



# COUNCIL MEETING

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Shuswap Watershed Council  
December 13<sup>th</sup> 2023 • 9:30 – 11:40 AM



# ITEM DEFERRED FROM LAST MEETING

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See agenda package p. 46

The Water Quality Grant Program budget is currently approved for \$55,000. Staff are recommending an increase to the budget of 10-20% for the following reasons:

- Inflation – proponents' project costs have increased
- Oversubscription – last year the grant program had more demand than it could meet
- Scope – more funding can assist projects of greater scope and impact
- Legacy and commitment – the grant program aligns with the SWC's commitment to watershed health and stewardship. Investment today reduces future restoration costs.



# PROGRAM MANAGERS' REPORT

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# ACTION ITEMS FROM LAST MEETING

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- Staff follow up with Gardom Lake Stewardship Society re: water quality data at the wetland restoration site ✓
- Staff discuss Water Quality Grant Program guidelines and eligibility criteria with the Water Protection Advisory Committee ✓
- Staff include the Water Quality Grant Program Guide in the agenda package for the December 13<sup>th</sup> SWC meeting, for information ✓
- Staff set up another meeting/presentation with Ms. Anna Warwick-Sears of the OBWB ✓

# BUDGET FOR 2023-24

REVENUE SOURCE	BUDGET (\$)
2022-23 operational surplus	47,656
2022-23 funds allocated and carried forward to 2023-24 projects (water quality grants)	53,004
<i>Per Contribution Agreement:</i>	
CSRD (Areas C, D, E, F, G and District of Sicamous)	160,000
TNRD	53,600
City of Salmon Arm	40,000
Adams Lake Indian Band	1300
<i>Federal grant funding:</i>	
Transport Canada - Boating Safety Contribution Program	24,025
<b>Summary of revenue for 2023-24</b>	<b>379,585</b>

# BUDGET FOR 2023-24 - SUMMARY

WORK PLAN ITEMS - SUMMARY	Breakdown of expenses (\$)		Total (\$)
	Ext. expenses	Program mgmt.	
Water Monitoring Program	29,100	15,200	40,100
Water Protection Program	131,464	18,600	150,064
Zebra & Quagga Mussel Prevention Program	33,300	6600	39,900
Safe Recreation Program	20,000	10,000	30,000
Communications & Advocacy	10,400	24,100	34,500
Council Meetings & Administration	2600	37,500	40,100
Sub-total expenses for 2023-24	223,864	115,000	338,864
2023-24 contribution to Operating Reserve			40,721
<b>Total expenses for 2023-24</b>	<b>223,864</b>	<b>115,000</b>	<b>379,585</b>

# BUDGET FOR 2023-24 – Q2 EXPENSES

WORK PLAN ITEMS	Annual budget (\$)			Q1+Q2 expenses (\$)		
	External expenses	Program mgmt	Sub-total	External expenses	Program mgmt.	Sub-total
Water Quality Monitoring Program:						
• Shuswap Water Monitoring Group	0	7200	7200	0	640.00	640.00
• Water monitoring expenses	21,900	2200	24,100	16,453.08	600	17,053.08
• Water Quality Report	7200	5800	13,000	8019.51	3760	11,779.51
Water Quality Protection Program						
• Advisory Committee	0	4200	4200	0	853.33	853.33
• Water Quality Grant Program	108,464	9800	118,264	26,590.93	4040	30,630.93
• Wetland Strategy	20,000	4000	24,000	2316.50	3813.33	6129.83
• Climate change impact study (with TRU)	3000	600	3600	3000	280.00	3280.00



# BUDGET FOR 2023-24 – Q2 EXPENSES

WORK PLAN ITEMS	Annual budget (\$)			Q1+Q2 expenses (\$)		
	External expenses	Program mgmt	Sub-total	External expenses	Program mgmt.	Sub-total
Zebra & Quagga Mussel Prevention Program						
• Education and outreach campaigns	33,300	6600	39,900	30,417.11	3760	34,177.11
Safe Recreation Program						
• Safety campaigns	20,000	10,000	30,000	11872.20	3880	15,752.20
Communications, public engagement, & advocacy						
• Communications collateral	3250	6100	9350	2488.62	2400	4888.62
• Public and media engagement	4150	16,800	20,950	5375.97	10,386.67	15,762.63
• Advocacy	0	4200	4200	0	493.33	493.33



# BUDGET FOR 2023-24 – Q2 EXPENSES

WORK PLAN ITEMS	Annual budget (\$)			Q1+Q2 expenses (\$)		
	External expenses	Program mgmt	Sub-total	External expenses	Program mgmt.	Sub-total
Council Meetings & Administration						
• Council meetings, work planning, liaising with Chair and Vice Chair	2600	20,800	23,400	578.88	11,466.67	12,045.55
• Financial management and fund development	0	16,700	16,700	0	7626.67	7626.67
Sub-total expenses	223,864	115,000	338,864	107,112.79	54,000.00	161,112.79
Contribution to Operating Reserve			40,721			
Total budget for 2023-24			<b>379,585</b>			

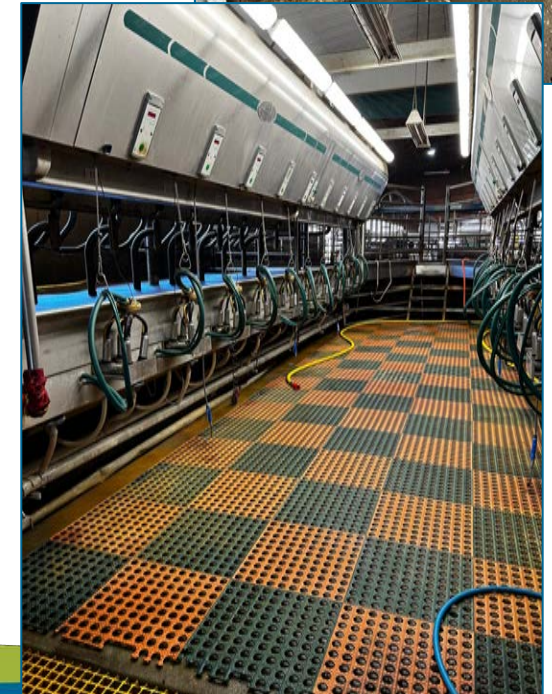
# PROGRAM OPERATIONS SINCE LAST COUNCIL MEETING

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- Field tour – October 20<sup>th</sup> @ Trinity Dairy Farm
- Committee meetings
  - Water Protection Advisory Committee – November 22<sup>nd</sup>
  - Water Monitoring Group – November 28<sup>th</sup>
- Water Quality Grant Program
- Wetland strategy
- Zebra & Quagga Mussel Prevention Program
- Communications
- Advocacy
- Administration



SWC field tour Trinity Dairy Farm  
October 20<sup>th</sup>, 2023







# Shuswap Water Protection Advisory Committee

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- Bi-annual meeting held November 22<sup>nd</sup>
  - Representatives from eight different organizations participated
- Purpose of meeting was to hear updates and review the SWC Water Quality Grant Program Guide
- Next meeting in February to review Water Quality Grant Program applications



# Shuswap Water Monitoring Group

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- Bi-annual meeting held November 28<sup>th</sup>.
  - Staff from 11 different organizations participated
- Reviewed 2023 watershed monitoring activities by all parties
- Roundtable discussion on 2023 wildfire impacts
  - Some concerns and questions raised
  - MOE staff comment on nutrient-loading associated with fires but no additional monitoring planned in 2024
- Next meeting in March to discuss 2024 monitoring plans



# Water Quality Grant Program

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## 2023 Funded Projects

- Rivershore Nursery – fertilizer and irrigation reduction. Project complete.
- Crystal Lake Ranch – livestock control fencing along Eagle River. Project on schedule and on budget.
- Shuswap Organics – cover crops and no-till agriculture. Project complete.
- Fresh Valley Farms – automated pastured livestock management. Project complete.
- Iron Horse Ranch – fencing and off-stream livestock watering. Project complete.



Rivershore Nursery (Mara) – new planting stock inoculated with mycorrhizae; fertilizer and irrigation reduced

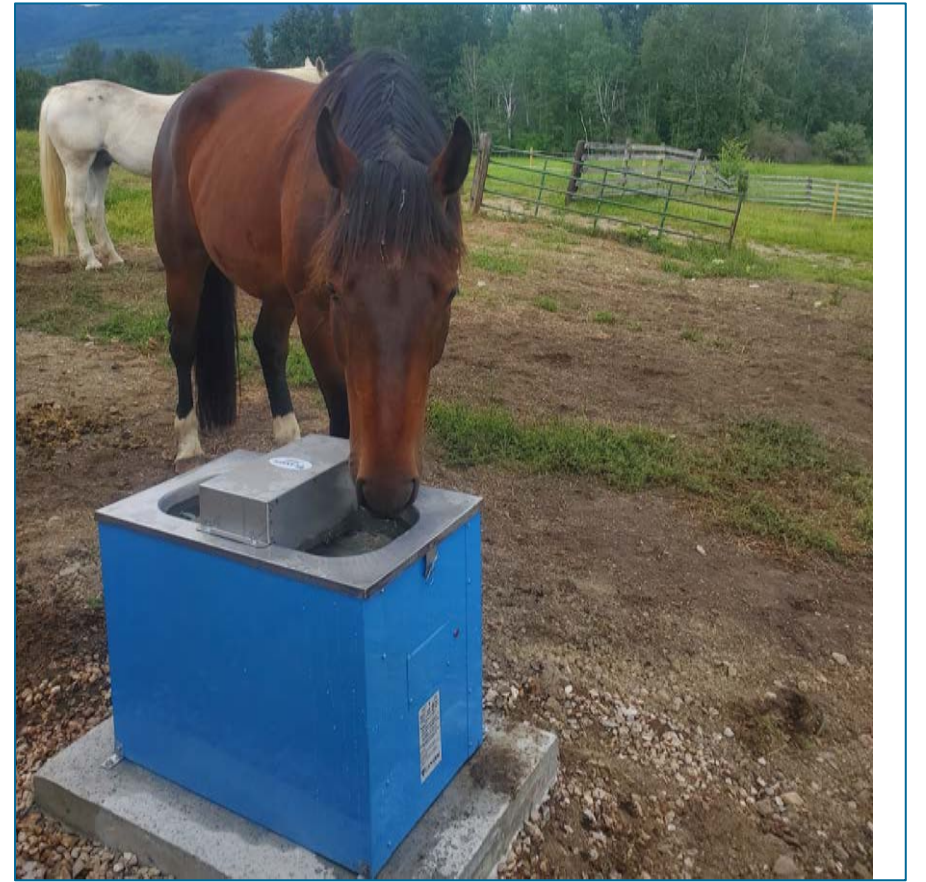


Crystal Lake Ranch (Malakwa) – livestock control fencing along Eagle River





"RovaBarn" at Fresh Valley Farms (Armstrong)



New off-stream watering and fencing at  
Iron Horse Ranch (Celista)



# Water Quality Grant Program

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## 2024 Intake

- Grant Program opened for applications on December 1<sup>st</sup>
  - Open until January 31<sup>st</sup> 2024
  - Staff updated the Grant Program Guide
  - Staff launched an online application platform
- Advertised across the Shuswap watershed
  - Newspapers, social media, word of mouth, agriculture supply stores, EFP advisors
- Informative webinar scheduled for Jan 10 or 11

**SHUSWAP**  
watershed council

## GRANT FUNDING FOR FARMS

Up to \$55,000 grant funding is available from the **Shuswap Watershed Council** in 2024 to assist farmers, landowners and other stewards in the Shuswap watershed with projects to protect or improve water quality.

Deadline for applications is January 31st 2024.  
For more information and to apply, visit our website.

[shuswapwater.ca](https://shuswapwater.ca)

The poster features a light blue background with a large, stylized blue wave graphic on the right side. The Shuswap Watershed Council logo is in the top left corner. The title 'GRANT FUNDING FOR FARMS' is in large, bold, yellow-green letters. The main text describes the grant funding available and the deadline. The website URL and social media icons are at the bottom.

# Wetland Strategy

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- Silvatech Consulting has completed their assessment, inventory and mapping project for the wetlands in the Salmon Arm Bay drainage
  - Staff have received the deliverables: GIS data files, excel spreadsheets
- Ad hoc Wetland Committee met on October 13<sup>th</sup>
  - Reviewed Silvatech's assessment
  - Discussion re: wetland conservation, securing funding for next steps
- Staff have applied for funding from Environment and Climate Change Canada's *Fraser River Basin Water Quality and Ecosystems Partnerships Program*
- Potential next steps (pending funding): further analysis, prioritization, classification of the wetland data to identify key areas for conservation and restoration







# Zebra & Quagga Mussel Prevention

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- Educational campaigns have \*mostly concluded for 2023
  - Discovery of invasive Quagga Mussels in Idaho in September is the closest known presence of invasive mussels to BC
  - Will run occasional educational campaigns throughout the winter months to help ensure Shuswap residents and visitors are aware of the issue and prevention; asking for vigilance from all watercraft users
- Early detection monitoring for ZQM has concluded for 2023
  - No ZQM detected in the Shuswap or anywhere in BC





# Zebra & Quagga Mussel Prevention

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- Opportunity:  
Invasive Species Council of BC is developing an *Invasive Species Strategy for BC 2023-2027*. Draft is open for public feedback until Dec 22.  
Staff will review and feedback re: ZQM.

\* Include link to draft strategy and feedback form in mtg summary



# Communications

- Published updated Nutrients and Water Quality research summary report
- Ran a 'phosphorus education series' on social media in November

## The basics about Phosphorus (P)

The amounts of P really matter in an aquatic ecosystem, such as Shuswap and Mara Lakes. Aquatic life such as algae, invertebrates and fish need P to grow and reproduce.

But, excessive amounts of P increase algal growth, reduce water clarity, create odours, reduce the quality of water for drinking and recreation, and in a worst-case scenario, form harmful algal blooms that are toxic to people, pets and livestock.

## P levels in the lakes are rising

Research has shown that phosphorus (P) levels in the lakes are rising. There is some concern that elevated levels of P could contribute to more frequent algal blooms in Shuswap and Mara Lakes.

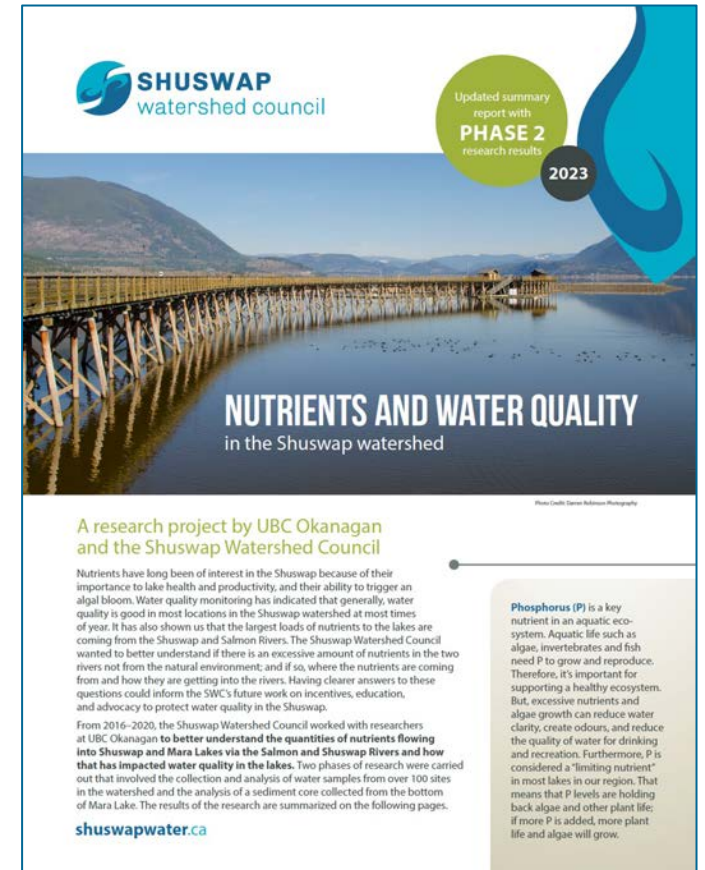
The Shuswap Watershed Council worked with researchers at UBC Okanagan to understand how P levels in Mara Lake have changed over the past two centuries. Using a type of science called **paleolimnology**, the research team learned about historic conditions in Mara Lake and determined how P inputs to the lake have changed over time.

## The need to preserve P in the soil

Our water quality research with UBC Okanagan showed us that agricultural land is the biggest source of phosphorus (P) to Shuswap and Mara Lakes. Other landscapes - urban areas and forests - contribute far smaller proportions of P.

Therefore, new nutrient management strategies will have the greatest impact if they are focussed in agricultural areas. Preserving P in agricultural soils creates a win-win situation for farms and for water quality!

Keeping P in soils and preventing its movement to rivers and lakes will protect our water quality. Here's what the Shuswap Watershed Council is doing about it ...





## Communications

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- Media releases:
  - October 11th: Shuswap Watershed Council releases updated report on nutrients and water quality, and announces grant program opening in December
  - November 2<sup>nd</sup>: Shuswap watershed groups warn of recent Zebra and Quagga Mussel discoveries, call upon Province for more action to prevent spread to BC
  - December 1<sup>st</sup>: Shuswap Watershed Council opens Water Quality Grant Program for applications





## Communications plan for January

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CSRD referendum for SWC funding is re-scheduled to February 3<sup>rd</sup>.  
SWC communications in January will help ensure CSRD residents are informed about the SWC:

- Key collateral: SWC Annual Highlights Report, FAQ document, website
- Key messages: SWC role as advocate, collaborator, educator, support for monitoring and research
- Method: social media, newspaper advertisements



# Advocacy

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- Invasive mussels:
  - November 2<sup>nd</sup>: Letter from the SWC to responsible ministries with the Province of BC asking for a series of new measures to prevent the spread of ZQM to BC
  - November 28<sup>th</sup>: Letter from the SWC to three Federal departments to re-iterate concerns about the threat of ZQM and ask for a series of new measures to prevent the spread of ZQM to BC
- Water quality and algal blooms:
  - November 8<sup>th</sup>: Follow-up letter from the SWC and local governments to Interior Health regarding algal bloom response and responsibilities.



## Administration

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- As directed in the September meeting, staff have prepared an amendment to the Contribution Agreement between Fraser Basin Council and the four funders (CSRD, TNRD, City of Salmon Arm, Adams Lake Indian Band)
  - Main amendment: date extension to March 31<sup>st</sup> 2025 (previously March 31<sup>st</sup> 2024)
  - Document is in process of being signed by the funding partners
- Fund development: staff applied for grant funding from Transport Canada Boating Safety Contribution Program in October. Request of \$24,391 would support safe boating and swimming campaigns in 2024.



## Budget updates

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See agenda package p. 49

- Increase Communications – public engagement and media budget by \$6100 (\$5500 for expenses and \$600 for program management)
  - This will allow staff to place more information about the SWC's work as paid advertisements in the media in the weeks leading up to the re-scheduled CSRD referendum
- Re-allocate funding within Wetland Strategy budget
  - \$1600 from expenses to program management
  - To allow staff to continue managing the project until fiscal year-end.



**NEW BUSINESS**

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## Meeting schedule for 2024

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- March 13<sup>th</sup>
- June 12<sup>th</sup>
- September 11<sup>th</sup>
- December 11<sup>th</sup>

Time: 9:30 AM – 12:00 PM

Location: CSRD Boardroom in Salmon Arm except the December meeting held via Zoom.