Required	\$94,542
Total Eligible Funding	\$94,542

REVENUE SOURCES

Who have you identified as contributing to the project? Please identify in the description if it is internal (staff time), external (cash) or in-kind.

CASH REVENUE SOURCES

Source Name	Description	Applied For (Y/N)	Confirmed (Y/N)	Amount
Career Launcher Internship Grants	Federal Government funding	Y	Y	\$20,000
Other Federal Youth Employment Grants* (Eco Canada, Canada Summer Jobs, YESP, Green Jobs)	Federal Government funding	N	N	\$62,000
RDCK CSLAC	Local Government	Y	N	\$10,000
Elk Root Conservation	Applicant	n/a	Y	\$2,542
TOTAL				\$94,542

**The intakes for these federal government grant programs for the 2024 season are not open yet. ERC has a track record of successfully obtaining these types of grants from these organizations to fund our Paid Youth Internship Program.*

IN-KIND SOURCES & CONTRIBUTIONS

Describe what contributions are being made to the project other than cash. (200 words)

Our Director of Farm Orchard & Apiary volunteers all her time to ERC and has agreed to train our youth manager Interns for the pilot of the RECFG project. This will equal 1000s of in-kind hours over the next 12 months. In addition, all the professional volunteers that are working on the project generously mentor and provide skilled training to our youth interns as they work alongside our expert team on this project.

SUPPORTING DOCUMENTS

Are you providing additional material that provides further evidence to support your project idea (such as letters of support, outcomes of community engagement, report executive summaries, quotes, approvals maps, etc)?

List what you are submitting:

1. Project Overview - Regenerative Educational Community Food Gardens
 - a. Schedules include:
 - i. Organic Regenerative Agricultural Practices to be Incorporated
 - ii. RECFG Anticipated Quantitative Results & Table of Metrics
 - iii. ERC Farm - RECFG Project Site Drawing
2. Letters of Support
 - a. Matthew Carr, Owner and Production Manager @ Linden Lane Farms
 - b. Danny Turner, Owner @ Just-a-Mere Organic Farm
 - c. Linda Out, Intermediate Teacher @ Winlaw School
 - d. Daniel Eisen, Outreach Co-Ordinator @ the Kootenay Co-op

QUESTIONS?

Paris Marshall Smith, Sustainability Planner

236-532-2016

pmarshallsmith@rdck.bc.ca

For reference - **EVALUATION CRITERIA FOR PROJECTS**

The CSLAC will evaluate proposals received and will recommend projects to the Board based on the following criteria:

1. **Relevance** - Although a project may engage with RDCK extended community, the primary impacts of the project must be felt in the RDCK and must affect and influence RDCK constituents.
2. **Effectiveness** – How will this project contribute to advancing sustainability at the RDCK by addressing the social economic, cultural and environmental dimensions of sustainability in its planning and in its objectives in alignment with RDCK Integrated Community Sustainability Plan (or 2010 Sustainable Central Kootenay Vision Statement)?
3. **Efficiency** – Does this project have SMART objectives and activities that are Specific, Measurable, Achievable, Relevant and Time limited. Also must define realistic indicators to measure progress.
4. **Impact** – How will this project influence RDCK systems, structures and or processes used by RDCK stakeholders in order to create expectedly positive and transformative change in their behavior and RDCK service delivery?
5. **Sustainability** – How will this project contribute to building a culture of sustainability means the project should provoke positive change, influence current systems, structures and/or processes, to influence a change in behavior towards a more sustainable result. And align with goals in ICSP and Board priorities?
6. **Participation** – Will this project involve a variety of qualified individuals and or partners for the purpose of endorsing and supporting the project during its implementation and following its completion? Participants are expected to support the project to a successful completion.
7. **Responsibility** - The project lead, who is the project’s main contact person and the individual accountable for the projects finances and outputs, must be a RDCK staff or Board.
8. **Funding** - Demonstrate that it is financially worth the investment through comprehensive, pertinent, logical, reasonable and realistic inputs and budget considering the project’s planned goal, expected impacts, objectives, and activities, with alternative sources of funding having been identified where appropriate.

September 24, 2023

To CSLAC,

RE: CSLAC Consideration of Elk Root Conservation Food Security Project

I have been living in the Columbia Basin for 25 years, and have had the pleasure of getting to know Elk Root Conservation Farm Society since their early stages of development and have been able to witness some truly remarkable achievements since its foundation. I am an intermediate teacher at Winlaw School, and hold the belief that there is a growing disconnect between this community, hands-on environmentally responsible sustainable food growing education to support our community, and spaces where they can put such education to use by growing healthy local food. I see in my neighbours, friends, and students, a desire to gain more knowledge and connection with their food and to dig deeper into a sense of place and community here. The educational programming and community focused gardens at Elk Root Conservation will fill this gap.

I have had the opportunity to collaborate with Elk Root Conservation to host events at their educational demonstration gardens that centre on environmental leadership and responsibility, the importance of pollinators to our food system, community building, and connection to the land. Elk Root Conservation is located on a historically and ecologically rich parcel of land in the Slocan Valley. They mirror my personal feelings regarding valuing local Indigenous history and culture, stewardship and the traditional first law of the Sinixt people: the law of the land. Elk Root acknowledges and upholds this responsibility to care and protect for the air, earth, water, and natural world in which we are walking as guests on unceded lands. I see Elk Root Conservation as a venue and a generous host to support the collaboration and mutual learning between the Indigenous people of this land, and local residents of all ages and backgrounds.

Elk Root Conservation has kindly shared their plans for the Regenerative Educational Community Food Gardens Project that they are seeking funding for. It is my belief that the introduction of this program to provide community growing spaces and knowledge sharing will bring vulnerable persons a sense of connection to community through their participation of growing their own food and sharing excess food with community members in need is a vital contribution to the Slocan Valley community and beyond.

Elk Root Conservation's intention through this project of incorporating traditional Indigenous land tenureship techniques and voices, is strongly needed in this community. As I have a personal interest in the development of teaching environmentally sustainable regenerative agriculture practices, I hope to be able to share this amazing opportunity with other members of my community. I have been able to secure funding through BC's "Farm to School" grant, which would allow me to bring groups of children to the farm to participate in some of the educational opportunities that Elk Root Conservation will host in the community farm garden plots. I see this as a fantastic field trip compliment to the existing curriculum here in B.C., and a way for more students to become connected to their food, how to grow it in an environmentally sustainable way, and become capable with these skills.

I am grateful for the guiding light that Elk Root Conservation Farm Society is shining to bring our community together with respect to environmentally sustainable food cultivation and knowledge sharing. Above all else, I am most motivated by getting more diverse members of the public to engage with growing food, ecological stewardship, and sustainable food systems through Elk Root Conservation as I and my students have been able to do.

Please consider this letter to be my wholehearted support of Elk Root Conservation in this project. Feel free to contact me if you have any questions.

Sincerely,

A rectangular box containing a handwritten signature in blue ink. The signature appears to read "Linda Out" with a stylized flourish at the end.

Linda Out

Intermediate Teacher

Winlaw School

linda.out@sd8.bc.ca



September 23, 2023

Danny Turner
Kootenay River Organics Ltd.
2916 Erickson Road
Creston, BC V0B1G1
250 402 8885
danny@justamerefarm.ca

To The CSLAC Committee;

Just-A-Mere Organic Farm is owned and operated by myself and Miranda Turner. We are located in Area B of the RDCK. Since 2011, we have been growing food under the principles of family farms, the value of organic certification, fair prices for farmers, healthy soil, sustainable food systems, and supporting local economics. Each year we welcome a diverse team of fruit pickers, sorters and labourers to help us bring some of the best organic fruit in Canada to our customers.

Just-a-Mere Farm is embarking on a farm renewal and redevelopment project to shift our primary export commodity crop from sweet cherry to highbush blueberry. This is a result of the shifting climate and extreme weather pressures we have observed over the past 5 years, which when coupled with the significant challenges in water supply for the Erickson area, in our opinion will make export-grade organic cherry production in our region uneconomical.

I have met with Kate Mizenka of Elk Root Conservation and after discussing the ERC's vision and mission with Kate, I agree that a research and innovation-based approach to promoting food security and regional production methods for the Kootenay region will create a valuable local resource to elevate the local food system if supported by CSLAC and the RDCK.

Elk Root Conservation has the potential knowledge to assist us with developing a native pollinator habit in the future, leveraging the one acre of riparian habitat we have on our farm. We currently use mobile honeybee pollination services, which are targeted primarily at cherry and apple production and have not necessarily demonstrated efficacy at pollination for blueberry cultivars. Having Elk Root Conservation as a regional resource will allow us to collaborate on this issue and I believe support from the RDCK is critical to building this local competency and developing local production resources for commercial growers in our region.

Please contact me if you have any questions.

Danny Turner
Owner
Just A Mere Farm

September 20, 2023

Daniel Eisen
Outreach Co-Ordinator, the Kootenay Co-op
Email: deisen@KOOTENAY.COOP
Phone: 250-354-4077 ext. 161

To: CSLAC

RE: Support of Elk Root Conservation Farm Society's Application to CSLAC

The Kootenay Co-op grocery is located in the city of Nelson, BC. Our mission is to serve our members and community and strengthen our local food system by providing the highest quality, local, sustainable, and organic products at reasonable prices, in a welcoming environment, with exemplary customer service. We envision thriving communities with resilient food systems, where all people have access to affordable food that is healthy for our bodies, our communities, and the Earth. We have been pleased to support Elk Root Conservation through sponsorships and donations as their value's align with own.

Specifically, we currently sponsor Elk Root Conservation's Bee Safari Program and Educational offerings. These quality programs are one-of-a-kind in the region, and serve to connect us all to the importance of pollinators to our local food security.

We are thrilled to hear that Elk Root Conservation is taking the step to secure further funding to support youth manager internships for their Regenerative Educational Demonstration Community Food Project. We believe their passion for educating and supporting at-risk community members and expertise in organic regenerative food production will ensure the success of their project.

We value our partnership with Elk Root Conservation and look forward to continuing the relationship.

Sincerely,



Daniel Eisen
OUTREACH COORDINATOR
777 Baker Street, Nelson BC, V1L 4J5
250.354.4077 ext. 161 | www.kootenay.coop

LINDEN LANE
ESTD FARMS 2012

September 12, 2023

Linden Lane Farms
3850 Krestova Road
Krestova, BC

To The CSLAC Committee;

We are a family operated farm located in Krestova, situated at the southern mouth of the Slocan Valley. The farm is 150 acres consisting of a mixture of forest, pasture and fields on amazing sandy-loam soils. Currently, we cultivate over six acres, where we produce our diverse selection of vegetables, small fruits and nursery plants. Our products are available at local farmer's markets, through our CSA box program and at local grocery stores.

I do not think that I can overstate the impact and benefit that Elk Root Conservation's unique demonstration farm, gardens, and educational programming will have to support the RDCK farming community if supported by CSLAC and the RDCK.

Their project and plans to regionally support local food security by producing food and educational opportunities for vulnerable community members and support local farmers through research, innovation, education and assistance with navigating channels to access funding to adapt in the face of climate change will give farmer's support they need to take climate adaption measures that is currently lacking in the RDCK.

We look forward to continue to feed local community members as we have for 3 generations and having Elk Root Conservation as a local resource we can count on with support and funding from the RDCK.

Please feel free to contact me if you require further information or have any questions.

Sincerely,



Matthew Carr

Owner & Production Manager



PROJECT OVERVIEW

Regenerative Educational Community Food Gardens

Prepared for: RDCK Community Sustainable Living Advisory Committee (CSLAC)
Prepared by: Elk Root Conservation Farm Society

September 25, 2023

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SCHEDULE A: **Organic Regenerative Agricultural Practices to be Incorporated into the RECFG**

SCHEDULE B: **RECFG Anticipated Quantitative Results & Table of Metrics**

SCHEDULE C: **ERC Farm - Project Site Drawing**



REGENERATIVE EDUCATIONAL COMMUNITY FOOD GARDENS

Project Description

We are so excited to be presenting to the RDCK CSLAC the pilot phase of our strategic plan for ERC's Regenerative Educational Community Food Gardens!

Our planning process has been over 3 years in the making to satisfy ourselves that the Regenerative Educational Community Food Gardens (RECFG) would be a long-term success. With that in mind, we have developed a project plan with the primary goals of: 1) addressing local food insecurity of at-risk populations in the RDCK; 2) providing our community with access to garden space to learn to grow healthy food; and 3) recovering local food that is currently being wasted. Elk Root Conservation's (ERC) Regenerative Educational Community Food Garden (RECFG) project will address local food insecurity by dramatically expanding ERC's capacity to grow organic, regenerative, food for the community and increase literacy surrounding the sustainable production of healthy food. The project will improve growing and harvest efficiencies, reduce fossil fuel and carbon footprints, and divert food waste. Initially this project will be launched and piloted in 2024 at ERC's Educational Demonstration Farm in Vallican BC, with a view to expand operations on carefully selected sites across the RDCK to provide a localized system of food production, storage and distribution food hubs across the region.

The RECFG at ERC will be the initial pilot site. Community groups will have access to garden plots to learn to grow food, and be supported by ERC staff who will teach organic regenerative gardening skills. There will be demonstration plots for group education, and high production plots to efficiently feed at-risk community members. This will provide social support to at-risk community members, be educational, and address food insecurity by ensuring successful and sustainable food production.

In 2024, revenue generation will begin to support the project through farm gate sales and markets that will fund CSA Food Boxes and their distribution to at-risk community members for free. All revenue from sales will be reinvested back into the project to ensure its sustainability. This project will also create new local job opportunities for at-risk populations and aspiring young agrarians.

In the following pages, we look forward to sharing some of the highlights of our plan to pilot a trifecta of environmental conservation, improving the social wellbeing of at-risk community members, and the economic wellbeing of our community through the Regenerative Educational Community Food Gardens at ERC.

We hope you will be as inspired by the project as we are. Enjoy the read!

Regenerative Educational Community Food Gardens

Project Team

Our project team includes individuals that identify as people with diverse abilities, neurodivergent, Indigenous, women in STEM, and LGBTQ2S+. It also includes paid youth Interns, consultants, and countless volunteers including volunteers with professional designations and skill sets including professional agrolgy, biology, engineering, geography, farm equipment/system design and maintenance. All are 100% committed to the success of this grass roots community project. With all of those skills it was tough to chose who to highlight in this plan overview! Below is a snap shot of five of our key team members. We would be pleased to provide further information about our team and answer any questions that CSLAC may have with respect to individual team members.



Project Team Leader: Kate Mizenka (LL.B, BA adv.)
ERC's Board Chair & Director of Farm, Orchard & Apiary

Kate Mizenka is the creator of the Sustainable Apiary Model and designer of ERC's Educational Demonstration Farm. She is an avid advocate of organic regenerative agriculture, pollinator wellness, and environmental education, conservation and restoration. Her passion for growing community and protecting our planet is woven into the fabric of all we do here at ERC. She is the creative mind behind ERC's organic regenerative agriculture research and innovation striving towards a world where agricultural practices go hand-in-hand with environmental conservation. In 2023, Kate was awarded the Suzy Hamilton Legacy Fund Award in recognition of her contributions as a female-identified environmental activist in the West Kootenay. Kate is not only a retired lawyer, entrepreneur and multinational business advisor, she is an expert educator, beekeeper, and 'beyond' organic regenerative grower and sought-after speaker. She has shared her knowledge and insights across the country. Kate volunteers her time to Elk Root Conservation while she continues to live with traumatic brain injury, spinal degeneration and chronic pain. Her ability to lead through adversity, her empathy towards vulnerable community members, and her 'outside-the-box' approaches to making ERC accessible and welcoming to all our diverse community members is truly an inspiration to all who experience the Elk Root magic.



On-Farm Project Leads:
Brendon Emmott, (Pharm. D.) & Angeline Emmott, (BSc.)
Market Garden & Orchard Manager; and Native Plant Nursery & Gardens Manager

Meet Brendon and Angeline Emmott, ERC's dynamic sibling duo on-farm management team. These siblings found their dream calling when by chance they both landed a job at Elk Root Conservation.

Brendon's relevant experience includes local and international in-field food production and farmer's market operations. For Brendon, the Regenerative Education Community Food Gardens project brings together so many different yet interconnected pillars of sustainable wellbeing for the RDCK community. Health has always been his biggest intention on his journey into food and sustainable agriculture, whether it's people, plants or planet. Brendon's big heart will know doubt bring life to all he grows.

Angeline's relevant experience includes environmental biology, restoration ecology and and working in native plant nurseries and on small-scale ecological farms. Ang's passion for and knowledge of native plants, ecology, nature education, and regenerative food systems and not to mention deep sense of kindness and empathy makes them an invaluable member to this project's leadership team.

Regenerative Educational Community Food Gardens

Project Team Continued...



Education & Culture Lead: Olivia Belaney, B.Sc., B.Ed.
Ojibway, Teme-Augama Anishinaabe, Temagami First Nation
ERC's Director of Culture & Education

Olivia is a recent addition to our team at Elk Root Conservation. She has a Bachelor of Science in Biological Science from the University of Guelph and is also a certified BC teacher with a Bachelor of Education from UBC. Olivia participated in the West Kootenay Teacher Education program which is a program offered by UBC and is focused on rural education. She has taught in the BC public school system in our community for four years.

Olivia is also an Indigenous woman who has a strong connection to the Earth and all beings and despite being disconnected from the land of her people growing up was drawn to working to help the Earth in some way as we face major challenges such as climate change and food insecurity. She feels a strong connection to Elk Root Conservation's mission to protect, restore and enhance the habitat where we live.

Olivia is very passionate about moving towards sustainable practices, helping vulnerable community members and providing educational opportunities for our community. She also looks forward to connecting with the Indigenous Peoples in our community and collaborating on projects and learning opportunities.



Lead Agrologist: Rachael Roussin, A.Ag
Kootenay Boundary Farm Advisors

Rachael has a Masters' degree in Land and Water Systems from the faculty of Land and Food at UBC and brings over 10 years' of experience coordinating environmental and agricultural programs and projects. Her technical background includes soil science, soil capability for agriculture, watershed management and climate change impacts and opportunities for agriculture. Rachael is an Environmental Farm Plan Advisor for BC, is an educator on soil health and agricultural land, has operated a market garden, managed her local farmers' market, and sits on several food and agriculture boards and committees. Rachael's is the program lead and coordinator for the Kootenay and Boundary Farm Advisor program (KBFA). KBFA is an agricultural extension program that supports producers to improve agricultural production and efficiency by helping find solutions to farm-specific production issues, coordinating educational events and connecting producers to information (www.kbfa.ca).

LIST OF ELK ROOT CONSERVATION DIRECTORS

Directors

Our Board consists of 7 members, and 5 are located in the RDCK. Our other 2 board members are avid conservationists and bring valuable contributions with respect to legal expertise, project management and educational planning at the post secondary institution level.

Name: Kate Mizenka
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Email: kate@elkrootconservation.org
Phone Number: 778 995 9695

Name: Joseph-Andre Pagé
Office Held: Vice-Chair
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Name: Genowefa Mielguj
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Phone Number: 250 505 0493



EXPECTED PROJECT OUTCOMES & BENEFITS

SOCIAL

1) **Development of Community Gardens and Greenhouse System at ERC.** Community organizations that support at-risk community members will be invited to apply to ERC for a dedicated garden plot for their members to grow food. Our team will be on-site to help participants to choose what they would like to grow, how to start seeds, transplant, care for, and harvest their produce. We will work directly with each organization to set dedicated days and times to visit their garden plots and ensure participants have access to our team member's expertise to support them in growing fantastic food! And if they are unable to visit their plots for an extended period, our team will tend and care for the organization's plot for them. In due respect, we will also have a plot for the dedicated use of ERC's local Indigenous neighbours.

2) **Inclusion of Communal & Demonstration Plots in the RECFG.** There will be communal and demonstration plots in the gardens. Why? It is often more efficient to group certain crops together. For example corn is wind pollinated and requires certain spacing and types to be grouped together for success. Demonstration plots are valuable teaching tools for our participants to trial innovative growing techniques to improve food production in the gardens. The food grown in these plots will be included in ERC's Community Supported Agriculture Food Box Program and distributed to at-risk community members, between the community organizations that have dedicated plots at the RECFG, and volunteers.

3) **Food Recovery.** In addition to the food grown in the RECFG that will be distributed to at-risk community members, our plan also includes recovery of fruit, nuts and berries already being grown in a small food forest where we are located that is going to waste. The food forest on the property is young, with over 100+ orchard trees that will start abundantly producing in the next 1-8 years. We anticipate thousands of kilograms of fruit will be produced and could be diverted from the waste stream and shared with the community in the coming years.

4) **Collaborative Effort.** At ERC, we openly welcome collaboration on this project with other organizations and are actively developing collaborative relationships with many groups including Indigenous nations. A key action of this project plan is collaboration with the following organizations in order to achieve positive project outcomes:

- i) West Coast Seeds: <https://www.westcoastseeds.com/>;
- ii) Circle of Indigenous Nations Society: <https://www.coinations.net/>;
- iii) Kootenay Co-op: <https://www.kootenay.coop/>;
- iv) Kootenay Boundary Farm Advisors: <https://www.kbfa.ca/>;
- v) Central Kootenay Invasive Species Society: <https://ckiss.ca/>;
- vi) Grizzly Bear Co-existence Solutions: <https://kootenayconservation.ca/grizzly-bear-coexistence-solutions/>;
- vii) Winlaw Elementary School & Whole School;
- viii) Selkirk College - Community Education; <https://selkirk.ca/ce>
- ix) Kootenay Society for Community Living (KSCL) & Bigby Place: <http://www.ksclcastlegar.net/>;
- x) School District 8 - Indigenous Education Program: <https://www.sd8.bc.ca/programs/aboriginal/>;
- xi) West Kootenay Beekeepers: <https://westkootenaybeekeepers.ca/bee-awareness-society/>; and
- xii) Linden Lane Farms: <https://www.lindenlanefarms.ca>
- xiii) Just-a-Mere Organic Farm: <https://justamerefarm.ca>

SOCIAL CONT'D...

- 5) **Building Community, & Sharing Knowledge and Experience.** To our knowledge, nothing else like Elk Root Conservation's Educational Demonstration Farm exists in BC. It has become a community hub where everyone knows they are welcome and supported. In 2022/23 we successfully piloted social programming in the pollinator gardens and a paid youth internship program. We will incorporate these programs into the Regenerative Educational Community Food Gardens project. Listed below are the specific programs we will be offering:
1. **RECFG Hands-On Learning Program:** Schools, and organizations that support at-risk community members may apply to have their own plot at the gardens. Our Interns and expert team will be on-hand to care for the plots when the groups are not able to and also will provide hands-on learning when the groups visit. Kootenay Society For Community Living & Bigby Place and Winlaw School are two such groups that will be participating in this program.
 2. **Indigenous Cultural Knowledge Sharing:** Elk Root Conservation is located adjacent to the ancestral Sinixt village site of n'kʔáwx̄tən, in Sinixt təm̄x̄w̄úlaʔx̄w̄ (mother earth) and within the Agricultural Land Reserve (ALR) at the confluence of the Slokan River and Little Slokan Rivers. It is a historically and ecologically rich parcel of land. Elk Root Conservation is in a unique position to support Indigenous cultural knowledge sharing and reconciliation through reconnection to land & space @ ERC. We acknowledge and value local Indigenous history and culture, stewardship and the traditional first law of the Sinixt people: the law of the land. ERC acknowledges and upholds this responsibility to care and protect the air, earth, water, and natural world in which we are walking as guests on unceded lands. We see the Regenerative Educational Community Food Gardens as a venue to support the collaboration and mutual learning between the Indigenous peoples of this land, and local residents of all ages and backgrounds. We have offered tobacco and asked permission that we may work to teach and feed community in this təm̄x̄w̄úlaʔx̄w̄. We intend to give back in ways that honour the land and support a resilient, healthy and well fed community.
 3. **Bee Safari's @ ERC:** This one-of-a kind program has received rave reviews. The program teaches school-aged children to learn to revere, not fear bees. They even get to suit up in white bee suits and interact directly with the bees. As part of this project, we will add a new module to the Bee Safari program to teach children in the RECFG about the importance of bees and pollinators to our food production and local food security.
 4. **Paid Youth Internship Program:** We had 8 youth participate in this program in 2022, and there was a wait list this season! Fun Friday mentorship workshops are just one of the learning highlights.
 5. **Senior's Volunteer Learning Program:** We will have volunteer opportunities for retirees & seniors to learn about and care for the gardens alongside our youth interns under the supervision of our expert food production team.
 6. **Workshops & Courses:** Over time, we will develop workshops that will be taught in the RECFG based on the techniques and innovations described in Schedule A: **Regenerative Organic Agricultural Practices to be Incorporated at ERC.** Other examples of potential workshops include: i) soil testing and natural amendment use to 'fertilize'; ii) no-till techniques for carbon sequestering; iii) cover cropping for soil health & invasive species management; iv) mulching & growing garden mushrooms; v) garden integration: medicinal, pollinator, and companion planting for optimal plant & human health; vi) riparian land stewardship techniques; and viii) backyard gardening.
 7. **Support for Local Food Producers, Research & Innovation:** Our team can't wait for the opportunity to share the exciting research and innovation projects that are on the go at ERC. In 2022 we collaborated with Selkirk College Innovates to support a student intern to participate in the study of ERC's cutting edge innovations on parasitic mite management in honey bee colonies. In 2023 we began offering our expertise and collaboration opportunities to food producers in order to access grant funding to support climate action initiatives on-farm such as improving biodiversity, water management strategies, and regenerative soil management practices to sustain healthy food production into the future in the RDCK.

ENVIRONMENTAL

- 1) **The Organic Regenerative Agriculture (ORA) Standard:** The term “organic regenerative” is used to distinguish a kind of farming that goes beyond sustainable. It is the practice standard we have set for ERC and for the RECFG project. ORA not only maintains environmental resources but improves them. The number one priority in organic regenerative agriculture is soil health. Soil health is intrinsically linked to the total health of our food system. Soil health affects everything from plant health to human wellbeing and the future of our planet. Regenerative prioritizes soil health while simultaneously encompassing high standards for animal welfare and worker fairness. The idea is to create farm systems that work in harmony with nature to improve quality of life for every creature involved.
- 2) **ORA @ the RECFG:** At the RECFG “organic regenerative” will encompass a holistic approach to farming that will encourage continuous innovation and improvement to agricultural practice for the benefit of our local community’s environmental, social, and economic wellbeing. Since the RECFG is located at ERC’s Educational Demonstration Farm, we are able to protect the environment not only through employing ERC’s innovative agricultural practices but by sharing knowledge of them with our community. While ERC was officially ‘certified organic’ by the Kootenay Organic Growers Society in July 2023, our practices in the Regenerative Educational Organic Community Food Gardens will go ‘beyond’ organic. For example, we will not use chemical sprays approved for certified organic farming as such sprays can seep down into ground water and also kill beneficial insects and pollinators. We will also be conscious of reducing our plastic footprint and will not use heavy black plastic ground covers for weed control commonly used on organic farms. Essentially, we will do our best wherever possible to work with nature to find solutions to food production challenges that benefit the environment and our community. And we look forward to incorporating this environmentally conscious approach into the RECFG project. See Schedule A at the end of this Plan Overview for examples of ERC Agricultural Innovations & ORA techniques that will be used to grow food at the Regenerative Educational Community Food Gardens.



Pest control @ ERC: a wasp snacking on a white cabbage moth larva

ECONOMIC

- A. **Economic Relief Through Food Access & Recovery.** The 3 primary goals of this RECFG project are: 1) addressing local food insecurity of at-risk populations in the RDCK; 2) providing our community with access to garden space to learn to grow healthy food; and 3) recovering local food that is currently being wasted. Achieving these goals will provide economic relief to those in need, so they can focus their monetary resources elsewhere and still have access to nutritious healthy food. With ERC's innovative agricultural practices employed, our productivity per square foot surpasses production averages, the result being an increased volume per square foot of high quality food that in turn supports a greater number of community members. For example, in one of our regenerative organic test plots this past season, we produced 300 pounds of tomatoes on 10 plants.
- B. **Paid Internship & Youth Employment Opportunities.** The RECFG will provide economic relief not only through food access and recovery, but also employment opportunities for youth and at-risk community members. The following are two examples of programs we offer at ERC for people of diverse abilities and youth:
- A. ERC collaborated with Kootenay Society for Community Living to offer the opportunity for Bigby Place residents to visit us at ERC to learn life and gardening skills. During this pilot program we identified the potential of incorporating a part-time employment program into the RECFG project that would not just be a learning and social opportunity for participants, but also an economic opportunity to be paid for their time spent at ERC. As part of RECFG's programming, we intend to collaborate with KSCL to source grant funding to run a part-time paid Internship program for KSCL members with diverse abilities.
 - B. With grant funding from Federal Government youth employment programs and wage top up from ERC, in 2023 we supported 8 paid youth internship positions. ERC's Paid Internship Program has developed a reputation as a unique and inclusionary training opportunity unavailable anywhere else in the region. We had a waitlist this season even in these times when labour shortage is occurring on farms. It has been so much fun and a great success! Of those 8 all of them would have liked their internships to have been longer and to have stayed on with us. Three of the 8 continue to volunteer with us, 2 currently work remotely employed part-time while back at University, and 3 are currently continuing their training as part of ERC's new RECFG Management Training Program. ERC's Paid Internship Program will be a part of the RECFG project. It will provide employment opportunities for post-secondary students and aspiring young agrarians. This will be an invaluable resource for farms experiencing labour shortages in the region as we will elevate the knowledge and interest of our local youth to be involved in local food production. This not only is an opportunity to share ORA practices that support our environment and local food access, but keeps our community's youth living locally to support economic growth in our region.
 - C. Also, we intend to research grant supported employment opportunities for seniors who would like to learn about growing their own food, still desire to work or are required to work due to lack of retirement savings.
- C. **Long-term Maintenance of the Project.** We recognize that this project cannot run on grant funding alone past the initial start up period of 24 months. Our plan to financially support the project into the future includes generating revenue: i) at outdoor markets and from a farm stand that will be situated at ERC where community members with means can purchase produce so that we can continue to give food for free to at-risk community members; ii) we will offer the same free workshops that we offer to our participants on a fee basis to the greater community; and iii) we will continue to fundraise (examples of ERC fundraising are the first annual jack-o-lantern sale we held in fall of 2022, our West Coast Seeds Sale Fundraiser, and our new sponsorship program that was launched in fall 2022). We also have a dedicated team of professionally skilled volunteers that have committed to maintaining the equipment and assets in good working order during the lifetime of this project.

DESCRIPTION OF HOW FUNDS WILL BE USED

The RECFG project has been designed specifically to connect youth and community members not only with their food system, but also with each other. Weekly education on site during the growing season for participant community groups will provide opportunities for community members to gather, learn, create, and share food. The programming will connect our community to the land through collaboration with local Indigenous groups and history, as well as be a venue to showcase local talent through community events. Educational experiences and opportunities that will be made available to participants who will learn about organic regenerative agriculture, growing food in a manner in line with the local ecosystem (i.e. incorporating native plants) and working with the natural system, rather than against it. This will occur through both group workshop-style educational instruction, as well as one-on-one instruction by our experts in the field in an accessible way. Furthermore, the increased access to healthy, organic food for children and families will allow more kids to fully participate in important learning about their environment, and be healthily engaged with solutions in the face of the climate crisis.



PROJECT BUDGET

Infrastructure Items & Materials

Elk Root Conservation has successfully raised over \$320,000.00 in funds to date to purchase essential capital infrastructure for this project.

Funding partners to date include:

- Local Food Infrastructure Fund: \$298,810 (Canadian Federal Government)
- Community Development Grants: \$5,000 (RDCK - Local Government)
- Slokan Valley Federated Co-op: \$5,000
- Savoy Equipment Donation: \$8637.12
- Clean BC Rebates: \$4100.00
- West Coast Seeds Sponsorship: In-kind donation of all seeds for the production of food

PROJECT BUDGET

Infrastructure Items & Materials Cont'd

We have confirmed corporate sponsorship from West Coast Seeds to supply seeds for this project, and are also launching the WCS x Elk Root Conservation Custom Seed Pack in November 2023 to raise funds for educational programming that will be offered in the RECFG. West Coast Seeds custom seed pack program is an incredible fundraising opportunity for our project as other similar seed packs have raised \$90,000 to date for Food Banks Canada: <https://dailyhive.com/vancouver/bonnie-henry-flower-seeds>



Project infrastructure installation is well underway and we have reached our goal of sourcing adequate funding to purchase enough essential infrastructure to begin growing food for community and providing educational programming in 2024. We are currently seeking an additional \$250,000 in funding to purchase additional infrastructure to improve food production and distribution capacity to include: commercial grade kitchen/food processing facility, long term food storage facility and clean energy delivery through purchase of an electric refrigeration truck, and electrical infrastructure upgrades to support such equipment. Elk Root Conservation will be continuing to raise funds by actively connecting with organizations and applying to applicable provincial grant programs such as the BC Gaming Grant, IAF administered farm funding grants, as well as non-governmental organizations grant programs, and also seeking corporate and individual sponsorships.

Our Ask of CSLAC

Human Resource & Training Expenses

The Regenerative Educational Community Food Gardens Project will create multiple skilled jobs in our rural community. ERC has chosen to continue its mission of educating and providing unique skilled job opportunities through the Elk Root Conservation Paid Youth Internship Program to support local youth to become future community leaders. However, this comes at a cost to our organization as countless mentorship hours and training go into each youth Intern. Therefore, we are asking for financial support from the RDCK CSLAC in the amount of \$10,000 to support a living wage for youth Interns as they train to become our local community leaders of tomorrow.

PROJECT BUDGET

Our Ask of CSLAC Cont'd

Two youth interns that funds from CSLAC would support are sibling dream team Brendon Emmott and Angeline Emmott. Unlike many siblings who can't get far enough away from each other, Brendon and Angeline had dreamed of one day running their own regenerative farm, with a deep-seated commitment to making a true environmental impact.

“Working at Elk Root Conservation feels like a dream come true,” said Brendon. “Every one of us is here for a purpose, to contribute positively to our community and our planet. Being part of such a dynamic and purposeful team has been hugely inspiring. It’s even more special that one of the people I get to work alongside is my sibling Ang, someone who has always supported and inspired me. We talked about doing something like this together for so long, and now here we are - and it’s wilder than we could have ever imagined!”



Brendon’s focus is on market garden and orchard production, while Angeline’s focus is on improving biodiversity and pollination through the integration of high value native pollinator host and food plants into the project in collaboration with Indigenous community members.

“This initiative is a seed we had planted long ago, and to have Elk Root behind it all feels amazing,” shared Angeline.

“This project revolves around the foundations of what food and agriculture should be: Health, Land, Connection, Community, Sustainability, Reciprocity, and Regeneration,” Brendon added. The current impacts of Elk Root cannot be understated, it’s no doubt that we have already made positive ripples in our community. I’m grateful to be a part of this organization and to have such an incredible, diverse community around us to support us. I’m excited to bring my ideas to the table (and field)! I hope to influence the ways that people grow, understand, appreciate and enjoy their food.”

FUNDING RECOGNITION

Elk Root Conservation will happily recognize and showcase the support received from CSLAC, in both private and public streams including internal and external communications regarding the project i.e.:

- Social media shout-out
- Grand opening (speeches etc.)
- Branded signage on-site
- News Release

Many Thanks

Thank you so much for your consideration of our Regenerative Educational Community Food Garden project. We welcome any questions you may have.

We hope the RECFG project will provide access to healthy food, recovery of food destined to be waste, and create a sense of belonging for our participants in the local community. Not only feeding bodies, but nurturing souls and our planet as well.

Thank you!

The Elk Root Crew



Elk Root Conservation Paid Youth Internship Program 'Fun Fridays'

Native Plant Identification Workshop:
Katie, Beck, Jamie, Ashley & Mya

SCHEDULE A

Organic Regenerative Agricultural Practices to be Incorporated into the RECFG

Listed below are just some examples of ERC Agricultural Innovations & ORA techniques that will be used to grow food at the Regenerative Educational Community Food Gardens. At ERC we are always thinking ‘outside-the-box’ to improve how to produce food; not just to sustain, but regenerate the planet and inspire our community. ERC’s growing techniques been field tested and we look forward to employing them to benefit the community on a larger scale as part of this project.



ERC’s ‘Pod Fencing’ Design: Farming in the Slocan Valley comes with its challenges and one of those challenges is wildlife pressure. Without the installation of large game fencing this project would not be possible. Fencing of food production areas avoids conflict with wildlife and the creation of nuisance bears. However, it is common practice to fence entire farms properties which disrupts wildlife corridors and connectivity as large game can no longer travel through large land areas. It is not necessary to fence entire farms and in fact detrimental to the natural balance of farm ecosystems.

With more and more people exiting urban areas and looking for guidance on how to fence to protect the food they are growing, ERC’s Pod Fencing Design will demonstrate how to protect food production areas and leave wildlife corridors connected and intact.

Organic Regenerative Mobile Greenhouse System: One of the challenges to local food access is finding ways to extend our growing season to produce fresh produce earlier in the spring and later in the fall. Greenhouses can extend the growing season approximately 4 months. And from a knowledge sharing perspective, a greenhouse will lengthen our time to offer field trips and educational programming to students during the school year. **So Why Mobile?**

Crop Rotation Efficiency: Multiple crops can be covered in a given year - early season crops that like cool spring weather continue to grow after the tunnel has been moved to cover warm season crops. And full season warm crops that require warmed soil to germinate can be started earlier under cover (such as corn);

Regenerates Soil Health: Movable greenhouses i) control soil problems by exposing the soil to the purifying effects of sun, rain, wind, snow, and freezing temperatures; ii) avoids increased pest pressure and soil borne disease issues that are often problems for stationary greenhouses; and iii) allows for cover cropping once the greenhouse is moved to regenerate soil health; and

Energy Efficient: Eliminates the expense of cooling the greenhouse when planning for fall/winter harvestable crops. While summer crops are in the greenhouse growers can sow outdoors in the field where the greenhouse will move.

Continued...Organic Regenerative Agricultural Practices to be Incorporated into the RECFG



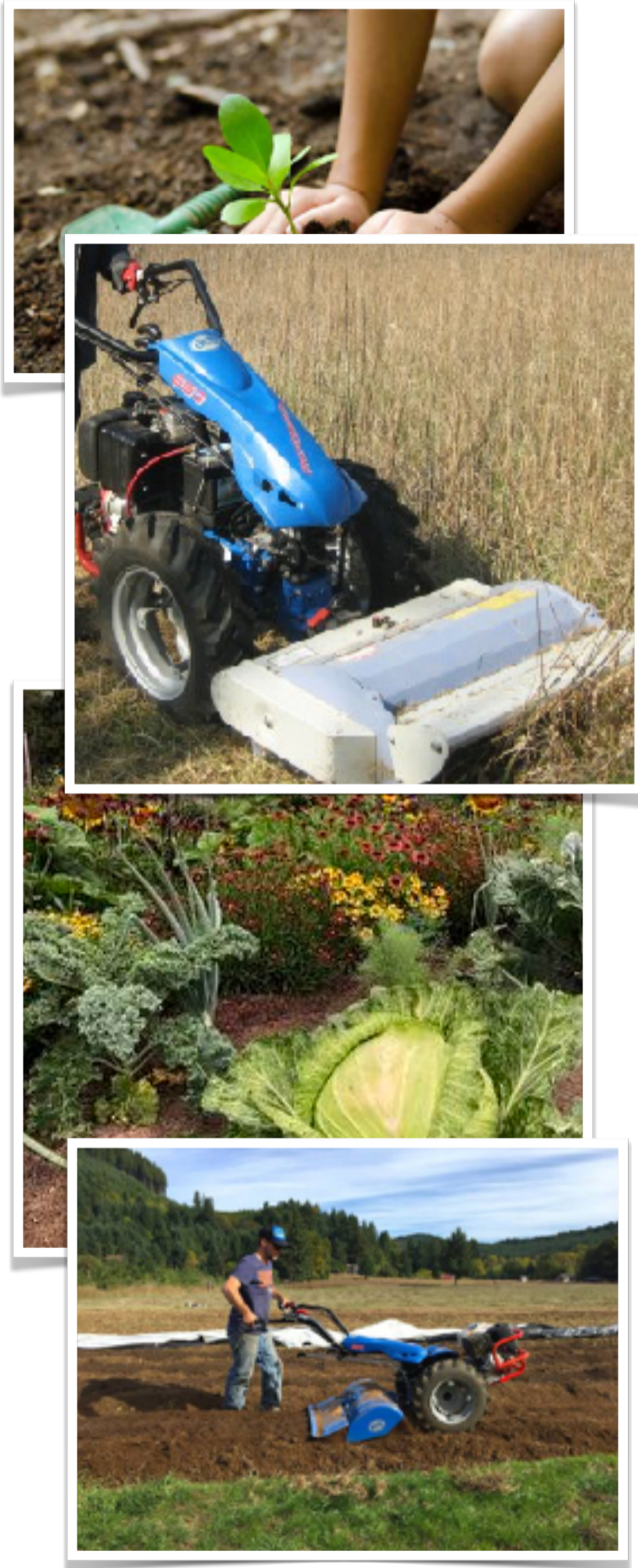
ERC's Version of Vertical Farming: Vertical farming is all the rage. However, our expert team at ERC is not convinced that is the best approach for increased food access in the Slocan Valley. Instead, ERC will use our own version of vertical farming in the RECFG, which incorporates nutrient rich soil instead of growing in water, natural sunlight instead of using high cost facilities and the expense of artificial light energy, and organic regenerative intercropping with legumes for soil regeneration while intensely planting using a square foot gardening model that utilizes vertical trellises where appropriate to optimize productivity and a positive ratio of food production to wild habitat to support biodiversity at ERC.

Hügelkultur: The Ultimate Raised Garden Beds: Hügelkultur, pronounced *hoo-gul-culture*, is a gardening technique that originated in Germany. The word means "hill culture," and describes this growing method perfectly. Hügel beds are made of compostable materials atop large logs. This creates a nutrient-rich mound that you can sow plants into. Since the mounds create nutrients and retain moisture, it's an efficient, low-labor gardening method that regenerates soil. It is also perfect for dry hot climates as it requires minimal to no irrigation once established. Ideal for addressing the impacts of climate change.

Water-Saving Irrigation System: Drip irrigation and high efficiency sprinklers will be installed in the RECFG as well as a natural rain water catchment system. A well designed drip irrigation system benefits the environment by conserving water. A properly installed drip system can save as much as 80% of the water normally used in other types of irrigation systems. This is key to addressing water shortages that are becoming more frequent in BC in the summer growing season. Last summer all RDCK Area H water licence holders were required to reduce water intake by 30% during the drought period. Without a water saving irrigation system, RECFG could potentially run out of water and crops would perish.

ERC's Sustainable Apiary Model: In the face of climate change and other stress factors, it has become clear that bee wellness will suffer without innovative approaches to keeping bees. The sustainable apiary model has been in development since 2017 with funding in part from the BC government through the IAF BeeBC Program. We were also successful in applying to the IAF Agri-Tech Grant program in fall 2021 to complete the final phase of this model. Selkirk College invited us to share the first phase of this model through a 5-part course commencing in March 2022. It includes a webinar, and 4 field days at ERC and focuses on Part 1 of SAM: planting for pollinators. In the future, we intend to teach one of the field days in the RECFG to demonstrate pollinator interactions in food gardens. **All revenue from this course will go to support the RECFG.**

Continued...Organic Regenerative Agricultural Practices to be Incorporated into the RECFG



BCS Walk-Behind Tractor: We have included in this project budget a walk-behind tractor. At ERC we have the expertise to run and maintain farm equipment of all shapes and sizes, therefore this is a sound investment. And for a project of this scale, the most economical and useful tool will be a BCS tractor with interchangeable implements.

What is it? : As its name states, a walk-behind tractor is a tractor—that is, a power source that can operate multiple implements, just like a four-wheel farm tractor. A true walk-behind tractor shares the same durable, high-quality design one would expect in a traditional tractor: all-gear drive, automotive-style clutch, engine, and shaft-driven implements. The big difference with a walk-behind is that it is smaller, only has a single axle, has a set of handlebars rather than a steering wheel, and, obviously, you walk behind it rather than ride atop it

What are the benefits to this project? : For the correct scale, walk-behinds are extremely practical. They're great for up to 2 acres of garden which is perfect for our project that requires some mechanization but not a four wheel tractor which is excessive in most instances except in the initial stages of this project and for occasional large jobs. They are user friendly as they have an electric start option, are very stable, take very little space to maneuver, and cause minimal compaction to soil. Because this project is transforming an area to grow food, ground preparation is required. Beds will be constructed by clearing and building up soil, flay mowing, chipping and shredding green material to build soil through compost creation, the list goes on.

Why not rent? : We will be using this piece of equipment on a daily basis for the first months of this project. And then weekly during the first 2 years of the project. And beyond the first 2 years will continue to be used to ensure the future success of the project. Therefore, on a cost-benefit analysis of rent or purchase, purchasing is more economical. It is not just the rental fee, but pick-up and delivery costs, administrative co-ordination costs, and availability of such a rental option. We have not had success in the past renting from the local organization that has these tractors available either due to lack of availability and/or disrepair. And also, soil contamination from farms that claim to grow organically but do not follow a standard leave the garden and the community we are feeding vulnerable to soil contamination and other soil born disease.

SCHEDULE B

RECFG Anticipated Quantitative Results & Table of Metrics

Anticipated Quantitative Results

The quantitative value added of the proposed project is:

1. 16,440% increase in cold storage volume.
2. 15,000% increase in food produced and distributed.
3. 15,000% increase in dollar value of food produced/distributed.
4. 80% increase in length of growing season.
5. 700% increase in the number of communities served.
6. 2233% increase in the number of community members served.
7. 100% increase in food literacy programs.

Table of Metrics		
	Before the Project (current)(amount of); or (amount of per:day/ week/month/year)	After Project Completion (expected)(amount of) or (amount of per: day/week/month/year)
Volume of Cold Storage	10 cu ft	1644 cu ft
Weight of Food Produced/ Distributed	100kg/year	15,000kg/year (expected) <i>(5000kg/year at the end of the grant period plus an additional 10,000kg/year by year 5 post grant period)</i>
Dollar Value of Food Produced/Distributed	\$1,003.00*	\$150,450.00*
<p><i>*(This is a conservative estimate. Using the comparator of the Kootenay Co-op Grocery Store in Nelson for local prices of produce. Average price of \$10.03/kg for mixed market garden produce taken from the following crops: 1) Carrots \$5.49/kg; 2) Beets \$7.70/kg; 3) Field Cucumbers \$8.80/kg; 4) Broccoli \$8.80/kg; 5) Tomatoes \$13.20/kg; 6) Squash \$6.60/kg; 7) Potatoes \$7.70/kg 8) Cabbage \$6.60/kg; 9) Apples \$8.07/kg 10) Peaches \$13.2/kg 11)Cherries \$19.90/kg 12) Strawberries \$14.33/kg.)</i></p>		
Length of Growing Season	5 months	9 months
Number of Communities Served	1	8
Number of Community Members Served	150	3500+ (expected)
Number of Food Literacy Programs Offered	5	10

SCHEDULE C

ERC Farm - Project Site Drawing



Legend

- 1- Large Stationary Greenhouse*
 - 2 - Seeding Greenhouse*
 - 3 - Secured Warehouse Storage & Electric Equipment Charging Station*
 - 4 - Wildlife & Rodent-Proof Farm Stand (solar roof panel power system)*
 - 5 - Pick-up/Delivery Warehouse with Walk-In Produce Cold Storage*
 - 6 - Thermophilic Compost Area*
 - 7 - Future Community Kitchen Space*
 - 8 - Orchard & Food Forest
 - 9 - Educational Demonstration Pollinator Gardens & Apiary
 - 10 - Native Plant Educational Demonstration Gardens
 - 11 - Native Plant Nursery
 - 12 - Bee Barn
 - 13 - Rain Catchment Pond System: Biodiverse Irrigation
 - 14 - Tool Shed with Access on Either Side*
 - 15 - Gazebo Outdoor Classroom
 - 16 - Washrooms/Food Safe Harvest Area*
- * project infrastructure to be installed



4010 Passmore Lower Road

Vallican, BC CANADA

www.elkrootconservation.org

for this application contact:
kate@elkrootconservation.org

 [@elkrootconservation](https://www.instagram.com/elkrootconservation)



Committee Report

Date of Report: November 10, 2022 (carried over)
Date & Type of Meeting: October 17, 2023, Community Sustainable Living Advisory Committee
Author: Paris Marshall Smith, Sustainability Planner
Subject: LIVING LAKES GROUND WATER MONITORING
File: 5200-20-CSLAC-Projects-LLC
Electoral Area/Municipality All

SECTION 1: EXECUTIVE SUMMARY

This report provides Step 2 of Community Sustainable Living Advisory Committee project evaluation for a funding application from Living Lakes for the 2024 Phase of the Columbia Basin Groundwater Monitoring Program. The full project evaluation can be found as **Attachment A – CSLAC_LLC-ATTACH01**

This report is for information.

SECTION 2: BACKGROUND/ANALYSIS

This report provides Step 2 of Community Sustainable Living Advisory Committee project evaluation for a funding application from Living Lakes for the 2024 Phase of the Columbia Basin Groundwater Monitoring Program. Living Lakes Canada has requested \$10,000 to expand the ground water monitoring program throughout the RDCK.

OVERVIEW – from the application

Living Lakes Canada's (LLCs) Columbia Basin Groundwater Monitoring:

- To understand the long-term (since 2017) water level trends in local aquifers to help maintain healthy freshwater resources for people, animals, and ecosystems, and,
- To inform future decisions about groundwater.

The Basin Groundwater Monitoring project established three new volunteer observation wells (VOWs) in Creston this year with funding from an Area B Community Development Grant and provincial and other funding sources, as well as new wells in Nelway, Box Mountain, and Slocan Park.

Objectives for 2024:

1. ongoing data collection in the 16 VOWs in the Regional District of Central of Kootenay (RDCK),
2. expand the data collection network and establish new VOWs, and

- continue to share data publicly to educate and socialize the community on groundwater topics. This will be achieved by building on LLC’s successful program to date.

BACKGROUND

As glaciers melt, surface water resources become less reliable, and precipitation is less predictable, climate change is creating water uncertainty. Groundwater resources in the RDCK are generally poorly understood. The aquifers are generally small and fragmented and the impact of climate change and increased extraction for drinking and irrigation is unknown.

Greater understanding through increased monitoring will assist in ensuring supplies are sustainable for residents and nature into the future. This project will continue to collect long-term groundwater level trends and publish data publicly to inform future watershed planning efforts, licensing and policy, and drinking water protection and management.

SECTION 3: DETAILED ANALYSIS

3.1 Financial Considerations – Cost and Resource Allocations:

Included in Financial Plan:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Financial Plan Amendment:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Debt Bylaw Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Public/Gov’t Approvals Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

CSLAC has 2 types of activities it supports – projects and programs:

- Projects** are short one-off initiatives that have a distinct beginning and end, they are intended to be investigations of novel ideas focused on increasing rural resilience

FOR 2024 – The full \$25,000 CSLAC project fund is available for allocation in 2024.

- Programs** are multi-year initiatives – often projects that have moved past the incubation phase – undefined amount per year

Living Lakes Canada has requested \$10,000 for 2024.

Staff provide 3 options -

- Fully fund the request
- Partially fund the request - proponents would be grateful for reduced funding if that is all that is available
- No funding – CSLAC do not further consider funding this request

3.2 Legislative Considerations (Applicable Policies and/or Bylaws):

None at this time

3.3 Environmental Considerations

This project supports the goals of the RDCK Water Governance Initiative and priorities that emerged from the

Integrated Community Sustainable Planning process. Key action steps for communities seeking to protect their watershed compiled by the Watershed Governance Initiative team include establishing monitoring, reviewing watershed data, and building relationships. Currently there are 16 VOWs in areas B, E, F, G, H, K, and the municipality of Castlegar. These VOWs would continue to be monitored for long-term trends adding to the baseline data already being collected in the RDCK. Further, additional VOWs would be included in other priority areas. By increasing the VOWs throughout the region, understanding of current monitored aquifers, as well as establish water level data on currently unmonitored aquifers.

3.4 Social Considerations:

This project will further unite communities across the district to advance Phase 3 of the Watershed Governance Initiative.

3.5 Economic Considerations:

Support for this project will provide economic opportunities across the regional district.

3.6 Communication Considerations:

A communication strategy will be developed as needed.

3.7 Staffing/Departmental Workplace Considerations:

Evaluation of this project proposal is within the Sustainability Planner's workplan.

3.8 Board Strategic Plan/Priorities Considerations:

Actions to support ground water monitoring align with the following Board priorities:

- 1. Seek opportunities for partnerships with local communities:**
 - Moving towards reconciliation with First Nations through respectful interactions and exploring partnerships
 - Achieve better coordination between the RDCK and local municipalities on common strategic priorities

- 2. Protect our water sources**
 - Develop comprehensive watershed management plan with all stakeholders and include them in OCP
 - Crown land logging and private land logging have limited impact on the quality and quantity of water available to RD residents for drinking and recreation

- 3. Establish a governance model for watershed management in the RDCK**
 - The RDCK determines what available tools it has to protect watersheds

SECTION 4: OPTIONS & PROS / CONS

This report is for information.

SECTION 5: RECOMMENDATIONS

This report is for information.

Respectfully submitted,

Paris Marshall Smith, Sustainability Planner

CONCURRENCE

Chief Administrative Officer – Stuart Horn

General Manager of Development and Community Sustainability Services – Sangita Sudan

Manager of Community Sustainability Services – Dan Seguin

ATTACHMENTS:

Attachment A – CSLAC_LLC-ATTACH01

Attachment B - CSLAC_LLC-ATTACH02



COMMUNITY SUSTAINABLE LIVING ADVISORY (Service 105)

EVALUATION for PROJECT INITIATION

This evaluation is the second step in preparing your project for consideration by the Community Sustainable Living Advisory Committee (CSLAC).

1. Fill out the following questions to the best of your ability/knowledge. If you require assistance, contact the Sustainability Coordinator or General Manager of Development Services;
2. Once complete, the project will be reviewed by Staff and brought to the next CSLAC meeting. To be included on the agenda, ensure that forms are received by the 15th of the month before the meeting;
3. **Projects must be submitted by November 15, 2020 to be considered for 2021 planning and budgeting;**
4. Proponents are invited to attend the CSLAC meeting as delegates for discussion and questions; and,
5. Once reviewed and questions satisfied, CSLAC will direct staff to develop a project evaluation in partnership with the project proponent that will eventually go to the Board for review.

PROPOSAL INFORMATION

APPLICANT INFORMATION

Project Proponent: Living Lakes Canada

Phone: 778-802-8392

Email: groundwater@livinglakescanada.ca

PROJECT INFORMATION

Project Title: 2023 Phase of the Columbia Basin Groundwater Monitoring Program

Project Location: Regional District of the Central Kootenays

Identify the geographical location(s) that will benefit from this project: All 11 electoral districts; A, B, C, D, E, F, G, H, I, J & K.

Project Classification (water, energy, climate change, food & agriculture or housing) : Water, Climate Change and Agriculture

Estimated Start Date: April 2023

Estimated Completion Date: March 2024

The CSLAC will evaluate proposals received and will recommend projects to the Board based on the following criteria. Respond to the following questions using as much space as needed. Please use page 5 & 6 for your answers.

See the list at the end of this worksheet for more information on each category.

1. Relevance

What will the project do? How will this be achieved?

Living Lakes Canada's (LLCs) Columbia Basin Groundwater Monitoring Program has been collecting and sharing groundwater level data across the basin since 2017. The primary goal of this program is to understand the long-term water level trends in local aquifers to help maintain healthy freshwater resources for people, animals, and ecosystems. By collecting long-term groundwater level data and publishing this data publicly, high quality information can be used to inform future decisions about groundwater. This program partners with existing well owners to collect water level data and engages community members in data collection to inspire public understanding and involvement in water resource management. This proposed project of the Columbia Basin Groundwater Monitoring Program has 3 main objectives; (1) ongoing data collection in the 16 Volunteer Observation Wells (VOWs) in the Regional District of Central of Kootenay (RDCK), (2) expand the data collection network and establish new VOWs, and (3) continue to share data publicly to educate and socialize the community on groundwater topics. This will be achieved by building on LLC's successful program to date. The Program established three new VOWs in Creston this year with funding from an Area B Community Development Grant and provincial and other funding sources, as well as new wells in Nelway, Box Mountain, and Slocan Park. The Program has processes, tools and a team already in place to collect and share data.

Explain why this project is important to our community.

This project is important to RDCK communities, because we are currently in a time of water uncertainty as glaciers melt, surface water resources are becoming less reliable, and precipitation becomes less predictable. The groundwater resources in the region are generally poorly understood. The aquifers are generally small and fragmented and we do not know how aquifers will be impacted by climate change and extraction by people. The province is only monitoring 2 of the 57 mapped aquifers in the region. Groundwater is an important resource for people in the region with many private domestic wells supplying water to homes, especially in rural areas, and many water supply systems relying on groundwater. Understanding these groundwater resources will assist in ensuring supplies are sustainable for people and nature into the future. It is more important than ever to understand and preserve this resource for future generations. This project will further allow the success of the Program by continuing to collect long-term groundwater level trends and publishing data publicly to inform future watershed planning efforts, licensing and policy, and drinking water protection and management.

Why is the RDCK best suited to deliver the project?

The RDCK is best suited to help deliver this project because this project supports the goals of the RDCK Water Governance Initiative and priorities that emerged from the Integrated Community Sustainable Planning process. Key action steps for communities seeking to protect their watershed compiled by the Watershed Governance Initiative team included establishing monitoring, reviewing watershed data, and building relationships. This project will further unite communities across the district to advance Phase 3 of the Watershed Governance Initiative. Currently there are 16 VOWs in areas B, E, F, G, H, K, and the municipality of Castlegar. With RDCK funding, these VOWs would continue to be monitored for long-term trends adding to the baseline data already being collected in the RDCK. Further, additional VOWs would be included in other priority areas. By increasing the VOWs throughout the region, we can improve our understanding of currently monitored aquifers, as well as establish water level data on currently unmonitored aquifers. This funding would allow for the communities of the RDCK to work together towards preserving our shared resources and a creating more sustainable future.

Where will the project take place?

This project will take place in all electoral areas and municipalities. It will allow ongoing collection of data in existing VOWs (in areas B, E, H, F, K, G and the municipality of Castlegar) and the project will work in other electoral areas and municipalities to establish new VOWs. Support from the RDCK will help LLC secure funding from the provincial government and other organizations to continue to collaborate with communities in all electoral districts in the RDCK to

collect groundwater data. The Program works closely with individuals who volunteer their wells for monitoring, including First Nations, municipalities, water supply system operators, and private well owners. Groundwater management and protection is important to everyone because clean, fresh water is central to our economy, ecosystems, and health.

How many people will directly benefit from the project and who are they?

All area residents of the RDCK would benefit from this project. In particular, this project will support communities that withdraw groundwater, including water supply systems managed by the RDCK and those managed by other organizations as well as homes and industries that are on private wells. Reliance on groundwater as a supply of freshwater affects domestic, commercial, industrial, and agricultural uses. Current water use habits are causing surface water resources to be stressed and the effects of climate change are compounding these issues. The data collected through the 2023 - 2024 project of the Columbia Basin Groundwater Monitoring Program will be critical to informing groundwater management resources during these uncertain times. Lastly, all data acquired throughout this program will be publicly available - First Nations, academics, consultants, water supply operators, activists, business owners, statutory decision-makers, and politicians all have access to the data. This education and socialization will help to preserve freshwater resources for humans, animals, and ecosystems for future generations.

2. Effectiveness

What RDCK structures, systems, issues or opportunities will be addressed? How were they identified?

The proposed project gives the RDCK a concrete ability to advance its sustainability and water governance goals. Service 105, the Community Sustainable Living Advisory Committee, is committed to advancing objectives identified during the Integrated Sustainable Planning process. One of the items outlined as a priority in this report is *water protection and advocacy*. This project is a tangible opportunity to address that specific priority by addressing the concerns of the community members. The RDCK established water as one of the five areas to be addressed by the RDCK's Sustainability Services. Drinking water is essential to our communities and the RDCK recognizes the importance of effectively managing its 19 water systems - 7 of which are groundwater wells. The RDCK's Water Governance Initiative has indicated that the Living Lakes Canada's Columbia Basin Water Hub is a key instrument for actionable steps to provide effective drinking water management, which is a crucial objective of this project. In summary, by investing in publicly accessible long-term water level data and community socialization and education, we can help form the basis for future watershed planning and drinking water protection.

The need for data was identified by residents and organizations in the RDCK. Since Living Lakes Canada began the Groundwater Monitoring Program, all VOWs were established based on requests from residents and organizations concerned about their water resources. The province of British Columbia is monitoring similar water level parameters within the Provincial Groundwater Observation Well Network scattered throughout the Province. Though, there are currently only 2 Provincial Groundwater Observation Wells in the RDCK, monitoring 2 of the 57 mapped aquifers in the region. Drilling a new well can be expensive and it is not a sustainable way or cost-effective way to get the data we need. Therefore, this Program collaborates with existing well owners rather than drilling new wells. Collaboration across jurisdictions and with various partners is an effective way to get the data needed to effectively manage water at a large scale.

In 2021, LLC received requests to monitor groundwater in the Canyon area. Living Lakes Canada received an *Area B Community Development Grant* to partially support increased monitoring in that area. The goals of this grant were to engage partnerships in the community to identify existing wells that could be used for monitoring and sharing the data publicly. Within a year, three new VOWs were established and data collection began in the spring of 2022. Continuous, long-term funding from the RDCK has the opportunity to benefit the community for generations through the collection of quality data and using funds from the RDCK as matching funding to bring other fundraising sources to the region.

The effectiveness of this program is further demonstrated by the success of a similar program in the Regional District of Nanaimo (RDN). The RDN has been working for over a decade to assess groundwater resources for their constituents. First, they assessed which aquifers were being monitored by the Provincial Groundwater Observation Well

Network. They then used a priority matrix to identify key data gaps needed to assess water security. Next, they initiated an outreach program to connect with landowners to find existing wells that could fill these data gaps. This program has been extremely successful and has doubled the number of wells monitored in their region and closed many data gaps. The RDN project is funded by their “Drinking Water and Watershed Protection Service”. The RDN and Living Lakes Canada programs have been developed concurrently and both programs are sharing ideas. The RDN said that one of their project goals was to inspire similar programs in other regions, but that funding is the biggest barrier to the success of these types of programs. Link to their website for more information: <https://www.rdn.bc.ca/groundwater-monitoring>.

3. Efficiency

Name 3 objectives and supporting activities of this project.

The 2023-2024 stage of the Columbia Basin Groundwater Monitoring Program has three main objectives:

1. Maintain current data collection efforts in the 16 Volunteer Observation Wells (VOWs) in the RDCK:
 - a. Three visits to each well per year to download and review data, collect manual water level measurements for calibration and quality assurance, provide maintenance to the installed water level loggers, and
 - b. Engage well owners in data collection to increase community engagement and groundwater literacy;
2. Expand the data collection network and establish new VOWs:
 - a. Identify priority areas for monitoring in collaboration with communities and other organizations and projects,
 - b. Identify and assess pre-existing wells to determine their feasibility for monitoring
 - c. Establish a partnership with the well owner to monitor groundwater water levels in these wells;
3. Continue to share data publicly to educate and socialize the community on GW topics:
 - a. Process data from VOWs and share data publicly on the [Columbia Basin Water Hub](#), [Depth2Water](#), and WGI story map,
 - b. Engage community members by involving well owners in volunteer data collection efforts,
 - c. Host outreach programs in the community, engage local youth, and
 - d. Actively share and promote data with key water stakeholders such as drought response teams, BC Wildfire, etc.

How will the project be evaluated and how will you know if it has been successful?

The success of this project will be determined by five performance indicators:

1. The number of VOWs established (#),
2. The number of aquifers/VOWs being monitored (#),
3. The number of publicly available data sets (#)
4. The number of community members engaged (#), and
5. The number and variety of data use stories (#).

Three of these performance indicators relate directly to the data collected. Increasing the number of VOWs and aquifers being monitored will increase the number of data sets, therefore reducing the number of data gaps for groundwater management. All indicators will be assessed based on a comparison of the numbers before and after the implementation of the proposed project.

The final two indicators for the success of this program relate to the education, engagement, and socialization of the project within our communities. This project will evaluate the total number of community members engaged through initiatives such as VOWs, volunteer events, youth engagement programs, and outreach initiatives. Finally, this program will assess its effectiveness based on the volume and variety of the data use stories that are collected. Data use stories are an effective way to understand who and how the data is being used for water management. All indicators will be

assessed based on a comparison of the numbers before and after the implementation of the project.

4. Impact

How will this project influence RDCK systems, structures and or processes in order to create change?

This project has the power to increase RDCK's contributions toward the sustainability of our shared resources and supporting ecosystem services. Groundwater is significant for human, animal, and ecosystem health and proper management of this resource will play a key role in water security as a response to climate change. Water level measurements from observation wells are crucial to understanding how aquifers respond to hydrological, anthropogenic, and climate change stresses. A stable network of water level monitoring will provide essential data to evaluate changes in groundwater over time and will form the basis for watershed planning and drinking water and protection services. It will allow decision-makers to make educated recommendations for the benefit of area residents and the local environment. This will positively impact the longevity of industries, businesses, individuals, animals, and ecosystems within the RDCK community.

5. Sustainability

How will this project contribute to advancing sustainability at the RDCK by addressing its social, economic, cultural and environmental priorities?

The priorities of the RDCK reflect those of its constituents and the Integrated Community Sustainability Planning process demonstrated that the area residents' priorities include *water protection and advocacy*. Further, they also indicated that climate change, natural areas, and agricultural land are important to residents and groundwater is central to these systems and there are many examples of this. The water supply in lakes and streams in the RDCK is sustained by groundwater and helps maintain low temperatures crucial for fish health. Further, irrigation for agriculture often relies on groundwater and without a stable, reliable source there could be adverse impacts on the agri-food economic network in the RDCK. Groundwater is also the main source of domestic water supply for many rural, low-income homes due to the limited availability of public services. Additionally, water is incredibly important for many Indigenous groups' spirituality and groundwater is no exception. By addressing the sustainability of groundwater through our program, the RDCK can address the sustainability of social, economic, cultural, and environmental priorities.

How does it build partnerships and long-term local capacity?

Sustainability is a collaborative process and this project harnesses community by working with private well owners, First Nations, governments, and industry to build partnerships in the local communities. Due to the nature of this project, long-term data and long-term relationship building are crucial for project success. This project has received funding from TD Friends of the Environment, the Province of British Columbia, Columbia Basin Trust, and ECO Canada and was previously awarded funding from the RDCK for a Community Development grant in Area B. The RDCK funding will be used to leverage additional funding this year and in future years. Thus contributing to continuing local capacity building and the longevity of the Program.

6. Participation

In addition to RDCK staff, who will be involved in implementing the project?

Living Lakes Canada will be the leading organization for this project. The organization has many resources such as regional field technicians for data collection and logger installation and maintenance, groundwater experts for reviewing, processing, and uploading the data to the public portals, and a wide network for educating and engaging the community in groundwater initiatives. Well owners who volunteer their wells to the program are also involved by

allowing their wells to be accessed and their data to be shared publicly. These well owners can access the data through Bluetooth on their phones, but hold no responsibility for data downloading or management. Well owners include municipalities, First Nations, and private landowners. Furthermore, Living Lakes Canada employs the advice of geological, hydrological, First Nations, and political experts to prioritize and plan the establishment of new wells. Provincial and local government officials are also consulted and have supported the goals and objectives of the overall program.

7. Responsibility

WORK PLAN

Provide brief descriptions of your proposed project activities along with timelines for each.

Activity	Overseen by	Start Date	End Date
Spring Monitoring (Visit well sites, download data, maintain monitoring equipment and connect with well owners)	LLC Regional GW Technicians/Well owners	April 2023	April 2023
Summer Monitoring (Visit well sites, download data, maintenance and connect with well owners)	LLC Regional GW Technicians/Well owners	July 2023	July 2023
Fall Monitoring (Visit well sites, download data, maintenance and connect with well owners)	LLC Regional GW Technicians/Well owners	October 2023	October 2023
Identify priority areas (aquifers) for monitoring (Consult with RDCK and community members)	Groundwater Program Manager/Groundwater Data Manager	April 2023	April 2024
Identify and assess existing wells for their suitability for monitoring (Desktop review of well construction reports and available information, site visits as required)	Groundwater Field Manager/Groundwater Program Manager	April 2023	April 2024
Establishing New VOWs (agreements with well owners, install equipment, well upgrades if needed)	Groundwater Program Manager/ Groundwater Field Manager	June 2023	August 2023
Community Outreach (student engagement, well owner engagement and sharing data)	Groundwater Program Manager	April 2023	October 2023
Data Management (data processing and uploading to the portal)	Groundwater Data Manager	April 2023	November 2023
Hydrogeological Consulting	Hydrogeology Consultants	April 2023	April 2024

(data management advisors, data portal maintenance when needed)	(e.g. GW Solutions / Associated Environmental)		
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8. Funding

PROJECT BUDGET

List specific budget items under each heading to identify your expenses that you require cash for. Round up values to the nearest dollar.

Budget Item	Total Amount Required
Program manager (budget tracking, grant reporting, fundraising, program development)	25,000
Data and field manager (process the data, order loggers and uploading/sharing data)	23,000
Regional Groundwater Technicians (travel to well sites, coordinate meeting well owners, download data and install new loggers)	10,000
Monitoring Supplies (Data Loggers, batteries, tools)	10,000
Travel (Mileage, Accommodation, Meals)	6,000
Communications	6,000
Administration	6,400
Total Amount Required	76,400
Total Eligible Funding	76,400

REVENUE SOURCES

Who have you identified as contributing to the project? Please identify in the description if it is internal (staff time), external (cash) or in-kind.

Source Name	Description	Applied For (Y/N)	Confirmed (Y/N)	Amount

Living Lakes Canada	Staff time	Y	Y	6,000
TD friends of Environment	Cash	Y	Y	3,500
Province of British Columbia	Cash	Y	Y	56,900
Volunteer Observation Well Owners	In kind	N	Y	
RDCK CSLAC	Cash	Y	N	10,000
Technical/Scientific Advisors	In-kind	N	Y	

IN-KIND SOURCES & CONTRIBUTIONS

Describe what contributions are being made to the project other than cash. (200 words)

The Program has support from experts working in the field such as hydrogeological consultants, government staff, and academics. They act as advisors on the scientific aspects of the Program, often as in-kind support. In addition, we work closely with water supply operators, drillers, and well pump installers. Their time and support are critical to the success of the technical portion Program and are often secured in-kind or at a reduced rate. Finally, the well owners who volunteer their wells are extremely important to the long-term sustainability of this Program. Drilling new wells is costly and time-consuming, partnering with existing well owners is a cost-effective way to collect data that are needed to effectively manage water resources.

Are you providing additional material that provides further evidence to support your project idea (such as letters of support, outcomes of community engagement, report executive summaries, quotes, approvals maps, etc)?

List what you are submitting:

1. Map of Volunteer Observation Wells overlaid with RDCK areas
2. Testimonials from student engagement with Selkirk College
3. Program Brochure

ADDITIONAL INFORMATION

Is there anything else you would like to add that has not already been mentioned?

Data currently shared on BC Real time data tool (<https://agrt.nrs.gov.bc.ca/Data>) and Depth to water portal (<https://depth2water.gwsolutions.ca/client/living-lakes-canada/#/wells>) this project will improve data sharing on these platforms.

The Living Lakes Canada website is an up to date resource for a summary of the Columbia Basin Groundwater Monitoring Program. (<https://livinglakescanada.ca/project/columbia-basin-groundwater-monitoring-program>)

QUESTIONS?

Paris Marshall Smith, Sustainability Coordinator
236-532-2016

For reference - EVALUATION CRITERIA FOR PROJECTS

The CSLAC will evaluate proposals received and will recommend projects to the Board based on the following criteria:

1. **Relevance** - Although a project may engage with the RDCK extended community, the primary impacts of the project must be felt in the RDCK and must affect and influence RDCK constituents.
2. **Effectiveness** – How will this project contribute to advancing sustainability at the RDCK by addressing the social economic, cultural and environmental dimensions of sustainability in its planning and in its objectives in alignment with RDCK Integrated Community Sustainability Plan (or 2010 Sustainable Central Kootenay Vision Statement)?
3. **Efficiency** – Does this project have SMART objectives and activities that are Specific, Measurable, Achievable, Relevant and Time limited. Also must define realistic indicators to measure progress.
4. **Impact** – How will this project influence RDCK systems, structures and or processes used by RDCK stakeholders in order to create expectedly positive and transformative change in their behavior and RDCK service delivery?
5. **Sustainability** – How will this project contribute to building a culture of sustainability means the project should provoke positive change, influence current systems, structures and/or processes, to influence a change in behavior towards a more sustainable result. And align with goals in ICSP and Board priorities?
6. **Participation** – Will this project involve a variety of qualified individuals and or partners for the purpose of endorsing and supporting the project during its implementation and following its completion? Participants are expected to support the project to a successful completion.
7. **Responsibility** - The project lead, who is the project’s main contact person and the individual accountable for the project's finances and outputs, must be a RDCK staff or Board.
8. **Funding** - Demonstrate that it is financially worth the investment through comprehensive, pertinent, logical, reasonable and realistic inputs and budget considering the project’s planned goal, expected impacts, objectives, and activities, with alternative sources of funding having been identified where appropriate.

Please use these pages for your responses to the application questions.



Columbia Basin Groundwater Monitoring Program

Regional District of Central Kootenay
Community Sustainable Living Advisory Committee
November 29th, 2022



Kayla Harris
Groundwater Program Manager
Kayla@livinglakescanada.ca

Presentation Overview

- Introduction
 - Living Lakes Canada (LLC)
 - LLC Groundwater Monitoring Program
- Groundwater and the importance to the RDCK
- Proposed Project - \$10,000 from the RDCK
- Questions





Living Lakes Canada
collaborates to protect
water in a changing
climate.

RDCK's commitment to sustainability

The RDCK recognizes the importance of protected water sources for drinking, habitat, and recreation by providing effective management of its 19 water systems and being an advocate for safe, clean, and abundant water.

Integrated Community Sustainability Plan 2010

- All residents should have access to clean water
- Water conservation is a priority for all water users

Watershed Governance Initiative

Possible action steps for communities seeking to protect their drinking water watersheds, 2022

- Establish monitoring – upload to Columbia Basin Water Data Hub
- Build relationships – Living Lakes Canada



Columbia Basin Groundwater Monitoring Program

Objectives

1. Collect hourly groundwater level measurements to determine how levels change seasonally and from year to year;
2. Share data publicly for others to use; and
3. Engage citizens in data collection and share data in easy-to-interpret formats to increase knowledge and awareness about groundwater

Our Collaborators

- Well owners volunteer their wells for monitoring. These include municipalities, First Nations, and private landowners. Using existing wells is a way to educate the community members while ensuring the long-term suitability of the program by saving costs.
- LLC team, hydrogeologists, provincial government
- Funders: Provincial Government, Foundations, RDCK

RDCK Area B Community Development Grant 2021

- 3 new LLC volunteer wells established
- Well owner engagement and publicly available data
- New provincial monitoring well



Why bother?

Water supply

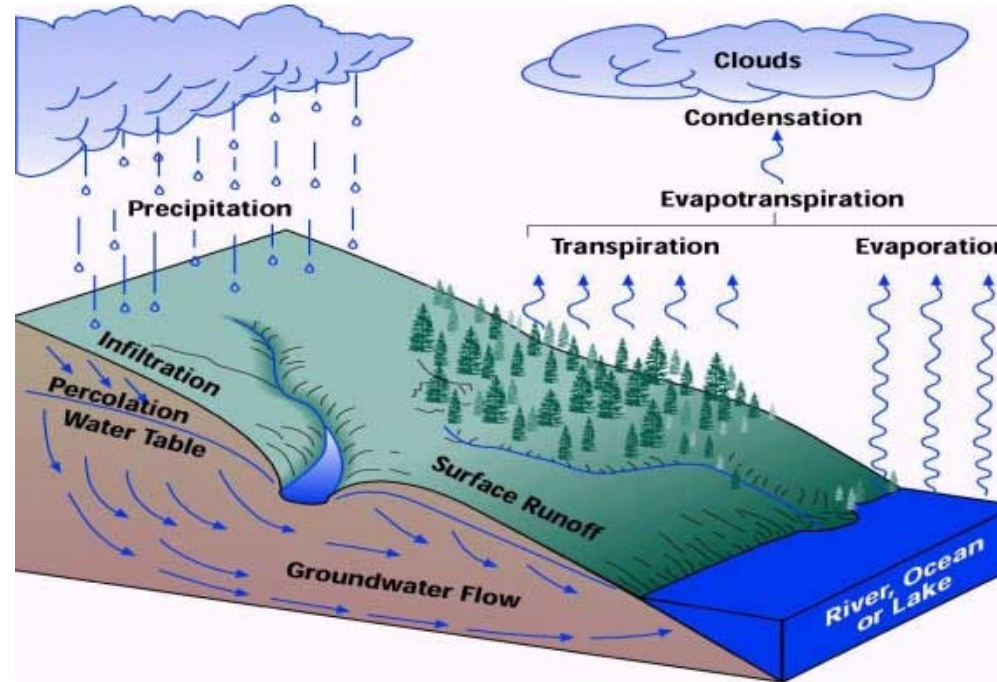
- Domestic
- Agricultural
- Industrial

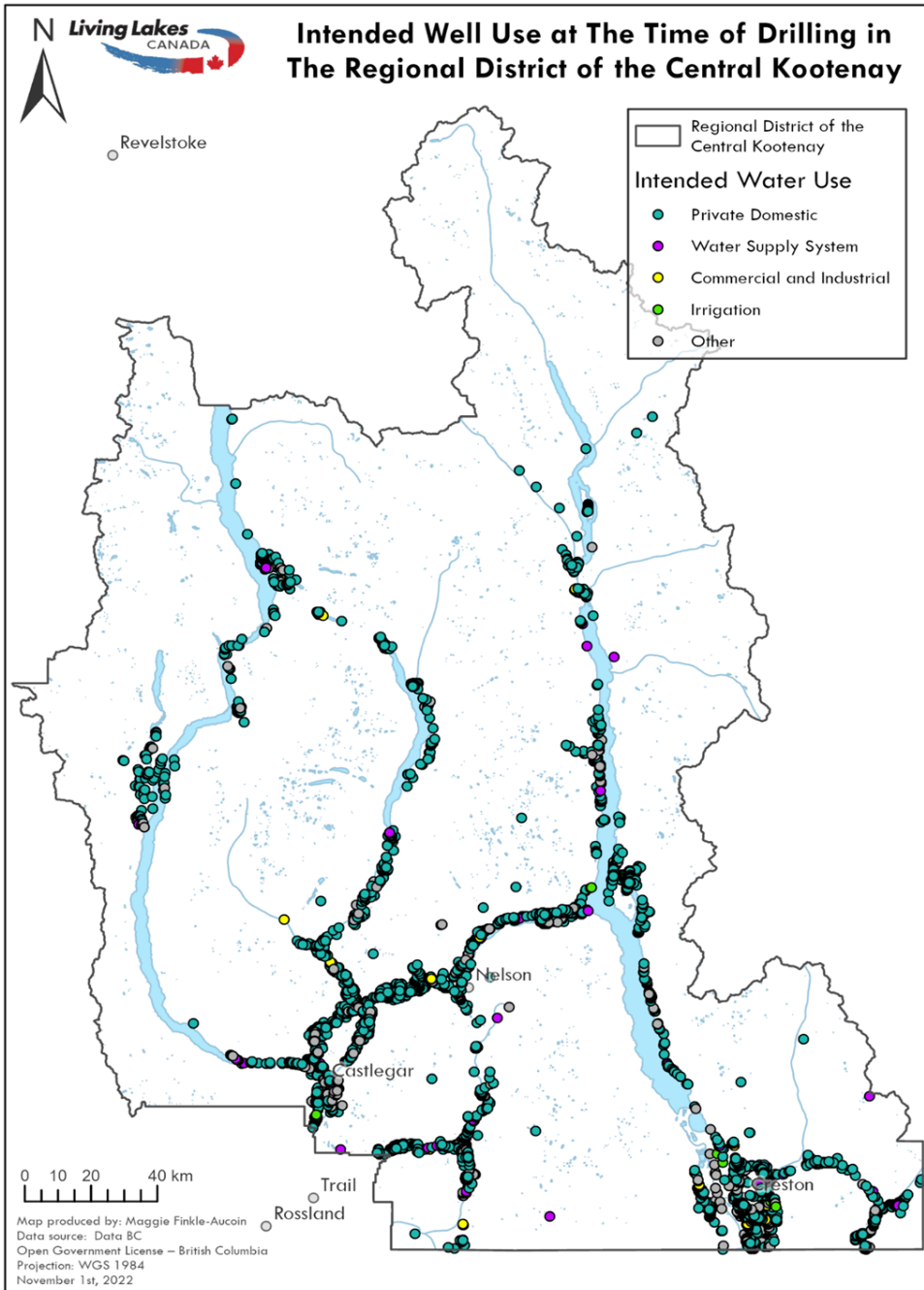
Maintains ecosystems

- Temperature
- Nutrient exchange

Maintains flows and water levels in surface waters

- Aesthetic value
- Surface water supplies





Well use in the RDCK

Private domestic: 3094

Irrigation: 27

Industrial/Commercial: 57

Water supply system: 91

Other: 594

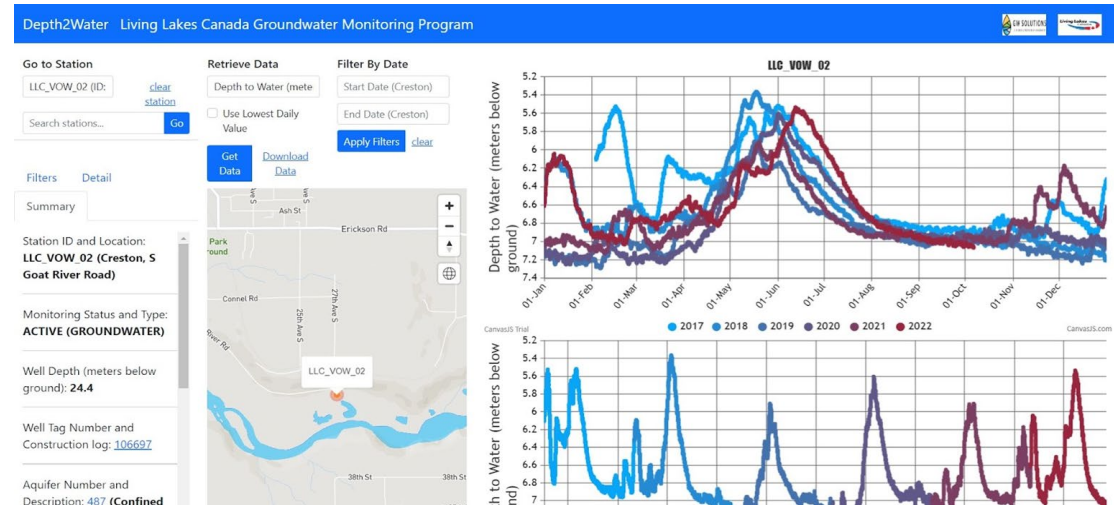
Correlated to an aquifers: 1259

Uncorrelated to an aquifer: 2605

Why is groundwater sustainability important to the RDCK?

1. Large percentage of the constituents rely on groundwater for domestic and agricultural water use
 - More individuals are turning to groundwater for a reliable source of water, the cumulative effect of water extraction from multiple wells can influence groundwater conditions
2. Groundwater is a critical resource to adapt to climate change
 - Maintains ecosystems, important for the health of streams and rivers (cool and oxygen-rich)
 - Water supply for people
3. Groundwater needs to be managed to be protected
 - Quality data are needed to inform management (policy, droughts and flood response, resource allocations)
4. BC Water Sustainability Act links groundwater pumping with environmental flows since 2016
 - Pumping can be linked to streamflow depletion but quantifying is expensive and time-consuming, Water level measurements are good indicators of aquifer conditions

How the program works



Identify suitable existing wells to monitor



Install & maintain groundwater level data loggers to collect hourly water level measurements

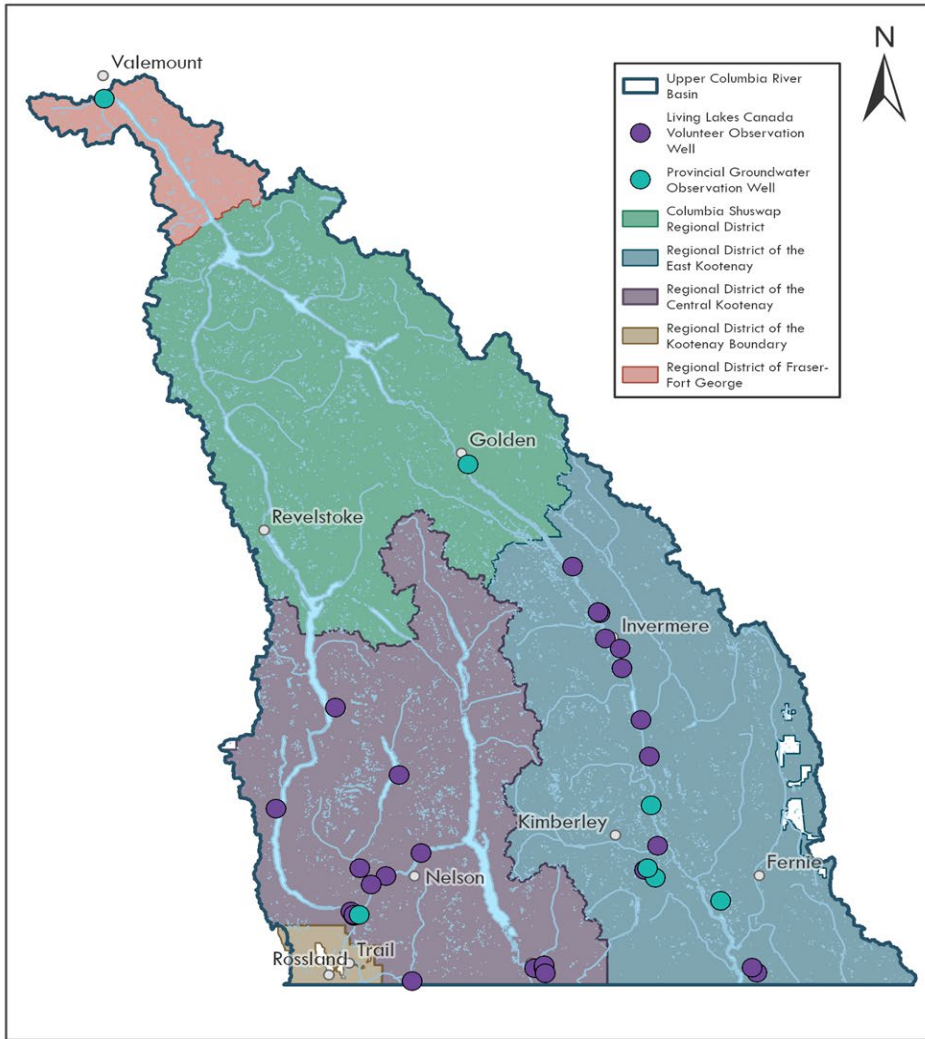


Review, store, and analyze the data in the database system Depth2Water



Share data publicly on Columbia Basin Water Hub: www.cbwaterhub.ca & BC Realtime Water Data Tool: <http://aqrt.nrs.gov.bc.ca/>

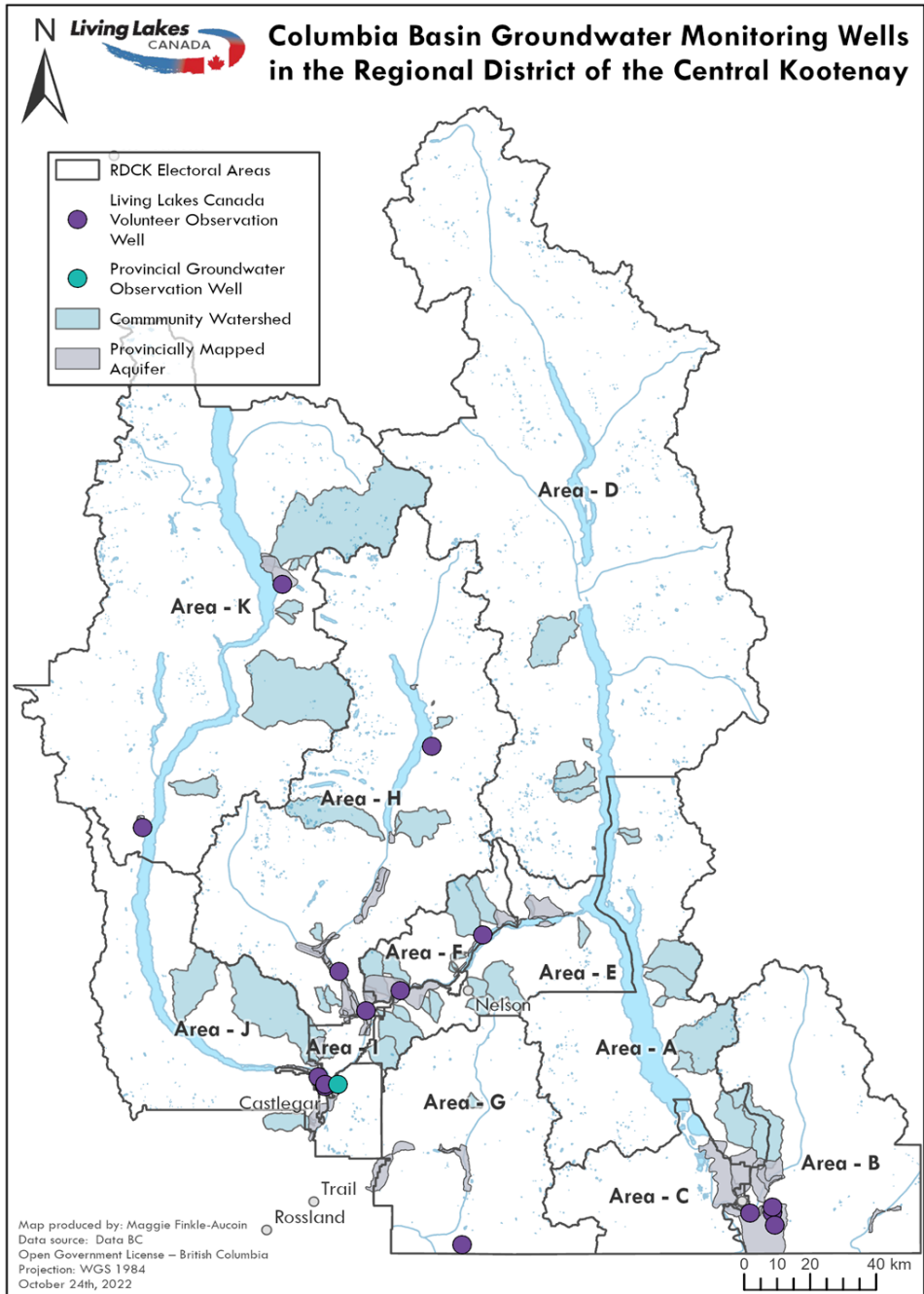
Groundwater Observation Wells in the Upper Columbia Basin



Map produced by: Maggie Finkle-Aucoin
 Data source: Data BC
 Open Government License – British Columbia
 Projection: WGS 1984
 October 24th, 2022

Overview of monitoring wells in the Columbia Basin

Living Lakes Monitoring wells: 32
 Provincial Observation wells: 7
 Mapped Aquifers: 183



Overview of monitoring wells in the RDCK

Living Lakes monitoring wells: 16
 Provincial Observation wells: 1
 Mapped aquifers: 57

- Area B: 4
- Area E: 1
- Area F: 1
- Area G: 1
- Area H: 3
- Area J: 3 - Provincial Observation Well
- Area K: 3



Proposed Project

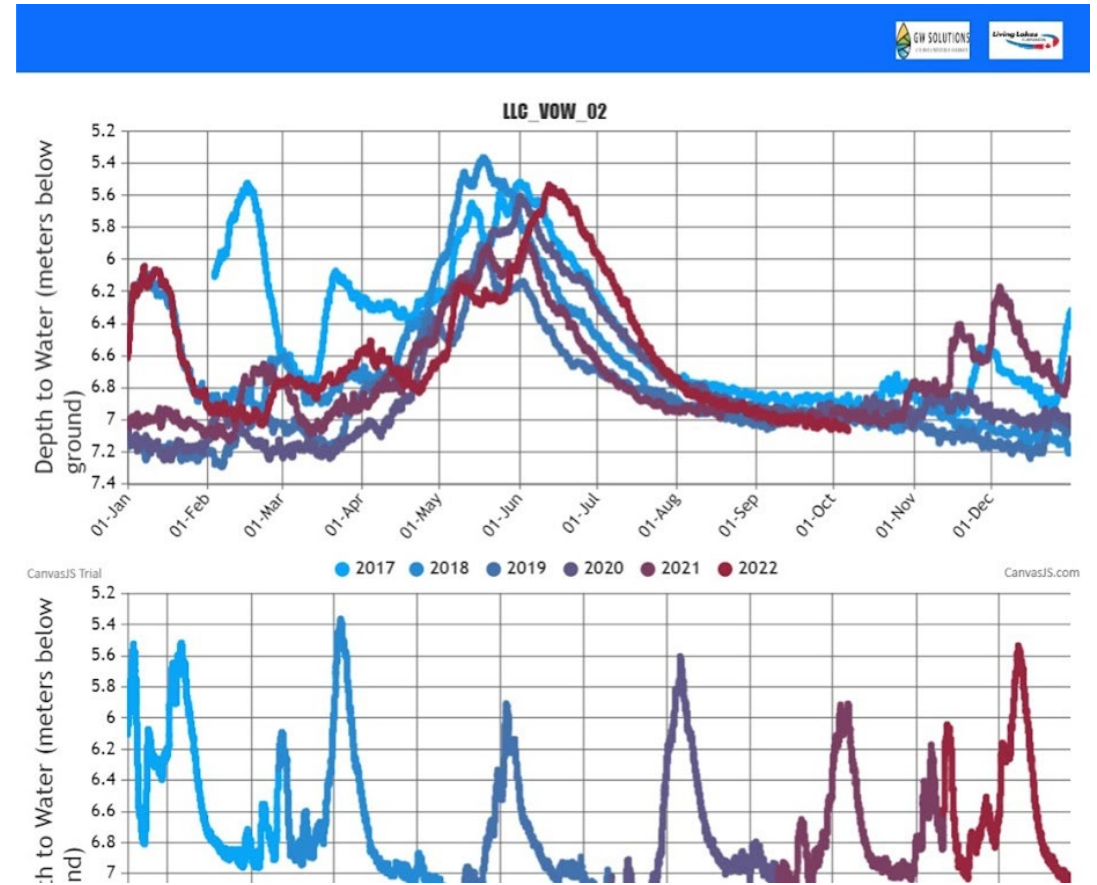
2023-2024 project of the Columbia Basin Groundwater Monitoring Program

Objectives

1. Maintain current data collection in the 16 Volunteer Observation Wells (VOWs) in the RDCK
 - Three visits a year
 - Engage well owners, increase literacy
2. Expand the data collection network and establish new VOWs
 - Identify priority areas
 - Identify and assess existing wells for monitoring
 - Establish partnerships with well owners
3. Continue to share data publicly to educate and socialize the community on GW topics
 - Process and share publicly data WGI story map, Columbia Basin Water Hub
 - Host outreach programs
 - Engage community members in active volunteering

Outcomes

- Increased understanding of groundwater conditions
- Increased socialization and education about groundwater
- Increased funding from outside sources to projects on RDCK



Summary

\$10,000 from the RDCK to reach 3 objectives:

1. Continued groundwater level monitoring in the RDCK at the 16 existing wells.
2. Expand and establish new monitoring wells in priority areas.
3. Increased education and socialization around topics related to groundwater and publicly available data.



Benefits to the RDCK:

- Assist the RDCK to reach their sustainability goals and commitments.
- Increase the capacity to address the concerns of the area residents.
- Build and foster relationships between community members, provincial and regional government, and other invested parties.

QUESTIONS?





Committee Report

Date of Report: November 10, 2022 (carried over)
Date & Type of Meeting: October 17, 2023, Community Sustainable Living Advisory Committee
Author: Paris Marshall Smith, Sustainability Planner
Subject: KOOTENAY LAKE WATERSHED MONITORING PROGRAM
File: 5200-20-CSLAC-Projects-FOKL
Electoral Area/Municipality All

SECTION 1: EXECUTIVE SUMMARY

This report provides Step 2 of Community Sustainable Living Advisory Committee project evaluation for an application from Friends of Kootenay Lake for the Kootenay Lake Watershed Monitoring Program (KLWMP). The full project evaluation can be found as **Attachment A – CSLAC_FOKL-ATTACH01**

This report is for information.

SECTION 2: BACKGROUND/ANALYSIS

This report provides Step 2 of Community Sustainable Living Advisory Committee project evaluation for an application from Friends of Kootenay Lake for the Kootenay Lake Watershed Monitoring Program (KLWMP). Friends of Kootenay Lake have requested \$10,000 to expand KLWMP all around Kootenay Lake.

OVERVIEW – from the application

The Kootenay Lake Watershed Monitoring Program (KLWMP) was established in 2020 by Friends of Kootenay Lake Stewardship Society (FoKLSS) in response to a local need to fill water data gaps and increase capacity for community-based water monitoring. The Program focuses on collecting water quality and quantity data on Kootenay Lake tributaries each year and providing free training to community groups in the Canadian Aquatic Biomonitoring Inventory Network (CABIN) protocol, a nationally standardized method of water quality monitoring that analyzes biological, physical and chemical parameters of freshwater streams.

Each summer for the past three summers, 15 members of the public (targeting environmental societies and First Nations communities) are invited to participate in a free-of-charge, two-day, in-field workshop delivered by certified CABIN trainers with Selkirk College to receive their CABIN Field Assistant certification. Certified volunteers accompany FoKLSS staff to monitor ten tributaries of Kootenay Lake, thereby providing practical experience to participants. The data gathered through monitoring is uploaded to the national CABIN database and the FoKLSS [website](#), and are provided by request to local governments, interested community members, and water license holders of monitored creeks. The first three years of the program focused on monitoring

streams in Kootenay Lake’s west arm. Beginning in 2023, sites will be selected from all around Kootenay Lake, with the goal of monitoring all of Kootenay Lake’s accessible tributaries throughout the life of the program.

Streams are chosen using various data including number of residences, number of water licenses, length of roads, area of mining tenures, and area of forestry cut blocks categorized by date within each watershed. Selecting those with the highest amounts of disturbance and the highest water licenses.

Collaboration with Living Lakes - LLC has not and does not currently plan to do CABIN monitoring around Kootenay Lake. LLC and FoKLSS are currently in the process of identifying synergies between all of our water monitoring initiatives and whether there are opportunities for partnership. LLC is the entity that enabled the KLWMP for FoKLSS as significant program advisors in the initial days and partnering to deliver the first CABIN training workshop in 2020. LLC and FoKLSS still partner on the project through LLC’s STREAM program. Samples are sent to the University of Guelph to test and strengthen the use of e-DNA metabarcoding as an alternative insect identification method.

SECTION 3: DETAILED ANALYSIS

3.1 Financial Considerations – Cost and Resource Allocations:

Included in Financial Plan:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Financial Plan Amendment:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Debt Bylaw Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Public/Gov’t Approvals Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

CSLAC has 2 types of activities it supports – projects and programs:

1. **Projects** are short one-off initiatives that have a distinct beginning and end, they are intended to be investigations of novel ideas focused on increasing rural resilience

FOR 2024 – The full \$25,000 CSLAC project fund is available for allocation in 2024.

2. **Programs** are multi-year initiatives – often projects that have moved past the incubation phase – undefined amount per year

Friends of Kootenay Lake Stewardship Society has requested \$10,000 for 2024.

Staff provide 3 options -

1. Fully fund the request
2. Partially fund the request - proponents would be grateful for reduced funding if that is all that is available
3. No funding – CSLAC will not further consider funding this request

3.2 Legislative Considerations (Applicable Policies and/or Bylaws):

None at this time

3.3 Environmental Considerations

The CABIN protocol is unique in that it includes a biological analysis, providing an accurate understanding of the biological health of the stream and whether biological communities have been disturbed or impacted. Benthic macroinvertebrates (bottom-dwelling invertebrates visible to the naked eye) are collected from the stream and

sent to a lab for identification. Stream health can be inferred from the richness and abundance of disturbance-tolerant, and disturbance-intolerant species.

3.4 Social Considerations:

This project will further unite communities around Kootenay Lake to advance Phase 3 of the Watershed Governance Initiative.

3.5 Economic Considerations:

Support for this project will provide economic opportunities across the regional district.

3.6 Communication Considerations:

A communication strategy will be developed as needed.

3.7 Staffing/Departmental Workplace Considerations:

Evaluation of this project proposal is within the Sustainability Planner's workplan.

3.8 Board Strategic Plan/Priorities Considerations:

Actions to support water monitoring align with the following Board priorities:

- 1. Seek opportunities for partnerships with local communities:**
 - Moving towards reconciliation with First Nations through respectful interactions and exploring partnerships
 - Achieve better coordination between the RDCK and local municipalities on common strategic priorities

- 2. Protect our water sources**
 - Develop comprehensive watershed management plan with all stakeholders and include them in OCP
 - Crown land logging and private land logging have limited impact on the quality and quantity of water available to RD residents for drinking and recreation

- 3. Establish a governance model for watershed management in the RDCK**
 - The RDCK determines what available tools it has to protect watersheds

SECTION 4: OPTIONS & PROS / CONS

This report is for information.

SECTION 5: RECOMMENDATIONS

This report is for information.

Respectfully submitted,

Paris Marshall Smith, Sustainability Planner

CONCURRENCE

Chief Administrative Officer – Stuart Horn

General Manager of Development and Community Sustainability Services – Sangita Sudan

Manager of Community Sustainability Services – Dan Seguin

ATTACHMENTS:

Attachment A – CSLAC_FOKL-ATTACH01

Attachment A – CSLAC_FOKL-ATTACH02



COMMUNITY SUSTAINABLE LIVING ADVISORY (Service 105) EVALUATION for PROJECT INITIATION

This evaluation is the second step in preparing your project for consideration by the Community Sustainable Living Advisory Committee (CSLAC).

1. Fill out the following questions to the best of your ability/knowledge. If you require assistance, contact the Sustainability Planner - pmarshallsmith@rdck.bc.ca
2. Once complete, the project will be reviewed by Staff and brought to the next CSLAC meeting. To be included on the agenda, ensure that forms are received by the 15th of the month before the meeting;
3. **Projects must be submitted by Monday November 14, 2022 to be considered for 2023 planning and budgeting;**
4. Proponents are invited to attend the CSLAC meeting as delegates for discussion and questions; and,
5. Once reviewed and questions satisfied, CSLAC will direct staff to develop a project evaluation in partnership with the project proponent that will eventually go to the Board for review.

PROPOSAL INFORMATION

APPLICANT INFORMATION

Project Proponent

Friends of Kootenay Lake Stewardship Society

Phone

(250) 777-2744

Email

manager@friendsofkootenaylake.ca

PROJECT INFORMATION

Project Title

Kootenay Lake Watershed Monitoring Program

Project Location

RDCK Electoral Areas E, F, D, A, C in tributaries of Kootenay Lake

Identify the geographical location(s) that will benefit from this project

RDCK Electoral Areas E, F, D, A, C

Project Classification (water, energy, climate change, food & agriculture or housing)

Water

Estimated Start Date

April 1, 2024

Estimated Completion Date

March 31, 2025, repeating annually

The CSLAC will evaluate proposals received and will recommend projects to the Board based on the following criteria. Respond to the following questions using as much space as needed. Please use page 5 & 6 for your answers. See the list at the end of this worksheet for more information on each category.

1. Relevance

What will the project do? How will this be achieved? Explain why this project is important to our community. Why is the RDCK best suited to deliver the project? Where will the project take place? How many people will directly benefit from the project and who are they?

The Kootenay Lake Watershed Monitoring Program (KLWMP) was established in 2020 by Friends of Kootenay Lake Stewardship Society (FoKLSS) in response to a local need to fill water data gaps and increase capacity for community-based water monitoring. The Program focuses on collecting water quality and quantity data on Kootenay Lake tributaries each year and providing free training to community groups in the Canadian Aquatic Biomonitoring Inventory Network (CABIN) protocol, a nationally standardized method of water quality monitoring that analyzes biological, physical and chemical parameters of freshwater streams. The CABIN protocol is unique in that it includes a biological analysis, providing an accurate understanding of the biological health of the stream and whether biological communities have been disturbed or impacted. Benthic macroinvertebrates (bottom-dwelling invertebrates visible to the naked eye) are collected from the stream and sent to a lab for identification. Stream health can be inferred from the richness and abundance of disturbance-tolerant, and disturbance-intolerant species.

Over the past four summers, 15 members of the public (targeting environmental societies and First Nations communities) have been invited to participate in a free-of-charge, two-day, in-field workshop delivered by certified CABIN trainers with Selkirk College to receive their CABIN Field Assistant certification. Training takes place in July at accessible streams within 20 km of Nelson. Trainees have the option to upgrade their certification to Field Technician by completing an online training module offered through the University of New Brunswick with fees reimbursed by FoKLSS (a value of \$750). Newly certified volunteers then accompany FoKLSS staff to monitor ten tributaries of Kootenay Lake, thereby providing practical experience to participants. The data gathered through monitoring is uploaded to the national CABIN database and the FoKLSS website, and are provided by request to local governments, interested community members, and water license holders of monitored creeks. The first three years of the program focussed on monitoring streams in Kootenay Lake's west arm. Beginning in 2023, sites will be selected from all around Kootenay Lake, with the goal of monitoring all of Kootenay Lake's accessible tributaries throughout the life of the program.

By providing opportunities for professional development and removing financial barriers to participants, we are helping to create a network of informed citizens with the capacity to contribute to community-based water monitoring. Anyone is welcome to participate in this program; no previous experience or knowledge in water quality monitoring is required. This program increases participants' employability and offers great networking opportunities. Past participants have expressed immense gratitude for the training opportunity and have been utilizing their skills in their professional lives. Some participant testimonials are included in the letters of support attached to this application. This program also produces valuable data that not only helps us better understand the health of local streams, but is

added to the growing national database used by scientists and decision makers to better understand the health of streams across Canada. The data are also useful for other scientific applications such as climate modelling. Monitoring in 2020, 2021, 2022 and 2023 revealed that landowners are increasingly concerned about the quality of their surface water resources and the ecological health of stream ecosystems. Many have expressed gratitude for and personal interest in the program. Quantifying the reach of this program's benefits is challenging, but the number is upwards of 20,000 people, including training participants, water license holders of monitored creeks, land use planners, and those who benefit from improved water management practices locally as a result of increased data availability.

The RDCK is obligated to understand and protect the integrity of freshwater resources, with water protection and advocacy identified as one of seven regional priorities and with a stated commitment to support water conservation and source water protection. However, the current lack of water quality and quantity data makes adequate stream management difficult. The data collected through this program provides a unique understanding of the ecological health of streams that often is overlooked, providing the regional district with valuable knowledge that could guide land-use, conservation, restoration, and other nature-based planning all around Kootenay Lake. The program covers five RDCK electoral areas and includes streams on which the RDCK owns water systems. It focuses on monitoring streams that have high impacts and high residential usage (water licenses), making the data relevant, interesting and/or important for many interest groups. The data is easily accessible from the FoKLSS website or can be directly shared and presented to the RDCK. Our results will likely reveal that some streams are less healthy or intact than others and point to potential causes of stream degradation that will help identify restoration potential. In addition, the data provides a baseline for local streams so that when future changes or disturbances occur (e.g., climate warming, wildfire, logging), the associated impacts on streams will be measurable.

2. Effectiveness

What RDCK structures, systems, issues or opportunities will be addressed? How were they identified?

Responding to the science:

In February 2017, Columbia Basin Trust (CBT) released the report "Water Monitoring and Climate Change in the Upper Columbia Basin, Summary of Current Status and Opportunities", outlining the current state of knowledge on water quality and quantity in the Columbia Basin. The research revealed a decline in local monitoring efforts for hydrometric, water quality and snow melt metrics and identified an overall lack of necessary water data for managing and protecting the Columbia Basin's water resources in the face of a changing climate. The report made clear the importance of filling data gaps to improve our knowledge of water quality and quantity in the Basin. FoKLSS responded by initiating the KLWMP in 2020. The program aims to build community-based monitoring networks to improve climate awareness and resilience while filling some data gaps identified in the CBT report.

Responding to the community:

Locals are increasingly concerned about stream health and the quality and quantity of freshwater resources. Many people in the community reach out to FoKLSS with questions or concerns regarding various impacts to stream health including forestry practices, climate change, forest fires, and private development. Some people fear that stream degradation is flying under the radar and that

initiatives to enforce laws, monitor water systems, and restore degraded habitats are not keeping pace with the negative impacts. The KLWMP aims to provide citizens with the knowledge and tools to monitor streams, as well as provide community members and decision makers with stream health data.

Responding to the RDCK's priorities for sustainability:

SustainABLE Central Kootenay envisions a pristine natural environment providing peace, balance, and wildness, and monitoring the natural environment is the only way to know whether we are realizing this vision. Regional priority #4, identified through the Integrated Community Sustainability Plan, is "water protection and advocacy". Stream health data is necessary to understand local water protection and advocacy needs. The program also aligns with the Watershed Governance Initiative, in that it supports community-led stream documentation, standardized monitoring, and relationship building.

3. Efficiency

Name 3 objectives and supporting activities of this project.

1. Train 15 people to receive CABIN Field Assistant certification in July 2023.
 - a. Hire certified CABIN trainers (Allison Lutz and Doris Hausleitner) to host the training workshop by April 30 2024.
 - b. Invite members of water stewardship groups, environmental societies, and First Nations to participate, then extend the invitation to the general public by June 15, 2024.
 - c. Host 2-day CABIN training workshop in mid-July and reimburse participants to complete online modules to upgrade certification by March 15, 2024.
 - d. Release participant satisfaction survey with regard to program delivery by August 1, 2024.
2. Monitor 10 Kootenay Lake tributaries by October 2024, and submit samples for analysis
 - a. Acquire all necessary equipment and supplies and arrange plans with laboratories by June 1, 2024.
 - b. Scope access sites and conduct landowner engagement to obtain stream access permission by August 1, 2024.
 - c. Reserve monitoring dates with volunteers by August 1, 2024.
 - d. Conduct monitoring, preserving samples and saving datasheets August to October 2024.
 - e. Ship samples to laboratories by October 18, 2024.
3. Data distributed publicly.
 - a. Upload data for the 10 streams to the national CABIN database by December 31, 2024
 - b. Create short watershed reports for each of the 10 target streams, highlighting the findings, by March 1, 2025.
 - c. Share raw data and any associated reports/data summaries with governments, community groups, First Nations, and interested community members by March 31, 2025.

How will the project be evaluated and how will you know if it has been successful?

Project success will depend on five factors: (1) whether we have met our project objectives; (2) whether work is completed within our scheduled timeline; (3) whether we have properly allocated funds and stayed within our budget; (4) the results of the participant satisfaction survey with regard to program delivery, and (5) the quality of collected data. Budget management is overseen bi-weekly, and schedule evaluation occurs weekly. Participant numbers and feedback will be compiled, summarized, and included in our final evaluation of the program. We will enumerate earned media articles that highlight the project, as well as the number of people reached through social media, measured by likes, shares and reach. Quality assurance and quality control protocols are implemented prior to, during, and after data collection. All participating staff receive CABIN training and follow the standardized protocol from equipment maintenance to data collection, cleaning, and management.

4. Impact

How will this project influence RDCK systems, structures and or processes in order to create change?

This program influences positive change at the regional level by providing stream health information and data and capacity building for community-based water monitoring. The program improves the ability of communities and land managers to understand and adapt to current and projected water-related challenges. Water monitoring data enables improved planning relating to land-use needs and conflicts, ecosystem health, and natural hazards and disasters.

5. Sustainability

How will this project contribute to advancing sustainability at the RDCK by addressing its social, economic, cultural and environmental priorities?

The program aligns with the RDCK's regional priority of Water Protection and Advocacy. The program also aligns with the RDCK's Environmental Education initiative. The program empowers people to get involved with water stewardship and provides them the skills and tools to do so. The program results in standardized data that can be used by anyone to better understand the health of local streams as well as how stream health may be changing over time. This in turn would aid in nature-based and land-use planning.

How does it build partnerships and long-term local capacity?

The KIWMP connects water stewards through the training program and provides monitoring equipment (kicknets, bottles, water chemistry meters, measuring tools etc.) for other stewardship groups to borrow, increasing their ability to monitor. This provides groups an opportunity to network and share resources. The training workshop also provides students and entry-level professionals an opportunity to network and become better integrated in their community and their chosen field. The program continues to strengthen partnerships with Selkirk College through the training program, and the University of Guelph and Living Lakes Canada through their macroinvertebrate e-DNA analysis program "STREAM" (Sequencing the Rivers for Environmental Assessment and Monitoring) which is testing the use of DNA metabarcoding to identify benthic macroinvertebrate species within biological samples. We collect extra benthic samples to be sent to the University of Guelph and they provide the analysis free of charge. This partnership helps to develop their methodology, which in the future could

help remove barriers to stewardship groups like FoKLSS for biological sample analysis as it is more cost effective and less time consuming.

6. Participation

In addition to RDCK staff, who will be involved in implementing the project?

- Allison Lutz, Hydrologist and certified CABIN instructor, Selkirk College. Role: leading CABIN training.
- Doris Hausleitner, Biologist and certified CABIN instructor, Selkirk College. Role: leading CABIN training.
- CARO Analytical Services. Role: processing water quality samples.
- Cordillera Consulting. Role: processing taxonomy samples.
- Michael Wright, University of Guelph. Role: Processing e-DNA samples.
- Trained, certified volunteers consisting of students, First Nations, or members of water stewardship groups, environmental non-profits, or the general community. Role: assisting with CABIN monitoring.
- FoKLSS Program Manager, Stewardship Coordinator and Outreach Coordinator. Role: coordinating monitoring workshops. Acquiring necessary supplies. Coordinating monitoring days. Monitoring. Submitting samples. Uploading data. Reporting. Distributing data. Community engagement and outreach.

7. Responsibility

WORK PLAN

Provide brief descriptions of your proposed project activities along with timelines for each.

Activity	Overseen by	Start Date	End Date
Book training dates with CABIN trainers	Program Manager (PM)	April 3, 2024	April 7, 2024
Purchase sample jars, preservation fluids, calibration fluids, equipment replacements, and send equipment away for necessary repairs.	PM	May 1, 2024	May 5, 2024
Invite local streamkeeper groups, non-profits, First Nations and interested community members to sign up for CABIN training workshop	Outreach Coordinator (OC)	June 5, 2024	July 12, 2024
Promote workshop online	OC	June 5, 2024	July 12, 2024
Identify potential streams for monitoring using Geographic Information Systems	PM, FoKLSS Science Committee	July 3, 2024	July 7, 2024
Scope streams for viable access points and monitoring sites and request landowner permission to access streams.	PM and Stewardship Coordinator (SC)	July 10, 2024	August 4, 2024
De-winterize monitoring equipment	SC	July 12, 2024	July 14, 2024

Host CABIN training workshop	PM, hired CABIN trainers	July 13, 2024	July 14, 2024
Send out training feedback survey	OC	July 17, 2024	July 17, 2024
Publish project updates online	OC	July 17, 2024	October 13, 2024
Contact landowners and volunteers and schedule monitoring days	PM	July 21, 2024	September 29, 2024
Monitor (using CABIN protocol) ten streams, labelling water samples upon office return	PM, SC, certified volunteers	August 7, 2024	October 15, 2024
Compile and summarize training feedback results	OC	August 14, 2024	August 18, 2024
Label, package, and ship samples to University of Guelph, CARO Analytical Services, and Cordillera Consulting.	PM	October 2, 2024	October 25, 2024
Submit data to National CABIN database	SC	November 6, 2024	November 17, 2024
Receive sample data from laboratories	PM	November 6, 2024	March 1, 2025
Summarize monitoring results and publish on FoKLSS website. Forward to landowners and other interest groups.	SC	March 4, 2025	March 29, 2025
Complete final project and financial reporting	PM	March 18, 2025	March 29, 2025
Educate the public about the project through outreach at schools, markets, festivals, and special events, as well through content creation (videos, photos, podcast episodes, blog posts, etc.)	OC	April 1, 2024	March 31, 2025

8. Funding

PROJECT BUDGET

List specific budget items under each heading to identify your expenses that you require cash for. Round up values to the nearest dollar.

Budget item	Total amount required
Executive Director wages (\$30/hr * 210 hrs) + MERCs @ 12%	\$7,056.00
Eco Programs Coordinator wages (\$24/hr * 300 hrs) + MERCs @ 12%	\$8,064.00
Outreach Coordinator wages (\$24/hr * 150 hrs) + MERCs @ 12%	\$4,032.00
Summer Student wages (\$19/hr * 60 hrs) + MERCs @ 12%	\$1,276.80
CABIN Trainers (\$1,450 * 2 instructors)	\$3,045.00

Water quality sample analysis for 10 samples (\$28 TSS * 10 + \$17 turbidity * 10) + handling fee (\$3.80 * 10) + 5% GST	\$512.40
Taxonomic sample analysis (\$330 * 10) + 5% GST	\$3,500.00
Shipping samples - 15 lb CARO lab Purolator ground (\$50) + 23 lb Cordillera Consulting Purolator ground (\$90) + 53 lb Guelph University Purolator express (\$500) (inclusive of GST)	\$640.00
Reimbursement to upgrade Field Assistant to Field Technician (\$125 * 15 people) + 5% GST	\$1,968.75
Parts replacement and equipment maintenance (metal mesh for kicknet, kicknet repairs, turbidimeter repairs, DO meter maintenance and/or repairs)	\$800.00
Calibration fluids (pH, \$25 ea * 3) + (conductivity, \$24) + 5% GST	\$103.95
Preservation fluids (ethanol, \$115/4L bottle * 2) + (antifreeze, \$18/4L bottle * 4) + 5% GST	\$317.10
Sample jars (\$6.50/jar * 44) and parafilm (\$60.50)	\$346.50
Printing of training and educational materials (\$0.25/sheet * 600 sheets) + 5% GST	\$150.00
Misc. supplies (pens, markers, forceps, gloves, masks, bags, first aid kit supply replacements)	\$234.75
Travel expenses (average 75 km per monitoring location * 12 locations * 2 visits/location * \$0.61/km)	\$1800.00
Administration (15%)	\$6,000.00
Total amount required	\$40000.00
Total eligible funding	\$36,000.00

** cannot find information on eligible vs. ineligible funding so going off the assumption that administration costs are ineligible based on CIP/AAP guidelines.

REVENUE SOURCES

Who have you identified as contributing to the project? Please identify in the description if it is internal (staff time), external (cash) or in-kind.

Source name	Description	Applied for (Y/N)	Confirmed (Y/N)	Amount
CSLAC	External	Y	N	\$10,000.00
BC Community Gaming Grant	External	N	N	\$20,000.00
Nelson Hydro	External	N	N	\$2,000.00
Columbia Power	External	N	N	\$2,500.00
Real Estate Foundation BC	External	N	N	\$15,000.00

Total:	\$49,500.00
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IN-KIND SOURCES & CONTRIBUTIONS

Describe what contributions are being made to the project other than cash. (200 words)

The University of Guelph is providing e-DNA analysis of macroinvertebrates free of charge through STREAM (Sequencing the Rivers for Environmental Assessment and Monitoring), a partnership program with Living Lakes Canada. This is an approximate \$2,000-\$3,000 value provided in-kind.

Eighty hours of volunteer monitoring valued at \$20/hr totalling \$1,600 labour-hours offered in-kind.

SUPPORTING DOCUMENTS

Are you providing additional material that provides further evidence to support your project idea (such as letters of support, outcomes of community engagement, report executive summaries, quotes, approvals maps, etc)?

List what you are submitting:

1. Letters of support
2. Video outlining the project

ADDITIONAL INFORMATION Is there anything else you would like to add that has not already been mentioned?

QUESTIONS? Paris Marshall Smith, Sustainability Planner 236-532-2016

pmarshallsmith@rdck.bc.ca



Selkirk College

Allison Lutz
300 Frank Beinder Way
Castlegar, BC
V1N 4L3

August 30, 2022

Re: Support for the Kootenay Lake Watershed Monitoring Program

Dear Review Committee,

This letter is in support of Friends of Kootenay Lake Stewardship Society's (FoKLSS) funding application for their Kootenay Lake Watershed Monitoring Program – a community-based water monitoring initiative that increases capacity of local stewards to monitor their fresh water sources through the provision of free training and real-world monitoring experience.

As a certified instructor in the nationally standardized CABIN (Canadian Aquatic Biomonitoring Inventory Network) water monitoring protocol, I have assisted FoKLSS with delivering CABIN training each year the program has been run (2020, 2021, 2022). FoKLSS has demonstrated utmost professionalism, time management and organization in the delivery of the training which resulted in the successful certification of 31 citizen scientists.

Community-based watershed monitoring is emerging across Canada as an effective and impactful means of better understanding freshwater resources, while engaging residents to get involved in water stewardship. FoKLSS is the ideal local organization to catalyze community-based water monitoring at the local level, having gained the trust and support of community groups through a decade of successful program delivery.

I will support the Kootenay Lake Watershed Monitoring Program through the provision of CABIN training in 2023 and I strongly endorse this funding opportunity as an important step toward local freshwater sustainability.

Kind regards,

ALLISON LUTZ
Geography/Hydrology Instructor
School of Environment and Geomatics
Selkirk College, West Kootenay & Boundary Region
t. 250.365.1276 or c. 250.551 3094 | e. alutz@selkirk.ca

August 29, 2022



Re: Support for the Kootenay Lake Watershed Monitoring Program

Dear Review Committee,

This letter is in support of Friends of Kootenay Lake Stewardship Society's (FoKLSS) funding application for their Kootenay Lake Watershed Monitoring Program – a community-based water monitoring initiative that increases capacity of local stewards to monitor their fresh water sources through the provision of free training and real-world monitoring experience.

As a certified instructor in the nationally standardized CABIN (Canadian Aquatic Biomonitoring Inventory Network) water monitoring protocol, I have assisted FoKLSS with delivering CABIN training for the past two of the three years the program has been run (2020- 2022). FoKLSS has demonstrated utmost professionalism, time management and organization in the delivery of the training which has resulted in the successful certification of 31 citizen scientists.

Community-based watershed monitoring is emerging across Canada as an effective means to understand freshwater health, and engages residents to be involved in water stewardship. FoKLSS is the ideal local organization to facilitate community-based water monitoring at the local level, having gained the trust and support of community groups through a decade of successful program delivery.

I look forward to supporting the Kootenay Lake Watershed Monitoring Program through the provision of CABIN training in 2023 and strongly endorse this funding opportunity as an important step toward local freshwater sustainability.

Sincerely,

Doris Hausleitner M.Sc, R.P.Bio

Instructor, Selkirk College Environment and Geomatics

CASTLEGAR CAMPUS
301 Frank Beinder Way
Castlegar BC V1L 4L3

TENTH STREET CAMPUS
820 Tenth Street
Nelson BC V1L 3C7

VICTORIA STREET CAMPUS
606 Victoria Street
Nelson BC V1L 4K9

SILVER KING CAMPUS
2001 Silver King Road
Nelson BC V1L 1C8

TRAIL CAMPUS
900 Helena Street
Trail BC V1R 4S6
CANADA



Re: Support for the Kootenay Lake Watershed Monitoring Program

Dear Review Committee,

This letter is in support of the Friends of Kootenay Lake Stewardship Society's (FoKLSS) funding application for their *Kootenay Lake Watershed Monitoring Program*. This is a community-based water monitoring initiative that increases the capacity of local water stewards to monitor their fresh water sources through the free training with valuable hands-on monitoring experience.

In 2022 I completed the CABIN (Canadian Aquatic Biomonitoring Inventory Network) training session as a participant in this FoKLSS program. Because the training opportunity provided by Friends of Kootenay Lake was free it enabled a member of our society to obtain a CABIN Field Assistant Certification. In the three days of training I gained important water quality monitoring skills that now gives our society, as water stewards, improved capabilities to monitor the water quality of our Duhamel Watershed. I would very much encourage and recommend this CABIN training program to anyone interested in actively stewarding watersheds in the Columbia Basin region. With the water monitoring skill set gained from the CABIN training program, I am pleased that we have improved capabilities to steward our watershed and our region.

I strongly endorse this funding opportunity so that others may benefit from the program and to expand the water stewardship capabilities throughout the Columbia Basin region.

Most Sincerely,

Adam Sutherland

On behalf of the Duhamel Watershed Society



August 29th, 2022

Re: Friends of Kootenay Lake 2022: Kootenay Lake Watershed Monitoring Program Letter of Support

Dear Review Committee,

Living Lakes Canada fully supports the Friends of Kootenay Lake Stewardship Society's (FoKLSS's) application to continue their Kootenay Lake Watershed Monitoring Program through 2023. This is a community-based water monitoring initiative that increases the capacity of local stewards to monitor freshwater streams and rivers through the provision of free training and real-world monitoring experience.

Living Lakes Canada facilitates collaboration in education, monitoring, restoration, and policy development initiatives for the long-term protection of Canada's lakes, rivers, wetlands and watersheds. We believe that freshwater monitoring using cutting- edge technology is a vital and timely means of providing organizations such as the Friends of Kootenay Lake with the resources they need to carry out biomonitoring programs that help to improve community understanding of watershed health.

Living Lakes Canada is partnering with the Friends of Kootenay Lake to apply new technology - eDNA metabarcoding - through the Sequencing The Rivers for Environmental Assessment and Monitoring (STREAM) project. Benthic macroinvertebrate samples are collected using the Canadian Aquatic Biomonitoring Inventory Network (CABIN) protocol through FoKLSS's Kootenay Lake Watershed Monitoring Program. Through the STREAM project, hosted by University of Guelph, with a multitude of cross sectional partnerships, analysis and eDNA identification and sequencing generates biodiversity data for freshwater benthic macroinvertebrates.

Community-based watershed monitoring is emerging across Canada as an effective and impactful means of better understanding freshwater resources, while engaging residents to get involved in water stewardship. FoKLSS is the ideal local organization to catalyze community-based water monitoring at the local level, having gained the trust and support of community groups through a decade of successful program delivery.

Living Lakes Canada supports the Friends of Kootenay Lake with their efforts to increase watershed monitoring capacity at the local level, while supporting the validation of the emerging DNA metabarcoding technology.

Sincerely,

#220A, 330 Baker Street • Nelson, BC • V1L 4H5



A handwritten signature in black ink, appearing to read "Kat Hartwig", is positioned above the printed name.

Kat Hartwig
Executive Director
Living Lakes Canada
kat@livinglakescanada.ca

August 29, 2022

Re: Support for the Kootenay Lake Watershed Monitoring Program

Dear Review Committee,

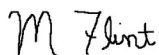
This letter is in support of Friends of Kootenay Lake Stewardship Society's (FoKLSS) funding application for their Kootenay Lake Watershed Monitoring Program – a community-based water monitoring initiative that increases capacity of local stewards to monitor their fresh water sources through the provision of free training and real-world monitoring experience.

As a participant in Friends of Kootenay Lake's 2021 CABIN (Canadian Aquatic Biomonitoring Inventory Network) training session, I gained valuable water quality monitoring skills that I have since applied to developing a CABIN monitoring protocol in the Creston Valley. Without this free training opportunity provided by Friends of Kootenay Lake, I would have had to wait another year to complete the CABIN Field Assistant Certification. I will whole-heartedly recommend the course to anyone interested in actively stewarding watersheds in the Columbia Basin region.

The Creston Valley has many ongoing water concerns around agriculture, development and forestry. CABIN training provides a rigorous and national standards to monitor health of our watersheds. This year we are doing our first year of CABIN monitoring on the Goat River. Without the course last year we would not be sampling this year. Three participants from the Creston Valley were trained last year.

I felt empowered and inspired by this training program, and I am excited to continue applying my new water quality monitoring skillset in my community. I strongly endorse this funding opportunity, so that others may benefit from the program as I have.

Sincerely,



Melissa Flint

Project Director-Coordinator

Wildsight Creston Valley Branch

Heather McIntyre
2131 Glade Road
Castlegar, B.C.
V1N 4R3

August 28, 2022

Re: Support for the Kootenay Lake Watershed Monitoring Program

Dear Review Committee,

This letter is in support of Friends of Kootenay Lake Stewardship Society's (FoKLSS) funding application for their Kootenay Lake Watershed Monitoring Program – a community-based water monitoring initiative that increases capacity of local stewards to monitor their fresh water sources through the provision of free training and real-world monitoring experience.

As a participant in Friends of Kootenay Lake's 2022 CABIN (Canadian Aquatic Biomonitoring Inventory Network) training session, I gained valuable water quality monitoring skills that I will apply to monitoring of Glade Creek: our community source for drinking water. Without this free training opportunity provided by Friends of Kootenay Lake, I would not have completed my CABIN Field Assistant Certification. I will wholeheartedly recommend the course to anyone interested in actively stewarding watersheds in the Columbia Basin region.

Repeat monitoring of Glade Creek will alert the community to any changes associated either with climate change or industrial development in our watershed.

I felt empowered and inspired by this training program, and I am excited to continue applying my new water quality monitoring skillset in my community. I strongly endorse this funding opportunity, so that others may benefit from the program as I have.

Sincerely,

Heather McIntyre

August 27, 2022

Re: Support for the Kootenay Lake Watershed Monitoring Program

Dear Review Committee,

I am providing this letter of immense support to Friends of Kootenay Lake Stewardship Society's (FoKLSS) funding application for their Kootenay Lake Watershed Monitoring Program. This community-based water monitoring initiative has already increased the capacity of local stewards monitoring fresh water sources in their communities through accessibility to free training and incredible opportunities for real-world water monitoring experience. It would be fantastic to see this invaluable opportunity grow and flourish with support from this funding.

As a Friends of Kootenay Lake's Summer 2022 CABIN (Canadian Aquatic Biomonitoring Inventory Network) training participant, I had the great opportunity to spend two immersive days gaining a full understanding of the CABIN water monitoring protocol and techniques, which I intend to apply to future career aspirations within freshwater ecology and conservation. This is a course and certification I have been wanting to complete for quite some time and without this free training opportunity provided by Friends of Kootenay Lake, I would not have completed my CABIN Field Assistant Certification due to financial barriers. I will whole-heartedly recommend the course to anyone interested in actively stewarding watersheds in the Columbia Basin region and beyond, on everything from a level of personal interest to that of professional monitoring.

Water is life, and water stewardship is incredibly important to gaining a greater understanding of the health of our natural spaces. As we continue to face increasing disturbances to natural systems from human impact, I believe it is the responsibility of each and every one of us to take the initiative to better understand how these impacts really have cause and effect to all species and all environments. FoKLSS is taking the lead on increasing the accessibility for members of the community to step up and take this responsibility seriously.

I truly cannot express my full gratitude for the opportunity to complete this training. I feel confident with my new skillset and empowered to apply these skills to an array of future opportunities in stewardship both in my local community and throughout my national and international travels, volunteering and employment. I strongly endorse this funding opportunity, so that others may also have the opportunity to gain these skills and become empowered water stewards.

Sincerely,



Melanie Jacques

August 29, 2022

Re: Support for the Kootenay Lake Watershed Monitoring Program

Dear Review Committee,

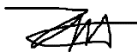
This letter is in support of Friends of Kootenay Lake Stewardship Society's (FoKLSS) funding application for their Kootenay Lake Watershed Monitoring Program – a community-based water monitoring initiative that increases capacity of local stewards to monitor their fresh water sources through the provision of free training and real-world monitoring experience.

As a participant in Friends of Kootenay Lake's 2022 CABIN (Canadian Aquatic Biomonitoring Inventory Network) training session, I gained valuable water quality monitoring knowledge that I have since applied to my work as communications assistant with Living Lakes Canada, an ENGO focused on freshwater protection and stewardship across Canada. Without this free training opportunity provided by Friends of Kootenay Lake, I would not have completed my CABIN Field Assistant Certification. I will wholeheartedly recommend the course to anyone interested in actively stewarding watersheds in the Columbia Basin region.

I was thrilled to find out about this excellent learning opportunity with Friends of Kootenay Lake Stewardship Society. I am currently pursuing a Bachelor of Science in Biology with a minor in Environmental Sciences so I expect this certification will be relevant to and support my undergraduate learning. I also am hoping to join a water stewardship group in my local area, and I would love to be able to directly apply my new knowledge from the CABIN Certification course to stewarding the water bodies in my area.

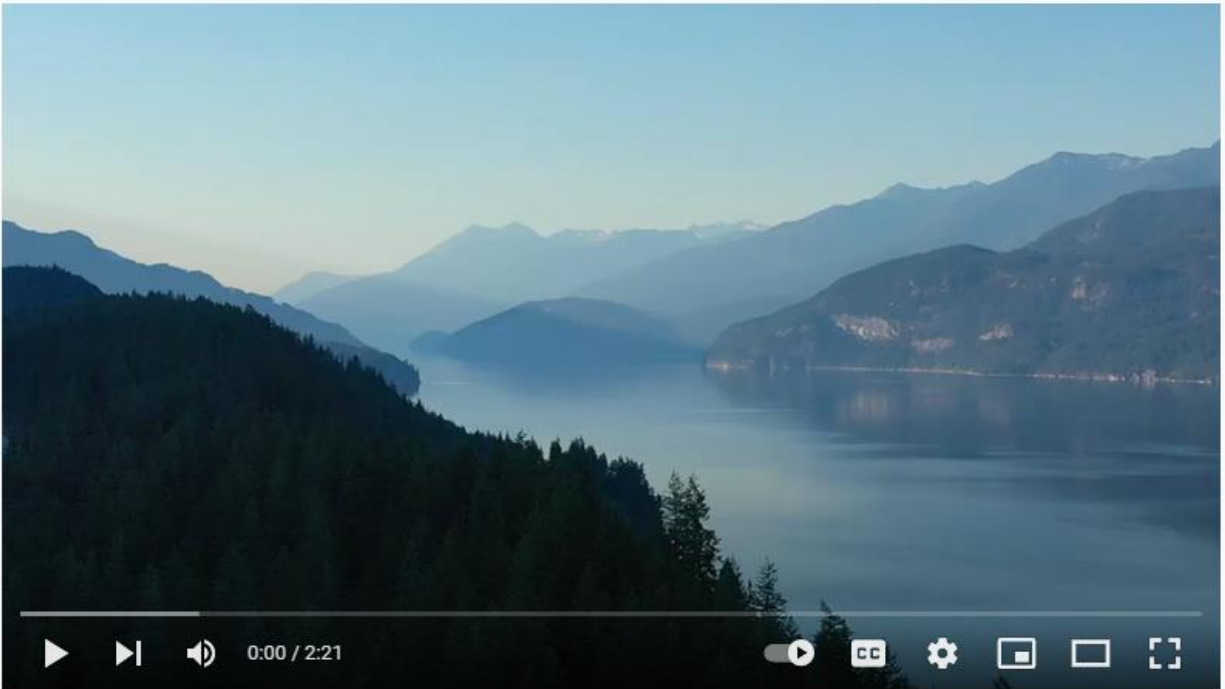
I felt empowered and inspired by this training program, and I am excited to continue applying my new water quality monitoring skillset in my community. I strongly endorse this funding opportunity, so that others may benefit from the program as I have.

Sincerely,



Tracey Mitchell

Watch our [brand new video](#) highlighting the program.



Kootenay Lake Watershed Monitoring Program

Click image to be directed to video.



Friends of
Kootenay Lake
Stewardship Society

Kootenay Lake Watershed Monitoring Program

CSLAC December Meeting

Who are the Friends of Kootenay Lake?





Overview

- FoKLSS monitors 10 tributaries of Kootenay Lake annually using CABIN method & provides free training to community groups
- Local and national need to fill water data gaps in order to manage water resources in face of changing climate
- Immense benefit to training participants
- Immense benefit to water users and decision makers locally

Background & Need

- Climate change & land-use activities alter stream hydrology locally – projected acceleration of water quality concerns
- 2017 report identified lack of data required to understand changes



Water Monitoring and Climate Change in the Upper Columbia Basin

Summary of Current Status and Opportunities

JANUARY 2017

Columbia
Basin **trust**
ourtrust.org





About CABIN

- Canadian Aquatic Biomonitoring Inventory Network
- Nationally standardized protocol for assessing water quality and quantity
- Snapshot understanding of stream health based on reference system
- Focus on benthic macroinvertebrates

CABIN Training

- Provision of free CABIN training, \$1,000 value, CABIN Field Assistant and Field Technician certification
- 2-day workshop held in-field near Nelson. Upgrade certification through online modules (University of New Brunswick)
- Building capacity for community-based water monitoring
- Training prioritized for First Nations and water stewardship groups





Stream monitoring

Assessments and sampling of 10 tributaries of Kootenay Lake per year

- Physical, chemical, biological
 - Land-use & site info
 - Width, depth, slope
 - Velocity/ discharge
 - pH, conductivity, turbidity, temperature, dissolved oxygen, TSS
 - Vegetation communities
 - Substrate
 - Benthic macroinvertebrate communities
- Late summer/ fall sampling

Local Benefit

- Program fills identified data gaps and builds community capacity
- Increased ability to manage local water resources sustainably
- Personal benefit to training participants
- Baseline dataset in case of future disturbance
- Lending of equipment to stewardship groups





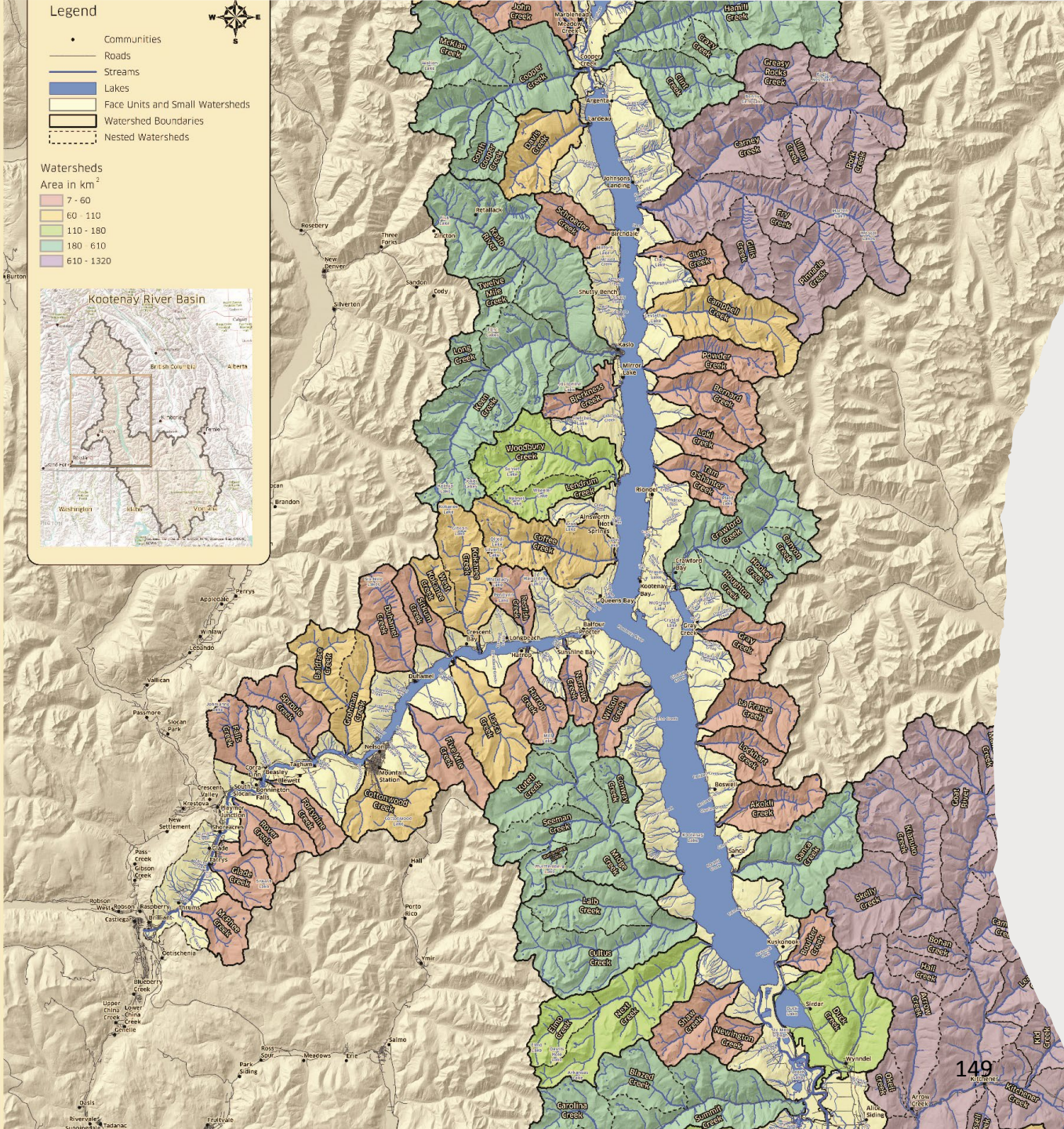
National Benefit

- Data contributes to national dataset
 - Better understanding of state of national water health
 - Used by scientists and decision makers (modelling, planning, research)
- Refines reference models

Alignment with RDCK's Priorities

- Sustainability
- Resilience
- Water protection and advocacy identified as one of seven regional priorities
- The RDCK board is committed to... supporting water conservation and source water protection
- Monitoring in 5 electoral areas, including streams on which RDCK owns water systems
- Alignment with Watershed Governance Initiative





Long-term Goals

- Monitor 10+ streams per year until we've monitored all Kootenay Lake Tributaries
- Return & re-monitor streams to track stream health changes
- Provide data to community & decision makers
- Continue providing free training & citizen science monitoring opportunities
- Data potentially used to identify streams in need of intervention

Partners & Supporters

- CABIN Instructors (from Selkirk College)
 - Doris Hausleitner
 - Alison Lutz
- Trained/partnered:
 - Duhamel Watershed Society
 - Wildsight Creston
 - Glade Watershed Protection
 - Living Lakes Canada
 - Harrop Procter Watershed Protection Society
- 2022 Funders



Columbia Basin **trust**





Annual Budget

- ~30K annual budget (rough & rounded actuals following)
 - 6K Professional fees (CABIN training, sample analyses)
 - 1K Shipping samples
 - 1.5K Small tools & equipment and equipment part maintenance/replacements
 - 7K Fees to reimburse Field Technician online modules
 - Monitoring supplies
 - 0.5K Mileage
 - 1K printing, fees, volunteer incentives
 - 13K Staff payroll

Participant Testimonials

"In 2022 I completed the CABIN (Canadian Aquatic Biomonitoring Inventory Network) training session as a participant in this FoKLSS program. Because the training opportunity provided by Friends of Kootenay Lake was free it enabled a member of our society to obtain a CABIN Field Assistant Certification. In the three days of training I gained important water quality monitoring skills that now gives our society, as water stewards, improved capabilities to monitor the water quality of our Duhamel Watershed. I would very much encourage and recommend this CABIN training program to anyone interested in actively stewarding watersheds in the Columbia Basin region. With the water monitoring skill set gained from the CABIN training program, I am pleased that we have improved capabilities to steward our watershed and our region."

- Adam Sutherland

On behalf of the Duhamel Watershed Society





Regional District of Central Kootenay

Unaudited Service Statement

S105 Community Sustainability

Period: October 2023

REVENUE					Current Month	Year To Date Actuals	Total Year Budget	Budget Remaining	Budget Utilization
Account		Project	Workorder						
41010	Requisitions				0	210,250	210,250	0	100%
45000	Transfer from Reserves				0	0	32,000	32,000	0%
45500	Transfer from Other Service				0	8,000	0	(8,000)	0%
49100	Prior Year Surplus				0	23,260	21,890	(1,370)	106%
Revenue					0	241,510	264,140	22,630	91%

OPERATING EXPENSES					Current Month	Year To Date Actuals	Total Year Budget	Budget Remaining	Budget Utilization
Account		Project	Workorder						
51010	Salaries				3,788	83,454	147,000	63,546	57%
51020	Overtime				0	85	0	(85)	0%
51030	Benefits				610	23,134	38,500	15,366	60%
51050	Employee Health & Safety				0	0	100	100	0%
51500	Directors - Allowance & Stipend				0	9,488	16,900	7,412	56%
51560	Directors - Travel				0	114	1,000	886	11%
51565	Directors - Mileage				0	952	0	(952)	0%
52010	Travel				0	47	0	(47)	0%
52020	Education & Training				0	0	3,200	3,200	0%
52030	Memberships, Dues & Subscriptions				0	1,179	650	(529)	181%
53020	Admin, Office Supplies & Postage				0	729	1,300	571	56%
53030	Communication				0	935	1,000	65	94%
53050	Insurance				0	802	520	(281)	154%
54030	Contracted Services				0	14,692	0	(14,692)	0%
55010	Repairs & Maintenance				0	397	810	413	49%
55040	Utilities				0	352	440	88	80%
55050	Vehicles				0	0	500	500	0%
55060	Rentals				0	316	1,050	734	30%
57010	Grants				0	0	35,000	35,000	0%
Operating Expenses					4,399	136,676	247,970	111,294	55%

CAPITAL EXPENSES					Current Month	Year To Date Actuals	Total Year Budget	Budget Remaining	Budget Utilization
Account		Project	Workorder						

NON-OPERATING EXPENSES					Current Month	Year To Date Actuals	Total Year Budget	Budget Remaining	Budget Utilization
Account		Project	Workorder						
59500	Transfer to Other Service				0	68	0	(68)	0%
59510	Transfer to Other Service - General Admin. Fee				0	10,654	10,654	0	100%
59520	Transfer to Other Service - IT Fee				0	5,516	5,516	0	100%
Non-Operating Expenses					0	16,238	16,170	(68)	100%

Total Service					(4,399)	88,595	(0)		
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