



Lakeland Industry and Community Association

Box 8237, 5107W - 50 Street, Bonnyville, AB T9N 2J5

780 812-2182 780 812-2186 www.lica.ca

BOARD OF DIRECTORS

Meeting Minutes

Thursday, March 23, 2023

9:00 a.m. – 11:30 a.m.

LICA Boardroom and via Microsoft Teams

Present: Colin Cote
John Ilchuk
Amanda Avery Bibo
Leo Paquin
Nikole Andres
Shawn Elgert
Kelly Dion-McFeeters
Vicky Lefebvre
Murray Phillips

Guests and Observers:

Staff and Contractors: Vicky Krawchuk, Executive Director
Maria Cueva, Financial Coordinator
Michael Bisaga, Environmental Monitoring Programs Manager
Kayla Hellum, Environmental Coordinator
Stephanie Sitkowski, E & O Coordinator
Eveline Hartog, Administrative Professional
Lori Jodoin, Administrative Professional

Regrets: Louise White-Gibbs
Kayla Blanchette
Abdi Siad-Omar
Wayne Bamber
Robert Machatis
Lorin Tkachuk
Xiaofeng Wang
Duane Zaraska

1.0 CALL TO ORDER:

The LICA Board Chairperson, called the meeting to order at 9:07 a.m.

1.1 Traditional Acknowledgement

1.2 Member Introductions

1.3 Vision, Mission, and Values

1.4 Attendance

The Board reviewed the Attendance Record, noting that there were no concerns.

1.5 Approval of Agenda

1.5.1 March 23, 2023, Board of Directors Meeting

#1 Moved by John Ilchuk AND CARRIED that the March 23, 2023, Agenda be approved as presented.

1.6 Approval of Minutes

1.6.1 February 23, 2023– Board Meeting Minutes

#2 Moved by Leo Paquin AND CARRIED that the Minutes of the February 23, 2023, Board meeting be approved as presented.

2.0 ONGOING BUSINESS

2.1 Education and Outreach Coordinator Report

The Education and Outreach Coordinator delivered her report, noting:

- Seven air-based classroom presentations have been completed in the fourth quarter. The goal was ten but with staff turnover, this is a great accomplishment.
- Since January 1, 2023, 78 Vermicomposting bins have been completed.
- Myrnam Adult Learning Center DIY Day was successful. Twenty people participated in the vermicompost workshops. They will be holding another workshop in the fall and asked our Education and Outreach Coordinator to present again, either for vermicomposting or bird identification.
- Positive reviews have been received from Myrnam School classroom presentations, especially with the Skulls and Pelts Program.
- Potential collaboration with Kehewin Tribal Coordinator, who also sits on the LICA Board. Kehewin’s prime audience is youth, so they are looking forward to the collaboration and partnership.
- ALUS Presentation and Townhall was held on February 27th. Members of the public joined as did representatives from the County of St. Paul. A detailed review will occur in April, in regard to moving forward with ALUS.

- Stream of Dreams applications are coming in for Fall 2023.
- Virtual Science Fair information has been distributed to schools and shared on social media. The deadline for submission is April 14, 2023.
- World Water Day Webinar was held on March 22, 2023, and approximately 70 people joined. LICA's Alberta Agriculture and Forestry Board representative was also in attendance.
- LICA will be attending and setting up a booth at the Volunteer Showcase in Cold Lake, on April 21, 2023.
- LICA's YouTube videos have had increased views. The spring project will be to increase video activity.

2.2 Manager of Environmental Monitoring Programs Report

The Manager of Environmental Monitoring Programs delivered his report, noting:

- With supply chain issues there will be underspent funds for the 2022-23 fiscal year. They are working to responsibly maximize spending for year-end.
- Alberta Airsheds Council 2022 Report will be released in a few weeks. LICA is reporting on airshed zones for the entire province.
- Cold Lake Long-Term Soil Acidification Monitoring Report was finalized in March 2023 and posted on the website.
- Final Report to Alberta Environment will be completed prior to month end. Maps will be redone and uploaded in the report before sending it off. This report fulfills the requirement for the Air Monitoring Directive.
- Once all annual data is completed the Annual Data Validation program will be run ahead of Alberta EPA's data audit, to proactively review the data prior to the audit.
- Dashboard reporting will be redone as several changes have been made to the networks over the past two years. Dashboard reports will be rebooted.
- AQHI Map displays the air health in our area. Two factors driving air quality values into the moderate range are ozone and particulate matter. St. Lina, Lac La Biche, and Cold Lake are in the moderate AQHI level.

2.3 Environmental Coordinator Report

The Environmental Coordinator delivered her report, noting:

- Riparian Health Campaign will proceed with confirmation of the increased grant funding and will start in the Spring.
- The status of commencing the Riparian Intactness Assessment project is pending due to the confirmation of WRRP grant funding.
- IWMP copies have been printed off and will be given to decision makers in the Watershed. Promotional items, such as shirts and hats have been ordered and will also be given out. The next LICA Watershed Meeting is on April 4, 2023. The next WPAC Managers Meeting will be held in April 2023.
- Bird Monitoring will continue until April 1, 2023. Many families have been participating in this initiative.
- On March 8, 2023, the LISC approved the 2023 ALMS LakeWatch Program Proposal, to sample ten lakes within the LICA region with a total funding value of \$50,000.
- A Species at Risk flip book will be created with photos and identification features for use in the community.

- Muriel Lake Basin Management Society announced at their meeting that they are downsizing projects they are involved in. One of those projects will be CreekWatch.

2.3.1 2022 CreekWatch Summary Report

The Environmental Coordinator created an in-depth 2022 CreekWatch Summary Report and delivered the conclusion of the report to the Board. This document will be posted on the LICA Website and shared with CreekWatch members.

She reminded the Board about the difference between ALMS and CreekWatch. ALMS has scientific testing with laboratory results and CreekWatch includes results from Citizen Science volunteers based on their observations. Citizen Science is beneficial to provide on-the-ground observations.

A Board member inquired about testing for caffeine in the water, which is an indicator of human contaminants. The Environmental Coordinator explained that it was not tested for, as they tested only parameters given by RiverWatch. If CreekWatch commences this upcoming season, she will check to see if caffeine sampling can be done.

Another Board member invited our Environmental Coordinator to a Zoom Meeting put on by Blue Quills Social Programs, on March 31, 2023. Dr. Dawn Martin Hills will be presenting on Women’s Water Law. The Board member was going to check to see if this could be a possible Lunch and Learn opportunity for LICA and would let the Environmental Coordinator know.

2.4 Administration

2.4.1 Executive Director’s Report

The Executive Director delivered her report, noting:

- Deadline for the interim reporting requirements of the WPAC Operating Grant and the AEG is April 15, 2023.
- Q4 OSM financial reporting to be submitted by to March 27, 2023.
- Year-end reporting and budgeting are well underway; a final year-end financial report will be provided to the Board in April.
- WPAC Grant and AEG Agreements for 2023-27 were accepted and will be signed by the Officers and submitted by the March 24, 2023, deadline. There is an increase of funding in both Grants, with a 64% and 55% increase respectively. The Executive Director shared this information, in a chart, in her report.
- A Board member suggested writing a letter of appreciation to the Minister of Environment and Protected Areas, Minister Sonya Savage. A thank you letter will be submitted for both the WPAC Operating Grant and Airshed Engagement Grant increased funding.
- Budgeting documents have been created to assist staff who are working with the financial budget.
- The Executive Director’s last day will be March 31, 2023. She thanked everyone for the opportunity to be a part of the LICA team and expressed

her enjoyment of working with everyone. Board members shared their appreciation for her hard work and dedication.

2.4.1.1 Summer Student Hiring Committee

The Summer Student Job Advertisement has been sent out to all local High Schools and resumes are starting to come in. The Executive Director opened the floor to the creation of an ad hoc Hiring Committee. The Committee will consist of the following:

- Executive Director
- Education and Outreach Coordinator
- Environmental Coordinator
- Kelly Dion-McFeeters
- Amanda Avery-Bibo

This Committee will review resumes and will contact those they would like to interview. Interviews will consist of a panel of the Education and Outreach Coordinator, the Executive Director, and a Board member.

#3 Moved by John Ilchuk AND CARRIED that the Summer Student ad hoc Hiring Committee will consist of the Executive Director, Education and Outreach Coordinator, Environmental Coordinator, Kelly Dion-McFeeters, and Amanda Avery-Bibo.

2.4.2 Financial Reports

2.4.2.1 Accounts Receivable Report to March 14, 2023

The accounts receivable report as of March 14, 2023, was presented to the Board. Payment from the County of Two Hills has been received since this report was created and confirmation from the others stated that payments will be received shortly.

2.4.2.2 Finances to Date February 28, 2023

The finances to date as of February 28, 2023, were presented to the Board. One corporate member and one municipal member have decided to opt out of LICA membership this year, these being Pure Environmental and the Municipal District of Bonnyville. It was suggested by the Board to offer the MD of Bonnyville a free one-year membership with a non-voting seat on the Board, via a delegation. The Chairperson and Executive Director will organize this delegation.

#4 Moved by Murray Phillips AND CARRIED that LICA extends a free non-voting membership for 2023 to the MD of Bonnyville through a delegation.

2.4.2.3 Finances to Date March 22, 2023

The finances to date as of March 22, 2023, were presented to the Board. An updated report was given regarding the WPAC fraudulent cheques. The Credit Union is pending a signature from the Chairperson regarding this issue.

The Financial Coordinator noted that we are on budget for the end-of-the-year financials.

2.4.3 Change Date for June Board Meeting, Bonnyville Oil & Gas Show

The Executive Director discussed moving the June Board Meeting as that date conflicts with the Bonnyville Oil & Gas Show. Board members agreed to move the June Board Meeting to June 15, 2023.

#5 Moved by Colin Cote AND CARRIED that the June Board Meeting be moved to June 15, 2023.

3.0 ACTION LIST

3.1 Follow-up on action list

3.1.1 February 23, 2023, Board of Directors Meeting

The Board reviewed the action list for February 23, 2023.

4.0 UPCOMING MEETING DATES

4.1 Board Meeting – April 27, 2023

5.0 ADJOURNMENT

The meeting adjourned at 11:20 a.m.

#6 Moved by Colin Cote AND CARRIED that the meeting is adjourned.

Approved on: _____
Date

Signature

LICA Board of Directors Meeting Attendance 2022-23

Name	Org. Meeting	Oct. 20, 2022	Nov. 24, 2022	Dec. 15, 2022	Jan. 26, 2023	Feb. 23, 2023	Mar. 23, 2023	Apr. 27, 2023	May 25, 2023	June 22, 2023	Sept. 28, 2023
Louise White-Gibbs	✓	✓	✓	✓	✓	✓					
Kelly Dion-McFeeters	✓	✓	A	A	TC	TC					
Colin Cote	✓	✓	✓	✓	✓	✓					
John Ilchuk	✓	✓	A	✓	✓	✓					
Amanda Avery-Bibo	✓	✓	✓	✓	✓	TC					
Duane Zaraska	✓	✓	✓	A	A	A					
Robert Machatis	✓	✓	✓	✓	✓	A					
Leo Paquin	A	A	✓	✓	✓	TC					
Nikole Andres	A	A	TC	✓	✓	✓					
Wayne Bamber	✓	✓	✓	✓	✓	TC					
Shawn Elgert	TC	TC	TC	TC	TC	TC					
Hannah Smith	A	A	TC	-	-	-					
Xiaofeng Will Wang	-	-	-	✓	A	A					
Abdi Siad-Omar	A	A	A	TC	A	TC					
Murray Phillips	✓	✓	TC	✓	✓	A					
Phil Kushnir	A	A	✓	A	✓	-					
Kayla Blanchette	-	-	-	-	-	✓					
Vicky Lefebvre	TC	TC	TC	TC	A	TC					
Lorin Tkachuk	A	A	A	A	TC	A					
Contractors											
Michael Bisaga		✓	✓	✓	✓	✓					
Kayla Hellum		✓	✓		✓	✓					
Lily Lin		✓	✓	✓	✓	✓					
Education & Outreach Coordinator			✓	✓	✓	✓					

NOTE:

✓ = Present

TC = Telephone/Video Conference

A = Absent from Meeting



LICA
ENVIRONMENTAL STEWARDS

Lakeland Industry and Community Association

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LICA Board of Directors Meeting
LICA Boardroom and via Microsoft Teams
Thursday, March 23, 2023
9:00 a.m. – 11:30 a.m.

Time	Item	Agenda	Discussion Leader	Required Outcome
9:00	1.0	CALL TO ORDER		
	1.1	Traditional Acknowledgement	Amanda	
	1.2	Member Introductions	All	
	1.3	Vision, Mission, and Values	Amanda	
	1.4	Attendance	Amanda	For Review
9:10	1.5	Approval of Agenda		
		1.5.1 March 23, 2023, Board of Directors Meeting	Amanda	For Decision
9:15	1.6	Approval of Minutes		
		1.6.1 February 23, 2023 – Board Meeting Minutes	Amanda	For Decision
	2.0	ONGOING BUSINESS		
9:20	2.1	Education and Outreach Coordinator Report	Stephanie	For Information
9:35	2.2	Manager of Environmental Monitoring Programs Report	Mike	For Information
9:50	2.3	Environmental Coordinator Report	Kayla	For Information
		2.3.1 2022 CreekWatch Summary Report	Kayla	For Information
10:20	2.4	Administration		
		2.4.1 Executive Director's Report	Vicky	For Information
		2.4.1.1 Summer Student Hiring Committee	Vicky	For Decision
10:50		2.4.2 Financial Reports		
		2.4.2.1 Accounts Receivable Report to March 14, 2023	Maria	For Information
		2.4.2.2 Finances to Date February 28, 2023	Maria	For Information
11:05		2.4.2.3 Finances to Date March 22, 2023	Maria	For Information
		2.4.3 Change Date for June Board Meeting, Bonnyville Oil & Gas Show	Vicky	For Decision
	3.0	ACTION LIST		
11:15	3.1	Follow-up on action list		
		3.1.1 February 23, 2023, Board of Directors Meeting	Amanda	For Review
	4.0	UPCOMING MEETING DATES		
11:25	4.1	Board Meeting – April 27, 2023	Amanda	For Information
11:30	5.0	ADJOURNMENT	Amanda	For Decision



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BOARD OF DIRECTORS

Meeting Minutes

Thursday, February 23, 2023

9:00 a.m. – 11:30 a.m.

LICA Boardroom and via Microsoft Teams

Present: Louise White-Gibbs (arrived at 9:25 a.m.)
Colin Cote
John Ilchuk
Amanda Avery Bibo
Leo Paquin
Nikole Andres
Wayne Bamber
Shawn Elgert
Abdi Siad-Omar
Kelly Dion-McFeeters
Vicky Lefebvre
Kayla Blanchette

Guests and Observers:

Staff and Contractors: Vicky Krawchuk, Executive Director
Maria Cueva, Financial Coordinator
Michael Bisaga, Environmental Monitoring Programs Manager
Lily Lin, Data & Reporting Specialist
Kayla Hellum, Environmental Coordinator
Stephanie Sitkowski, E & O Coordinator
Eveline Hartog, Administrative Professional
Lori Jodoin, Administrative Professional

Regrets: Murray Phillips
Robert Machatis
Lorin Tkachuk
Xiaofeng Wang
Duane Zaraska

1.0 CALL TO ORDER:

The LICA Board Chairperson, called the meeting to order at 9:03 a.m.

1.1 Traditional Acknowledgement

1.2 Member Introductions

Kayla Blanchette has replaced Phil Kushnir as the Town of Bonnyville Board Member, due to scheduling issues.

1.3 Vision, Mission, and Values

1.4 Attendance

The Board reviewed the Attendance Record, noting that there were no concerns.

1.5 Approval of Agenda

1.5.1 February 23, 2023, Board of Directors Meeting

#1 Moved by Colin Cote AND CARRIED that the February 23, 2023, Agenda be approved as presented.

1.6 Approval of Minutes

1.6.1 January 26, 2023– Board Meeting Minutes

#2 Moved by John Ilchuk AND CARRIED that the Minutes of the January 26, 2023, Board meeting be approved as presented.

2.0 ONGOING BUSINESS

2.1 Education and Outreach Coordinator Report

The Education and Outreach Coordinator delivered her report, noting:

- Two air-based presentations have been completed this month. We are on target to reach our goal of 10 this year.
- Vermicomposting Workshops have been successful in both Lac La Biche and Bonnyville.
- Bird ID Workshop was held February 13, 2023, in Bonnyville. This workshop is will also be held in Lac La Biche at a later date.
- Caribou Restoration Project Presentation will be held on March 9, 2023, by Jason Barrie with Cenovus.
- Stream of Dreams Programming will be done at Light of Christ School in Lac La Biche.

- Homeschool students will start to meet on Friday afternoons, in the LICA Boardroom to participate in some of LICA's school programs. This will be starting on February 24, 2023.
- Two Social Media posts were boosted on events this month to increase reach.

2.1.1 Skulls and Pelts Purchase Proposal

The Education and Outreach Coordinator presented this to the Board for information as she received approval from the Officers to purchase skulls and pelts, through an email motion on February 7, 2023. The motion stated, "Moved by Leo Paquin and seconded by Louise White-Gibbs AND CARRIED to authorize the Education and Outreach Coordinator to purchase of educational tools as per the Skulls and Pelts Purchase Proposal up to a maximum amount of \$2500.00."

This email was sent to facilitate the quick purchase of the items since schools are requesting these presentations now. In the next two weeks, this presentation is booked five times.

2.1.2 Community Initiatives Outside the LICA Region

At the Education and Outreach Committee Meeting on February 7, 2023, it was brought to discussion that the County of Two Hills is a LICA member, but only part of the county falls within the LICA region. What happens if an organization, outside of the LICA region, would like to schedule a LICA presentation? Do they have to come to a facility within the LICA boundary?

A discussion was then held by the Board members. One member stated that a rule may need to be put into place to set up a physical boundary, for example, 20 kilometers outside the LICA boundary.

A few Board members brought up the idea of possibly having a cost associated with the program if they are outside of our region, to help offset expenses. Another member liked the idea of a paid membership to have LICA's presence in their area. Possibly adding a per-school basis to their membership.

Another Board member was concerned about overwhelming the Education and Outreach Coordinator. If we keep expanding, the programming in our region may be diminished. The Education and Outreach Coordinator was wondering if programming would need to be adjusted as not all areas are the same, due to the watershed and airshed boundaries. A suggestion was brought forward that groups could possibly bus into our region for programming, as our Coordinator doesn't have time to travel further outside our region and there are the additional costs associated.

The Executive Director mentioned that insurance would have to be reviewed and changed to go outside of our region.

It was brought to consensus that groups seeking programming from LICA, would have to come to a facility within our boundary or they could partake in the programs virtually. Programming will remain in the LICA boundary for the time

being. Requests can be presented to the Board of Directors and reviewed in a case-by-case manner, if a group is requesting a program outside the LICA region.

A Board member stated that this may need to be revisited in the future if there are many requests, to determine if we have the capacity to fulfill it. It is a potential growth option if our staff capacity and funding increase.

2.2 Manager of Environmental Monitoring Programs Report

The Manager of Environmental Monitoring Programs delivered his report, noting:

- Seeking quotes to replace the St. Lina Monitoring Station as it is dealing with a winter fly infestation and dry rot.
- Work plan and budgets are under review and should be determined by March 4, 2023. This will secure funding for the upcoming year.
- Purple Air Deployment Campaign is looking to find partners to host these sensors. They are small and require wifi and a power source to operate. The power consumption for the year is around \$10.00. Would like these set up before the forest fire season begins, especially since they measure particulate matter. Currently they are located in Bonnyville, Cold Lake, Lac La Biche County Office, rural St. Paul, and Blue Quills University. Additional southeast areas to target are Marwayne, Heinsberg, and Frog Lake; west areas to target are Kikino, Buffalo Lake, and Iron River.
- Reviewed map work in digitizing soil acidification monitoring in the LICA region; this is nearly complete. This is the preliminary work before recommending a fifth site for soil monitoring.
- Planning to have an Acid Deposition Committee Meeting in late March.

2.3 Environmental Coordinator Report

The Environmental Coordinator delivered her report, noting:

- The “Look What LICA Is Up To!” Map is on the LICA website.
- Updated information from the WPAC managers’ meeting. We are currently in the last quarter of the fourth year for funding which ends March 31, 2023. Potentially receiving an increase in grant funds requested.
- ALMS 2022 LakeWatch Report is now posted on the website, was also shared on social media, and emailed to the LICA members.
- Bird ID Workshop was attended by 10 community members.
- Creek Watch will now be asking for a donation fee for this next season. It will be included in a proposal for the March Board Meeting.
- Lunch and Learn was hosted on February 16, 2023, and attended by four community members. One new LICA member was acquired at this event.

2.4 Administration

2.4.1 Executive Director’s Report

The Executive Director delivered her report, noting:

- T4 slips and stipends are completed and have been mailed out.
- 2023 ALMS LakeWatch Program Proposal has been submitted to the LISC for approval.

- EPA will be providing an increased amount in funding towards the Airshed Grant for 2023-27, according to written confirmation from Minister Savage.
- The Societal Annual Return Proof of filing was received on February 8, 2023.
- 2022-23 Strategic Plan Final Report has been distributed to all staff to work on.
- Drake Contracting has offered to clear our LICA parking lot for free, including hauling of snow on an as-needed basis. Posts have been made on Facebook to thank them for their generosity, each time they donated their service. A token of appreciation will be delivered to them at end of season.
- The former Executive Director, who is currently on maternity leave, has submitted her return-to-work letter and will commence on April 3, 2023.

2.4.2 Financial Reports

2.4.2.1 Accounts Receivable Report to February 15, 2023

The accounts receivable report as of February 15, 2023, was presented to the Board. Since the report was created, we have received the full amount from Alberta Environment and Parks (AEP), on February 21, 2023.

2.4.2.2 Finances to Date January 31, 2023

The finances to date as of January 31, 2023, were presented to the Board, noting:

- ALMS invoice of \$50 000.00 was received and payments will go out next week.
- CIP Grant has \$3363.61 left to spend.
- Two municipalities owe for membership but everything else is on track.
- WCB Annual Return 2022 has been filed.
- RCMP representative has been in contact regarding the fraudulent cheques.
- Financial Coordinator was wondering about the fraud recommendations which were made at the January Board Meeting regarding all Board and Committee Members being paid by electronic direct deposit. Seeking Board direction on how to move forward in this situation.
- Completed Cyber Security Awareness Training.
- Budget is on track. Spending AEG and OSM to ensure budget has been spent, then spending will continue in the WPAC and Industry revenue streams. Program Managers and Staff are being updated on their budget to facilitate spending. Financial Coordinator is working irregular hours to be as up to date and timely as possible.

2.4.3 Education and Outreach Committee (EOC)

2.4.3.1 February 7, 2023, E&O Minutes- DRAFT

The Draft February 7, 2023, Education Outreach Committee meeting minutes were presented to the Board as information.

2.4.4 Governance Committee

2.4.4.1 February 8, 2023, Minutes - DRAFT

The Draft February 8, 2023, Governance meeting minutes were presented to the Board as information.

2.4.4.2 Review of February 8, 2023, Policies

2.4.4.2.1 Policy 1.10 Office Hours of Operation

#3 Moved by Louise White-Gibbs AND CARRIED that Policy 1.10 *Office Hours of Operation* be accepted as presented.

2.4.4.2.2 Policy 2.11 Recognition

#4 Moved by John Ilchuk AND CARRIED that Policy 2.11 *Recognition* be accepted as presented.

2.4.4.2.3 Policy 2.13 LICA Membership in Other Organizations

#5 Moved by Colin Cote AND CARRIED that Policy 2.13 *LICA Membership in Other Organizations* be accepted as presented.

2.4.4.2.4 Policy 4.3 Social Media Management

#6 Moved by Louise White-Gibbs AND CARRIED that Policy 4.3 *Social Media Management* be amended to read:

“Policy 4.3- Item 4.3.2.5 Security and Passwords

- Authorized staff should be the only employees and contractors with access to post on LICA’s social media accounts.”

2.4.4.2.5 Policy 2.7 Board and Committee Expenses and Remuneration

#7 Moved by Colin Cote AND CARRIED that Policy 2.7 *Board and Committee Expenses and Remuneration* be accepted as presented.

2.4.4.3 Appointment of New Committee Member

#8 Moved by Louise White-Gibbs AND CARRIED that Appointment of New Governance Committee Member Justin Inman be accepted as presented.

3.0 ACTION LIST

3.1 Follow-up on action list

3.1.1 January 26, 2023, Board of Directors Meeting

The Board reviewed the action list for January 26, 2023.

4.0 UPCOMING MEETING DATES

4.1 ALUS 101 – February 27, 2023, 1:00 pm - 4:00 pm

4.2 Board Meeting – March 23, 2023

5.0 ADJOURNMENT

The meeting adjourned at 10:42 a.m.

#9 Moved by John Ilchuk AND CARRIED that the meeting is adjourned.

Approved on: _____
Date

Signature



Lakeland Industry and Community Association
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LICA Education & Outreach Update March 13th, 2023

Program and Event Analytics 2022 - 2023					
Synergy		Watershed		Airshed	
Audience Reached	2063	Water School Programs	55	Air School Programs	7
Community Events	10	X-Stream Science	3	CARS	0
LICA Workshops/Events	15	Stream of Dreams	2		
Contests	2	Vermicompost Bins (From Jan 1 st)	78		
Youth & Summer Programs	13				
Little Green Thumbs	0				

Recent Meetings and Events

- February 15th – Vermicomposting Lac La Biche
- February 16th – LICA Lunch and Learn
- February 21st – LICA Staff Meeting
- February 27th – ALUS 101 Presentation and Townhall
- March 10th – Homeschooling programming in LICA Boardroom
- March 1st-2nd – Classroom presentations at Light of Christ in Lac La Biche
- March 8th – Caring for Our Watersheds Meeting/Contest Judging
- March 9th – Industry Talk – Jason Barrie Cenovus Caribou Restoration
- March 11th – Myrnam Adult Learning Center DIY Workshops – Vermicompost
- March 14th/15th – First Aid @ SafeNet
- March 16th – Bonnyville Wellness Coalition Meeting
- March 17th – Homeschooling programming in LICA Boardroom

- March 20th/21st – InDesign Course via UofA Online
- March 21st – LICA Staff Meeting
- March 22nd – World Water Day Webinar via Alberta WPACs

Stream of Dreams

- Applications have been coming in for Fall 2023.

Community Workshops

- ALUS 101 Presentation and Townhall (February 27th, 1:00pm-4:00pm) went well – members of the public joined, as well as representatives from St. Paul.
- Jason Barrie presented the Cenovus Caribou Restoration Project Industry Talk on March 9th. Follow up Industry Talk presentations are in the works.
- March 11th delivered two vermicompost workshops to the Myrnam Adult Learning Center DIY Day
- Since January 1st, we have sent 78 vermicompost bins into the community.

School Programming

- Two more air-based presentations are required to reach our goal of ten; we have hit the target for water-based presentations.
- We will be hosting a group of homeschooling families at the LICA office for the last week of programming in our Board Room.

Caring for Our Watersheds

- Judging of the project proposals commenced on March 8th. I had the opportunity to read ten proposals and grade them for consideration in the finals.

Virtual Science Fair

- Science fair has been advertised and has been disseminated to all schools.

Social Media

Social Media Analytics					
Platform	Likes	Followers	Reach	Engagement (90-day period)	Page Views
Facebook					

Jan 17 - Feb 14 Insights	794	889	6087	665	217
Feb 14 – Mar 13 Insights	788	889	5331	544	91
Instagram					
Jan 17 - Feb 14 Insights	-	528	219	187	29
Feb 14 – Mar 13 Insights	-	527	333	199	14

Platform	Subscribers	Impressions	Watch Time (Hours)	Video Views
YouTube				
Jan 17 - Feb 14 Insights	7	11	0.0	1
Feb 14 – Mar 13 Insights	7	20	0.1	2

Social Media Definitions

Platform	Using websites and applications to communicate informally with others, find people, and share similar interests. Allows users to directly connect with one another through groups, networks, and locations.
Likes	The number of likes of your Facebook Page.
Followers	The number of accounts that started following your Instagram account.
Reach	The number of people who saw any content from your Page or about your Page, including posts, stories, ads, social information from people who interact with your Page, and more. Reach is different from impressions, which may include multiple views of your posts by the same people. This metric is estimated.
Engagement	The number of reactions, comments, and shares on your posts.
Page Views	The number of times your page (profile) was visited.
Subscribers	The people or accounts that are subscribed to your channel.
Impressions	How many times your video thumbnails were shown to viewers. Includes only impressions on YouTube, not on external sites or apps.

Watch Time:	Channel watch time compared with the previous period. This includes public, private, unlisted, and deleted videos.
Video Views	Channel views compared with the previous period. Over time, this can help you spot high-performing videos, anticipate seasonal changes, and determine when to upload new videos. This includes public, private, unlisted, and deleted videos.

Upcoming Meetings and Events

- April 4th – AAC Communications Committee Meeting
- April 13th/14th – Lac La Biche School Programming
- April 14th – Due Date for Virtual Science Fair
- April 18th - LICA Staff Meeting
- April 21st – Volunteer Showcase Cold Lake
- April 22nd – MFRCS Earth Day

Environmental Monitoring Programs

March 23rd 2023, Board of Directors Update



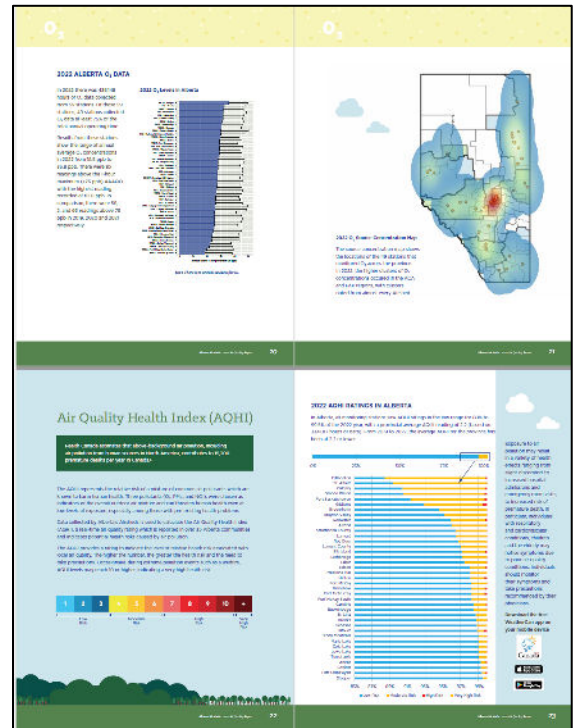
Routine Operations & Reporting

Network Improvements: Work is ongoing to responsibly maximize year-end spending.

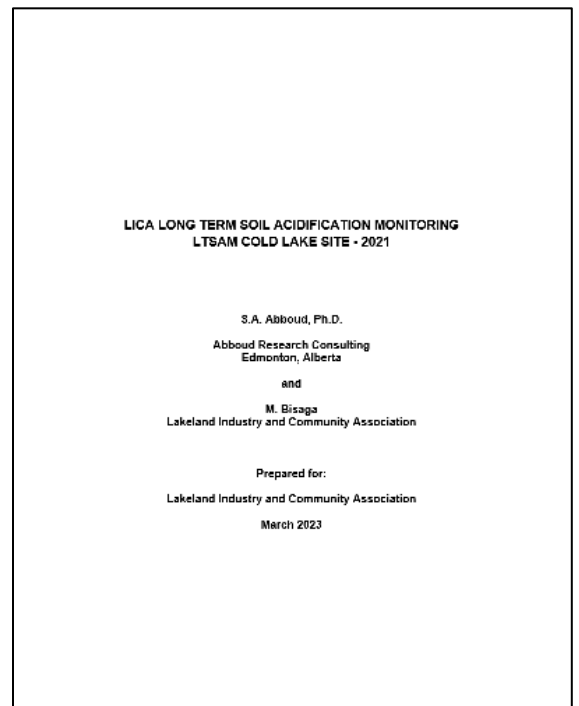
Special Projects and Other Updates

March Madness – Reporting!

Alberta Airsheds Council 2022 Report: LICA provided a comprehensive review of the Alberta Airsheds Council (AAC) 2022 Annual Report. This is the 3rd iteration of the AAC Annual Report; it provides a summary of the air quality data collected and verified by Alberta's Airsheds, on behalf of all of Alberta's air quality stakeholders. The report underscores the importance of understanding air quality and its impacts, helping Albertans make informed choices related to their health.



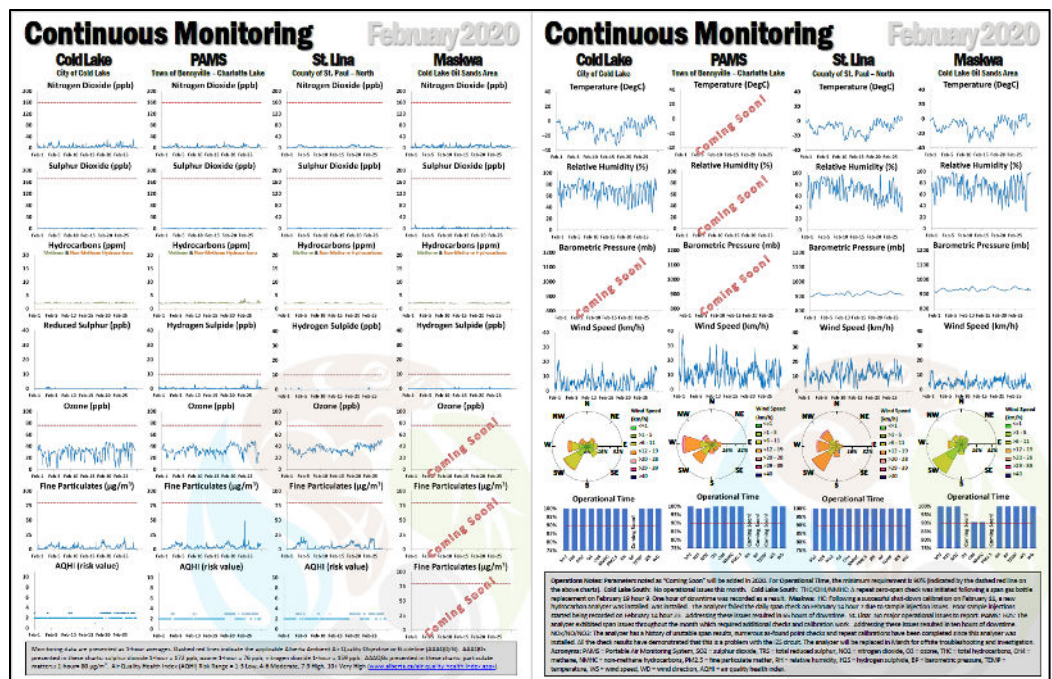
Cold Lake Long-Term Soil Acidification Monitoring: This report was finalized in March and summarizes 2021 soil acidification parameters (soil attributes that can be directly affected by ongoing acidic inputs) using descriptive statistics and analysis of variance at the Cold Lake Long-Term Soil Acidification Monitoring (LTSAM) site. These data were used to determine if there are significant differences between sampling periods (1982 to 2021) and the paired sampling plots (East and West). Overall, the data suggest that slow acidification may be occurring. Assessment of these trends requires ongoing, routine monitoring, which is part of the design of the LICA and LTSAM soil monitoring program. LICA's long-term surveillance of soil acidification parameters is needed; changes in soil chemistry may affect other components of the ecosystem.



Annual Reports: The annual report for 2022 is complete and has been submitted to Alberta Environment and Protected Areas according to requirements in the Air Monitoring Directive. The reports contain 5-year summaries of key pollutants. There has been a network-wide decrease in the ambient concentration of total hydrocarbons; this is likely due to recent regulations being more stringent with respect to hydrocarbon emissions, namely methane under Directive 60. Sulphur dioxide shows an increase at some stations, typically those closer to industrial operations. This pattern of observations is likely due to what we already know about increasing sulphur dioxide emissions in the region which is the main driver for LICA developing the Acid Deposition Monitoring Strategy for the Cold Lake Region.



Dashboard Reports – Staff are preparing to reboot the monthly dashboard reports. The dashboard reports provide an at-a-glance way to see all data generated by LICA's monitoring network on a monthly basis. With new parameters being added to support the ADMPEC's work, now is a good time to revisit this reporting product. Time is needed to set-up the template; the first dashboard will be released in April or May for the January 2023 reporting period.



Annual Data Validation Project: Preparations are underway to run the annual data validation program ahead of Alberta EPA's data audit. The internally developed protocol mirrors the criteria used by the EPA, and pre-emptively identifies issues before EPA conducts their audit tasks/functions. This is the second year that LICA will use the protocol.

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Data and Reporting Specialist



Environmental Coordinator Programs Update

March 23, 2023, Board of Directors Meeting

2023 Projects:

- The board will be advised once the funding outcome is received.
 - WPAC Operational Grant: Riparian Health Campaign.
 - WRRP Grant: Riparian Intactness Assessments.

LICA Watershed Committee (LWC):

- IWMP
 - Implementation is ongoing.
 - Hard copies of the IWMP and summary document will be printed & coiled for decision-makers in the watershed.
 - A few shirts/hats will also be purchased with the quote "A healthy Beaver River watershed for the future. -LICA IWMP" stitched on them, to support additional awareness in the community.
- A short committee meeting will be held at the end of the month.

Watershed Planning & Advisory Council (WPAC) Managers

- The Alberta WPACs are currently working on a Compendium for 2022/2023. Each WPAC provided an update to highlight the achievements of the year.
- April 12, 2023 – WPAC Manager in-person meeting in Camrose.
- The WPAC Technical Advisory Committee will be meeting in the upcoming month, virtually.
 - This meeting will be to discuss State of the Watershed reporting.

Alberta Lake Management Society (ALMS)

- LISC has approved the 2023 LakeWatch Proposal of 10 lakes for a total of \$50,000.

Citizen Science

2023 Winter Bird Monitoring

- To date, 7 entries from community members have been received.
- To provide an easily accessible location where beginner birders can spot different bird species, a few feeders were set up near Pontiac Park at Jesse Lake.

CreekWatch

- We are currently awaiting confirmation from the CreekWatch Coordinator on the 2023 sampling program. A proposal for the upcoming season will be brought to the Board at a later meeting date, to ensure that accurate details are reflected with any new updates.

- Please be advised that after an update received from the RiverWatch Executive Director, a 'donation' fee will be required for participation this season. This will be included in the proposal.
- Please see attached the 2022 CreekWatch Summary Report.

Community Outreach

- A few inquiries were received regarding Species at Risk in the region. I will be putting together a 'flip book' for easy reference that community members may use to reference the different species of concern in the LICA region.
- Working Well Workshop – We are looking into bringing a Working Well Workshop to the LICA region in the Fall.

Additions

- February 24-March 7 – Kayla was on vacation,
- March 9 – Cenovus Caribou Restoration Project Presentation,
- March 13 – University of Alberta, Excel Level 2 Course,
- March 14 – Muriel Lake Basin Management Society Meeting,
- March 21 – LICA Staff Meeting,
- March 23 – LICA Board of Directors Meeting.

*Kayla Hellum,
LICA, Environmental Coordinator*

2022 CreekWatch Water Quality Monitoring Results

3/15/2023

LICA Citizen Science



LICA Environmental Stewards

Contents

Background.....3
Methods:..... 3
Sample Site Characteristics:..... 5
Muriel Creek 15
Muriel Creek 25
Jackfish Creek6
Results: Muriel Creek 1 9
Dissolved Oxygen.....9
Ammonia Nitrogen10
Phosphorous.....11
pH.....11
Chloride12
Turbidity.....12
Muriel Creek 213
Results: Jackfish Creek 13
Dissolved Oxygen.....13
Ammonia Nitrogen13
Phosphorous.....14
pH.....14
Chloride15
Turbidity.....16
.....16
Conclusion..... 16
Thank you to our CreekWatch volunteers!.....17
References 18

Table of Tables

Table 1. Water quality parameters of interest. 3
 Table 2. The number of sampling events and the total number of volunteer hours for 2022 CreekWatch monitoring. 4

Table of Figures

Figure 1. Volunteers conducting invertebrate sampling at Muriel Creek 1, on the June 4th training day.... 4
 Figure 2. Muriel Lake Creek 1, sampled on June 4, 2022..... 5
 Figure 3. Muriel Creek 2, sampled on June 4, 2022..... 6
 Figure 4. Jackfish Creek, sample site 1. Outflow from Tucker Lake. Photo taken during sampling event on June 8, 2022. 7
 Figure 5. Jackfish Creek sample site 2. Photo taken during sampling event on August 10, 2022. 7
 Figure 6. Jackfish Creek sample site 3. Photo taken during sampling event on August 10, 2022. 8
 Figure 7. Jackfish Creek sample site 4. Photo taken during sampling event on June 24, 2022. 8
 Figure 8. Spatial distribution of Jackfish Creek sample sites..... 9
 Figure 9. Dissolved Oxygen levels recorded at Muriel Creek 1 during the 2022 sample season..... 10
 Figure 10. Ammonia Nitrogen (mg/L) concentrations recorded at Muriel Creek 1, during the 2022 sample season. 10
 Figure 11. Phosphorous (mg/L) concentrations recorded at Muriel Creek 1, during the 2022 sample season. 11
 Figure 12. pH levels recorded at Muriel Creek 1, during the 2022 sample season. 11
 Figure 13. Chloride (mg/L) concentrations recorded at Muriel Creek 1, during the 2022 sample season. 12
 Figure 14. Turbidity recorded at Muriel Creek 1, during the 2022 sample season..... 12
 Figure 15. Dissolved Oxygen levels observed in 2022, at 4 sample sites..... 13
 Figure 16. Ammonia Nitrogen levels observed in 2022, at 4 sample sites. 14
 Figure 17. Phosphorous levels observed in 2022, at 4 sample sites..... 14
 Figure 18. pH levels recorded at 4 sample sites along Jackfish Creek on five sample dates. 15
 Figure 19. Chloride levels recorded at 4 sample sites along Jackfish Creek on five sample dates. 15
 Figure 20. Turbidity recorded at 4 sample sites along Jackfish Creek, on five sample dates..... 16

Appendices:

- Appendix A: 2022 Muriel Creek 1 Raw Data
- Appendix B: 2022 Muriel Creek 2 Raw Data
- Appendix C: 2022 Jackfish Creek Raw Data
- Appendix D: 2022 Invertebrate Raw Data

Background

CreekWatch is a Citizen Science program by the non-profit RiverWatch Institute of Alberta. CreekWatch connects communities with science and stewardship relevant to their local natural areas and streams of interest. Since 2014, CreekWatch has worked with corporate and community volunteers to collect water quality data, improve habitat, and contribute to a meaningful understanding of the management of our local waterways (RiverWatch Institute of Alberta, 2023).

In 2021, LICA partnered with CreekWatch to conduct community water quality monitoring at an unnamed Creek flowing into Muriel Lake. With volunteers from Muriel Lake Basin Management Society (MLBMS), this Creek was monitored to support their ongoing initiatives to determine the quality of water flowing into Muriel Lake. Muriel Lake has been facing declining water levels and fish spawning habitat, in addition to water quality issues (MLBMS, 2023).

Following the success of the 2021 monitoring season, LICA decided to expand the CreekWatch program to include two additional Creeks to complement the CreekWatch monitoring efforts completed in 2021. In 2022, a second unnamed Creek flowing into Muriel Lake was sampled by the Muriel Lake Basin Management Society, and Jackfish Creek which flows from Tucker Lake to the Beaver River was sampled by additional community volunteers. The 2021 CreekWatch report can be found on the [LICA website](#).

Methods:

Data recorded during the 2022 summer sampling program was collected utilizing the CreekWatch Citizen Science water quality monitoring kits. The following parameters were assessed:

Table 1. Water quality parameters of interest.

Water Quality Parameters	
Physics	Air Temperature (°C)
	Water Temperature (°C)
	Turbidity (NTU)
Chemistry	Dissolved Oxygen (mg/L)
	Ammonia Nitrogen (mg/L)
	Phosphorous (mg/L)
	pH
	Chloride (mg/L)
Biology	Invertebrates

Each parameter has a sampling protocol and instructions for analysis, with pre-packed chemistry kits. Community volunteers were trained on the sampling protocol and safe handling of sampling equipment. Sample equipment for the CreekWatch program was provided by the Riverwatch Institute of Alberta. Sampling kits are housed at the LICA office.

Table 2. The number of sampling events and the total number of volunteer hours for 2022 CreekWatch monitoring.

Item	Amount
Number of Sampling Events at Muriel Creek 1	8
Number of Sampling Events at Muriel Creek 2	2
Number of Sampling Events at Jackfish Creek	5
Total Number of Volunteer Hours	121

Muriel Creek was monitored to determine the quality of water flowing into Muriel Lake. With multiple sampling events, this data will be used to determine if seasonal variability plays a role in the concentration of the water quality parameters that are assessed: *Is there a relationship between the concentration of the water quality parameter and the time of year?*

Due to low stream flow at Muriel Creek 2, only Muriel Creek 1 will be analysed to answer the above-noted question.

Jackfish Creek was monitored to determine the relationship between parameter concentration and the spatial distribution of the sample sites: *Does stream health decrease downstream?*

Invertebrate sampling could not be used to draw conclusions, as not all sample sites could have the sampling performed at each sampling event. See *Appendix D* for a list of invertebrates found at select sample sites.



Figure 1. Volunteers conducting invertebrate sampling at Muriel Creek 1, on the June 4th training day.

Sample Site Characteristics:

Muriel Creek 1

Muriel Creek 1 is located on the south side of Muriel Lake (54.103387, -110.616030). The surrounding land use is made up of natural land, infrastructure (roads), industry, and is used for recreational purposes. In the riparian health assessments completed by Fiera Biological Consulting (2021), this creek was found to have high riparian intactness and is of high conservation priority. Located at this sample location, ATV use is prevalent resulting in a decrease in vegetation cover and a disturbance to the natural land.



Figure 2. Muriel Lake Creek 1, sampled on June 4, 2022.

Muriel Creek 2

Muriel Creek 2 is located on the East side of Muriel Lake (54.163455, -110.605832). This unnamed creek flows north of the Beaumeaux subdivision, being the second-largest creek that flows into Muriel Lake. This creek has the surrounding land uses of agriculture, industry, infrastructure (roads), residence and natural lands. The sample site is located near a culvert that flows under HWY 657. Due to low water flow, this creek was only sampled 2 times during the 2022 season.



Figure 3. Muriel Creek 2, sampled on June 4, 2022.

Jackfish Creek

Jackfish Creek was the third creek sampled in 2022. Four sample sites were monitored along the Creek that flows from Tucker Lake to the Beaver River. This Creek was chosen as it was found to have various changing land uses that surround the creek and decreased riparian area/ shoreline health. The Creek is approximately 131.4 km long, 16% is rated very low/low for shoreline intactness and 84% is rated moderate to high intactness (Fiera Biological Consulting, 2021). The surrounding land uses include agriculture, industry, infrastructure (roads), residence and natural land (forested).

Jackfish Creek Sample Site 1: Outflow of Tucker Lake

Jackfish Creek sample site 1 is located on the west side of Tucker Lake, as the outflow of the lake and the start of Jackfish Creek, (54.532445, -110.645658). This sample site was monitored north of the Tucker Lake Trail near the rock weir.



Figure 4. Jackfish Creek, sample site 1. Outflow from Tucker Lake. Photo taken during sampling event on June 8, 2022.

Jackfish Creek Sample Site 2

Jackfish Creek sample site 2 is located south of sample site 1 near Township Road 640 (54.500626, -110.669768). Between sample sites 1 and 2, this creek flows through natural forested land. This sample site was located on the north side of the gravel road (Twp 640).



Figure 5. Jackfish Creek sample site 2. Photo taken during sampling event on August 10, 2022.

Jackfish Creek Sample Site 3

Jackfish Creek sample site 3 is located at HWY 55, west of Range Road 53 (54.442271, -110.686434). From sample sites 2 to 3, this creek travels through/near the following land uses; agriculture, industry, infrastructure, residential and natural landforms. This sample site was located south of the HWY 55 bridge.



Figure 6. Jackfish Creek sample site 3. Photo taken during sampling event on August 10, 2022.

Jackfish Creek Sample Site 4

Jackfish Creek sample site 4 is located at Range Road 51A and is the last point before entering the Beaver River (54.417146, -110.637653). From sample sites 3 to 4, this Creek flows primarily through livestock and agricultural land uses. This creek was sampled on the east side of the RR 51A bridge.



Figure 7. Jackfish Creek sample site 4. Photo taken during sampling event on June 24, 2022.

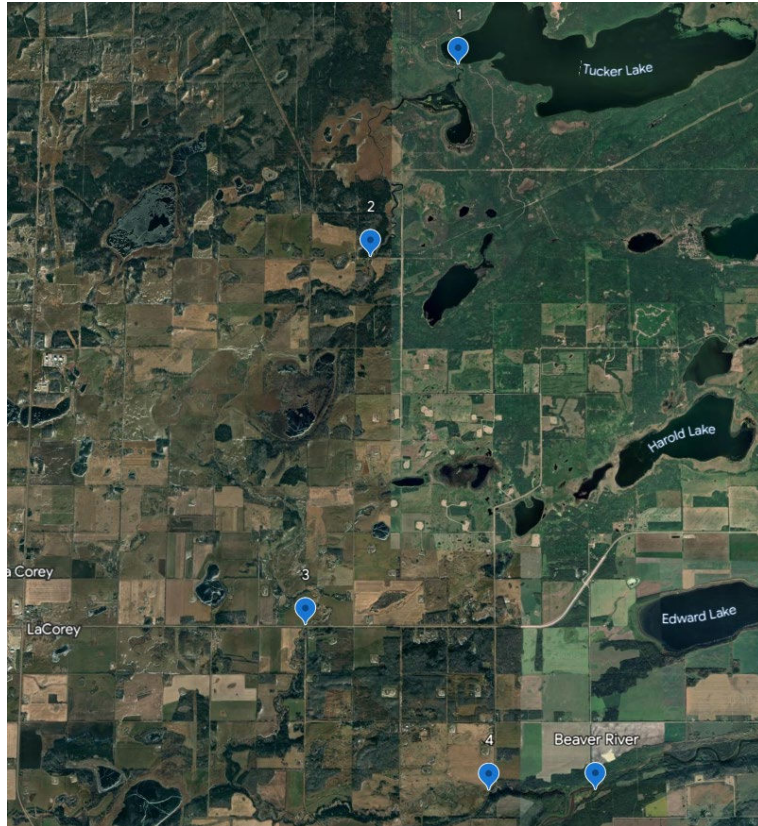


Figure 8. Spatial distribution of Jackfish Creek sample sites.

Results: Muriel Creek 1

Dissolved Oxygen

Dissolved oxygen was found to be the greatest at the first sample date; June 4, 2022. The lowest recorded level of dissolved oxygen was recorded on August 18, 2022. According to the Environmental Quality Guidelines for Alberta Surface Waters (2018), the short-term allowance for the protection of freshwater aquatic life is 5 mg/L. Data collected on August 18th and September 12th show 2 mg/L and 4 mg/L, respectively, indicating that the creek had levels of dissolved oxygen that were not within the allowable limit to support freshwater aquatic life. Throughout the sampling season from June to September, the dissolved oxygen levels did appear to decline (*Figure 9*).

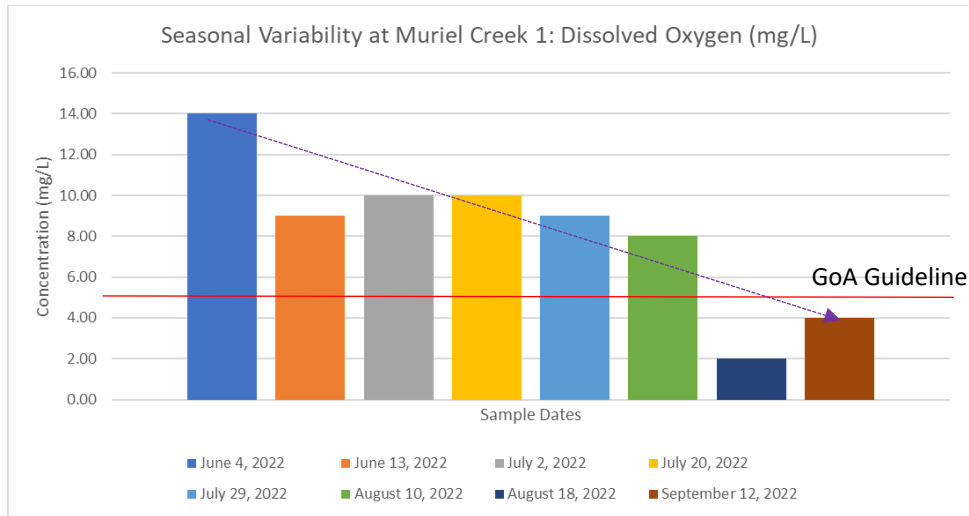


Figure 9. Dissolved Oxygen levels recorded at Muriel Creek 1 during the 2022 sample season.

Ammonia Nitrogen

According to the Environmental Quality Guidelines for Alberta Surface Waters (2018), allowable levels of ammonia nitrogen may not exceed 1.0 mg/L at pH 8, 10°C. There was a fluctuation in the ammonia nitrogen found at Muriel Creek 1 throughout the season. Although, all recorded data is below the threshold of 1.0 mg/L. The highest concentration of 0.5 mg/L was recorded on June 4th, with relatively consistent levels throughout the season at ~0.25 mg/L. Comparative to the first data recording, the last one on September 12 was 0.4 mg/L.

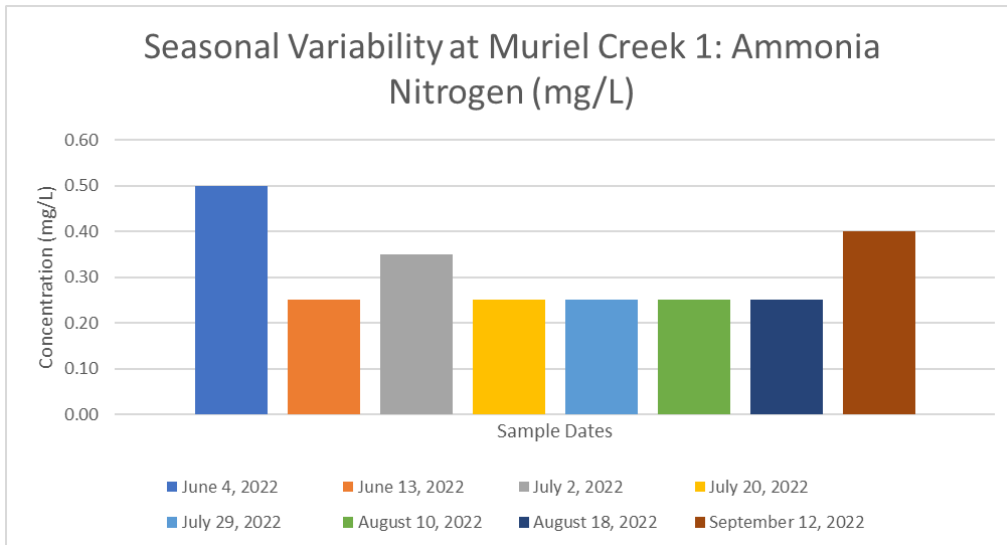


Figure 10. Ammonia Nitrogen (mg/L) concentrations recorded at Muriel Creek 1, during the 2022 sample season.

Phosphorous

Phosphorous concentrations were found to be the greatest on June 4th, with a noticeable decrease by July sample dates. On September 12th a phosphorous concentration of 0 was recorded. See *Appendix A* for the raw data collected.

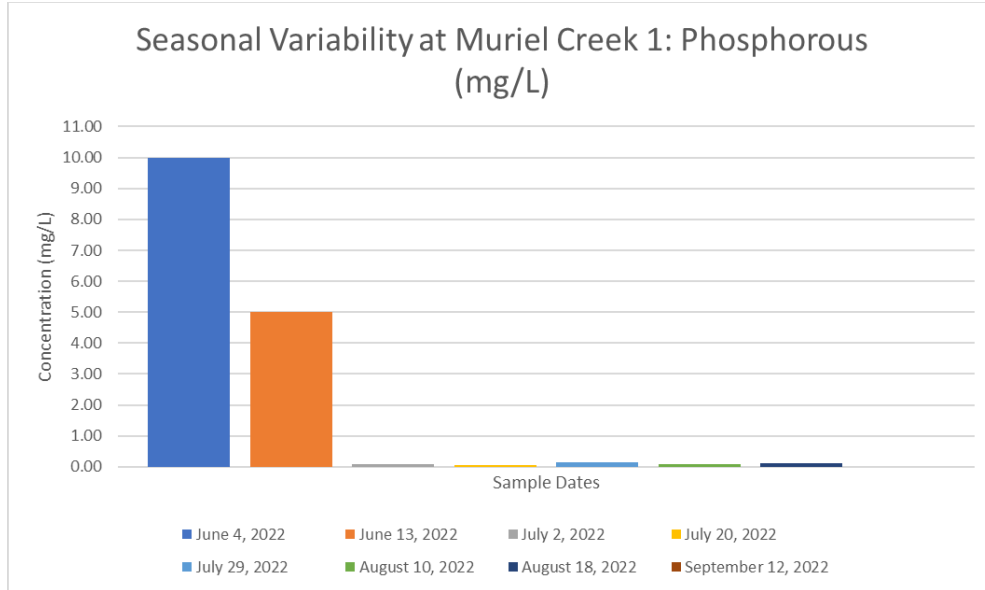


Figure 11. Phosphorous (mg/L) concentrations recorded at Muriel Creek 1, during the 2022 sample season.

pH

The Environmental Quality Guidelines for Alberta Surface Waters (2018) for exceedance is a pH value outside the range of 6.5 - 9. All pH data collected falls within this range with the most alkaline value being observed on July 29, 2022, with a value of 8.5, and the most neutral observation being recorded on August 18 and September 12 with a value of 7.5.

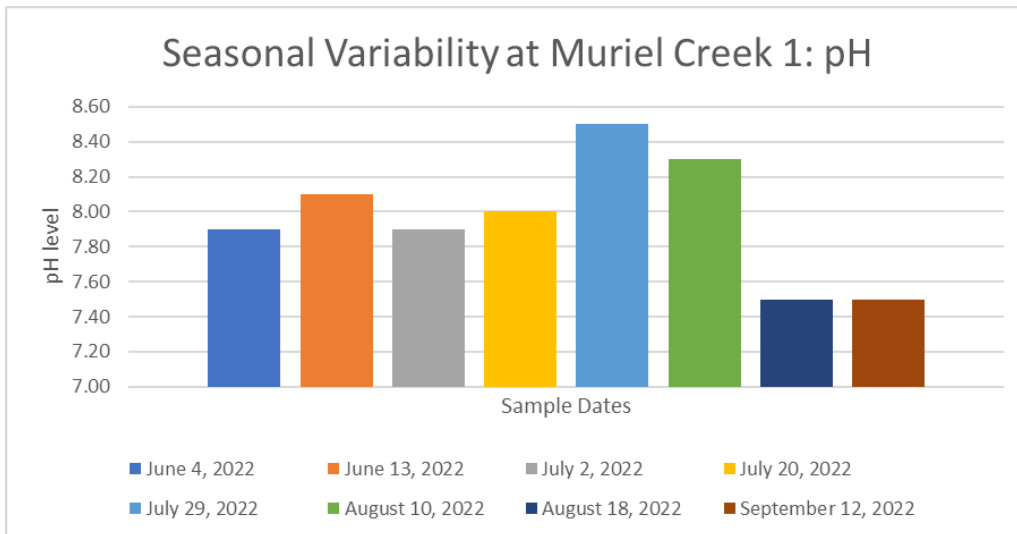


Figure 12. pH levels recorded at Muriel Creek 1, during the 2022 sample season.

Chloride

Chloride concentrations were found to vary throughout the sampling season, with the lowest recorded value on June 13, 2022. Four sample events recorded 25 mg/L, being the highest recorded level (Figure 13). The Environmental Quality Guidelines for Alberta Surface Waters (2018), is a maximum of 120 mg/L. All data recorded falls within the guidelines.

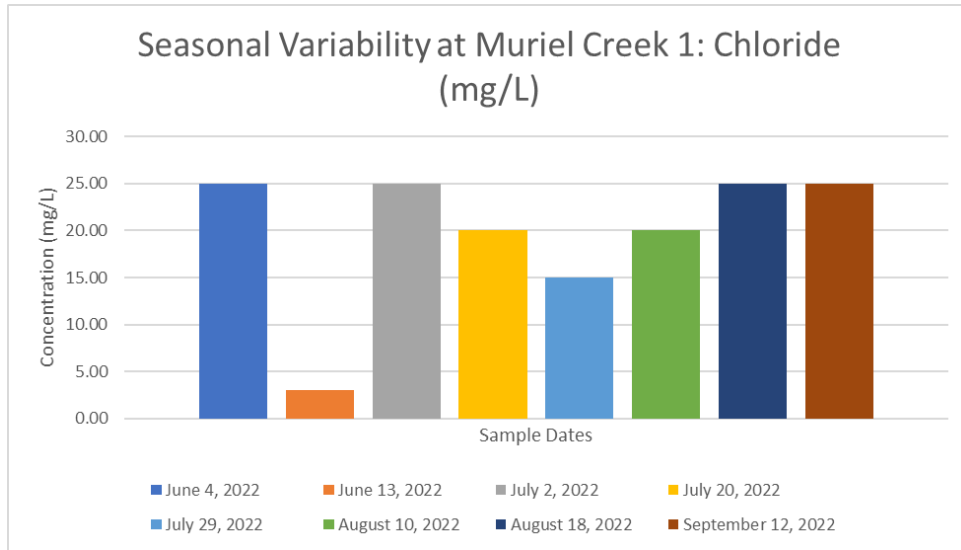


Figure 13. Chloride (mg/L) concentrations recorded at Muriel Creek 1, during the 2022 sample season.

Turbidity

Turbidity was measured to determine the level of suspended matter within the Creek. The Creek was recorded to be most turbid on August 18, 2022, and clarity was consistent in July and September sample dates. A turbidity value of 0 was recorded during the June sample dates and on August 10th.

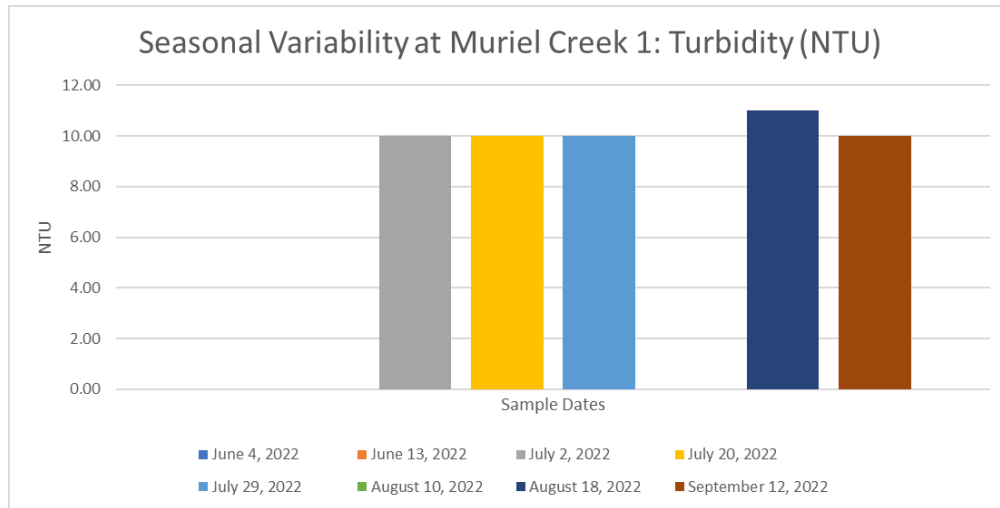


Figure 14. Turbidity recorded at Muriel Creek 1, during the 2022 sample season.

Muriel Creek 2

Water quality data collected at Muriel Creek 2 was limited as there was only water flow in June. Due to this, comparative graphing was not completed. Please see *Appendix B* for the raw data collected.

Results: Jackfish Creek

Dissolved Oxygen

Jackfish Creek sample sites 1-4 were found to have varying levels of dissolved oxygen (DO). Overall, it is concluded that sample site 1, located at Tucker Lake, was found to have the highest recorded levels of DO, with levels decreasing downstream. According to the Environmental Quality Guidelines for Alberta Surface Waters (2018), the short-term allowance for the protection of freshwater aquatic life is 5 mg/L. On August 10, 2022, samples sites 2 and 4 documented the lowest dissolved oxygen levels of the samples season with 5 mg/L of oxygen present at each site. All other values were above this threshold with the greatest level being documented on July 18, 2022, at sample site 1 with 14 mg/L recorded. Figure 15 illustrates the findings of dissolved oxygen, during the 2022 sample season. Refer to *Appendix C* for the raw data collected.

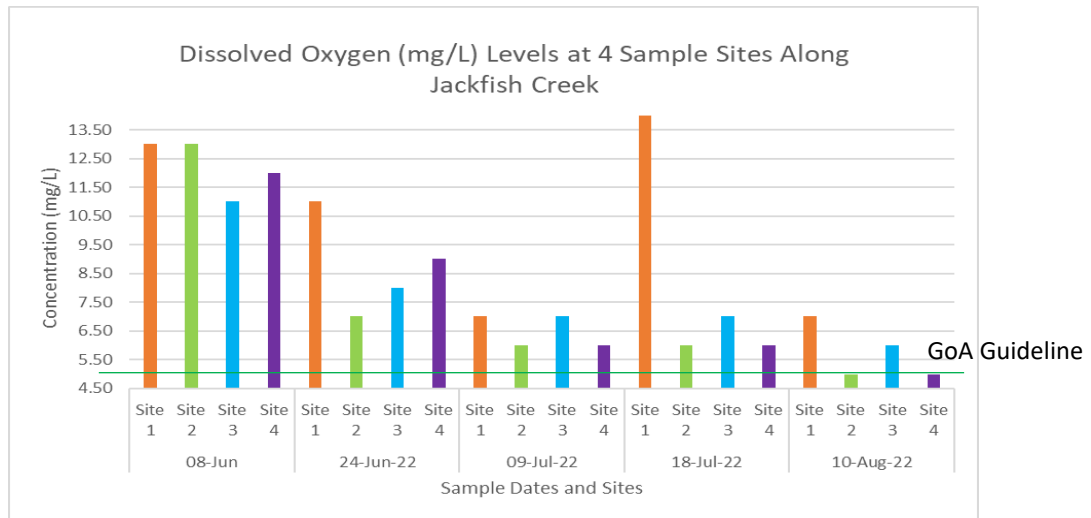


Figure 15. Dissolved Oxygen levels observed in 2022, at 4 sample sites.

Ammonia Nitrogen

Varying levels of Ammonia Nitrogen were found between the four sample locations along Jackfish Creek. According to the Environmental Quality Guidelines for Alberta Surface Waters (2018), allowable levels of Ammonia Nitrogen may not exceed 1.0 mg/L at pH 8, 10°C. All levels were found to be below 1 mg/L with the exception of sample site 1 sampled on July 18, 2022. There are no trends identified that would suggest an increase or decrease in concentration in relation to the spatial distribution of the sample sites (Figure 16).

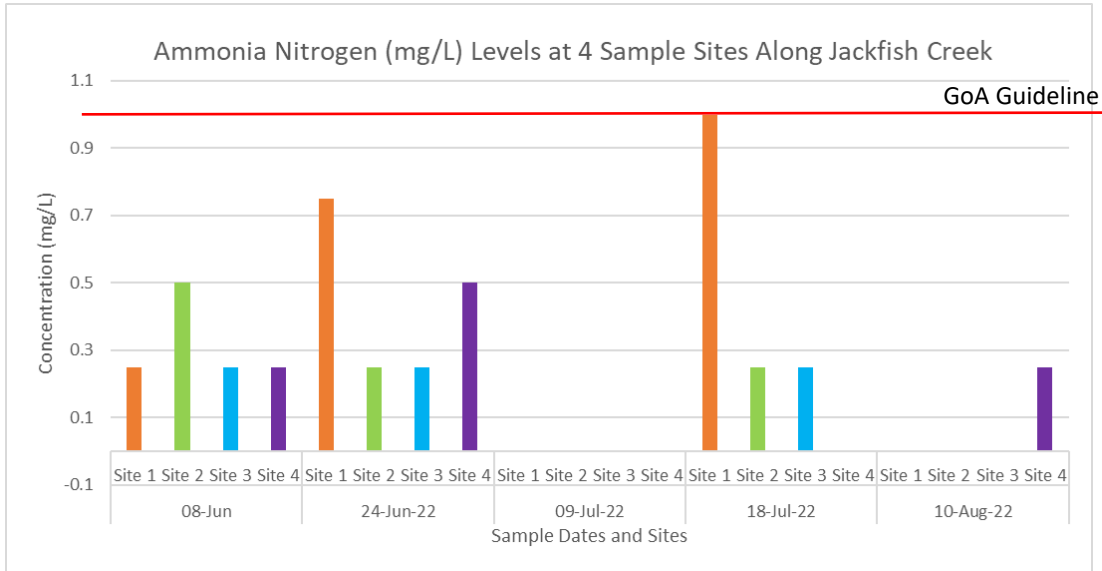


Figure 16. Ammonia Nitrogen levels observed in 2022, at 4 sample sites.

Phosphorous

Phosphorus concentrations were recorded as 0 for all sample sites tested on June 24, 2022. During three sample events, Phosphorus was found to be in slightly greater concentrations further downstream (Figure 17), and during one sample event, site 4 was found to have no concentration of phosphorus detected where the other three sites did (refer to Appendix C for raw data).

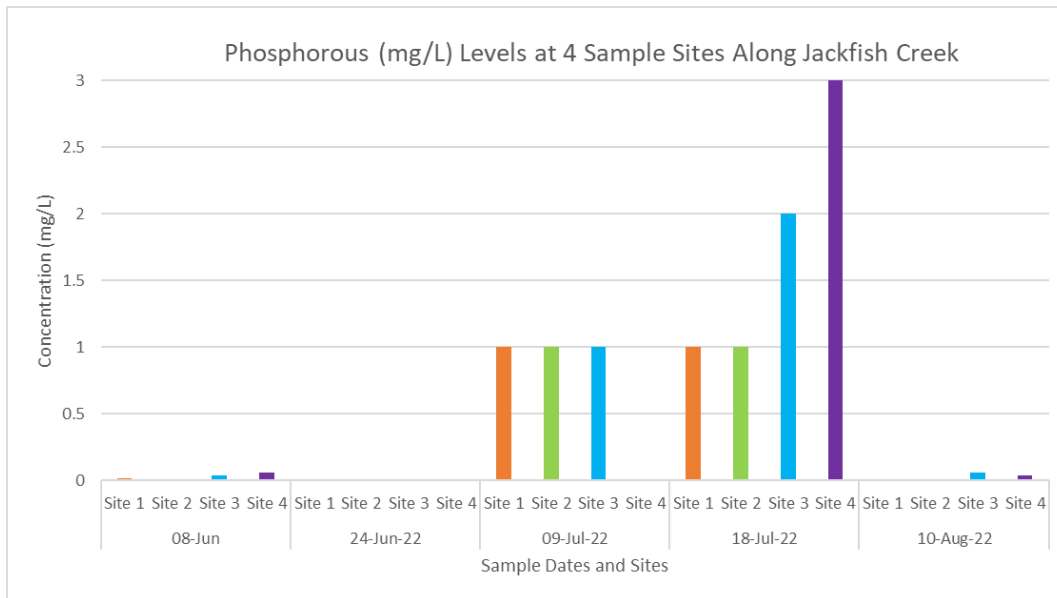


Figure 17. Phosphorous levels observed in 2022, at 4 sample sites..

pH

pH levels differed between sites and sample events, although all remained within the Environmental Quality Guidelines for Alberta Surface Waters (2018) value range of 6.5-9. See Figure 18.

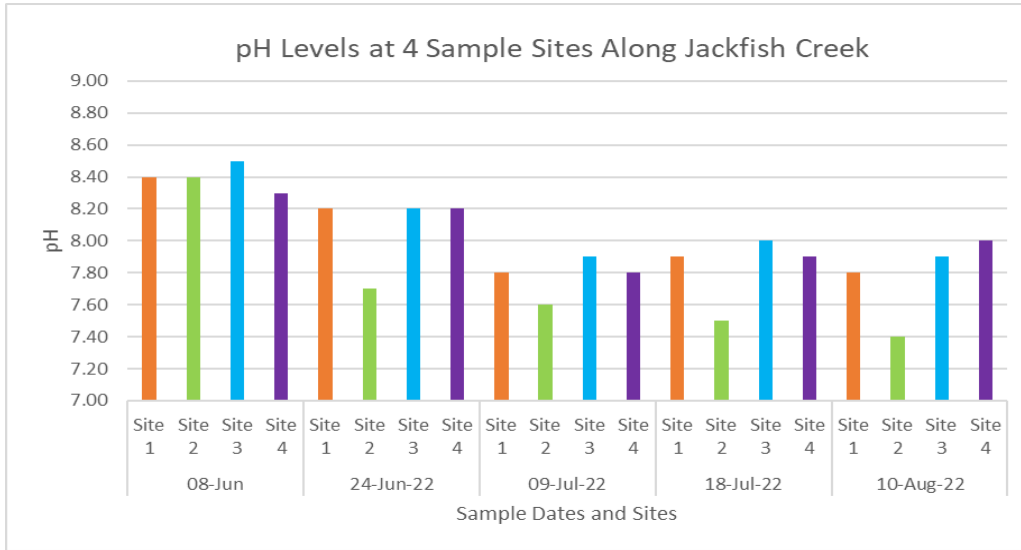


Figure 18. pH levels recorded at 4 sample sites along Jackfish Creek on five sample dates.

Chloride

Chloride was found to vary between sample locations and sample dates. A conclusion cannot be drawn to infer that chloride concentrations found within the Creek increase or decrease based on downstream locations (Figure 19). The Environmental Quality Guidelines for Alberta Surface Waters (2018), is a maximum of 120 mg/L. The greatest recorded level of Chloride found in Jackfish Creek was recorded at site 1, on June 8, 2022, with a concentration level of 25 mg/L.

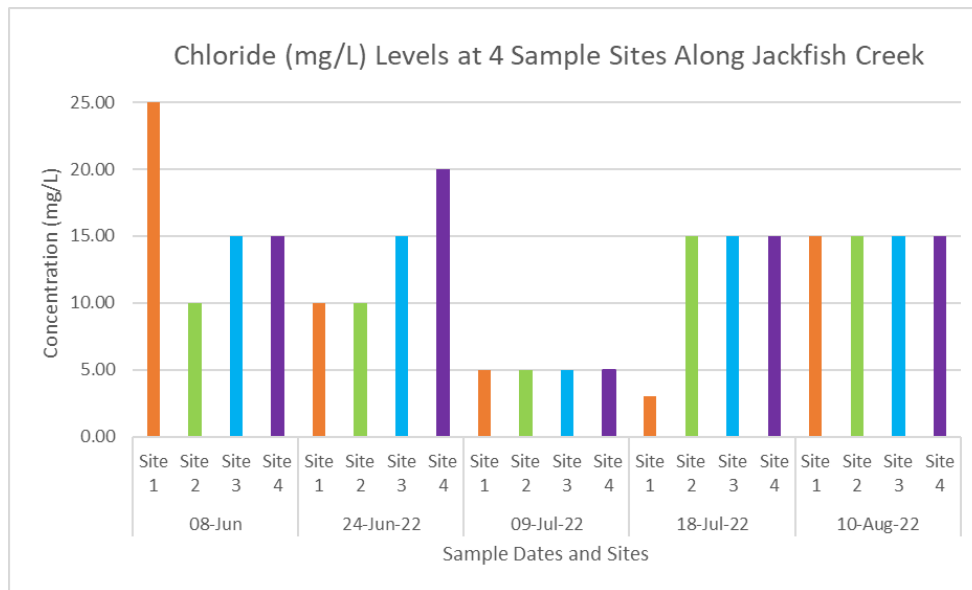


Figure 19. Chloride levels recorded at 4 sample sites along Jackfish Creek on five sample dates.

Turbidity

Turbidity was measured to determine the level of suspended matter within the creek. It was found that the water turbidity increased downstream with the highest levels recorded at sample sites 3 & 4 (Figure 20).

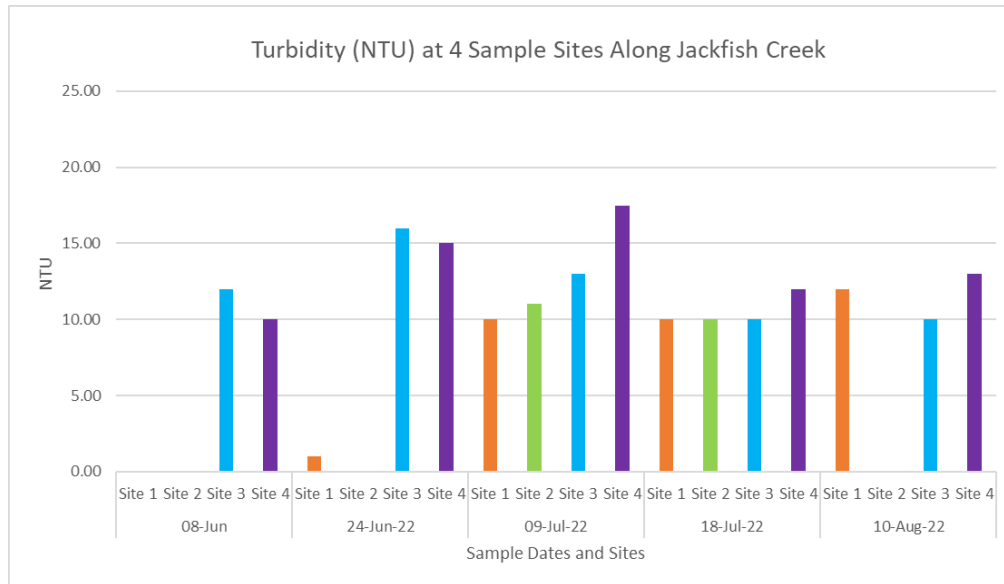


Figure 20. Turbidity recorded at 4 sample sites along Jackfish Creek, on five sample dates.

Conclusion

A variety of factors may have influenced the accuracy of the water quality data collected, they are but not limited to; sampler experience, unforeseen variance in sampling protocol, field sampling (not conducted in a controlled lab), weather, etc. CreekWatch is a Citizen Science program where all tests are conducted in the field, by volunteers. Analysis was not completed at a lab.

Muriel Creek was sampled to show a relationship between the parameter concentration level and seasonal variability. Muriel Creek 1 was sampled 8 times during the 2022 season. Dissolved oxygen and phosphorous were found to decrease from June – September. But Ammonia Nitrogen, pH, and Chloride did not appear to be subject to seasonal variability. Although water turbidity was higher at a few sample times throughout the season, it is not anticipated that this is linked to the season and is likely due to an outside event.

Jackfish Creek was monitored to show a relationship between the concentration of select water quality parameters and the spatial distribution of the sample sites. The water quality did appear to decrease further downstream in terms of 1) Dissolved oxygen; found to be in a lower amount during three sample events downstream, 2) Phosphorus, as concentrations were at a slightly greater amount downstream, and 3) Turbidity; as the water became more turbid the further downstream. Ammonia Nitrogen and Chloride were not found to show a relationship between concentration level and spatial distribution of the sample sites.

It is recommended that the data collected should be used to form additional water monitoring programs that undergo lab analysis.

Thank you to our CreekWatch volunteers!

CreekWatch with LICA is made possible by our amazing volunteers who gave countless hours to monitor the water quality of these creeks in the LICA region. Thank you to the RiverWatch Institute of Alberta for providing the sampling equipment to enable LICA to take part in this program! LICA is proud of another great season of water quality data monitoring with our volunteers!

John Illchuk
Terri Kutt
Paul St.Amant
Richard Bourgeois
Alyssa Hellum
Salum Katala
Evelyn Mondares
Tina Gladu
Tina Johnson
Mary Bourgeois
Brenda Midgely
Sharon Johnston
Max Johnston
Keatyn Bowen
Parker Harrison

Peter Cordingley
Louise White-Gibbs
Miranda Zuk
Scott Iron
Kurt Franklin
Eveline Hartog
Don Midgely
Beverly Wilson
Craig Holder
Jeff Hlewka
Jenson Kelly
Seb Kelly
Marley Johnston
Denise Bowen



References

- Fiera Biological Consulting Ltd. 2021. Jackfish-Muriel Creeks Watershed Riparian Area Assessment. Report #2044. Prepared for the Lakeland Industry & Community Association, Athabasca, Alberta. Pp. 128.
- Government of Alberta. 2018. Environmental Quality Guidelines for Alberta Surface Waters. Water Policy Branch, Alberta Environment and Parks. Edmonton, Alberta.
- Muriel Lake Basin Management Society. 2023. Available from Save Muriel Lake, Muriel Lake Basin Management Society: <http://www.savemuriellake.com/> [accessed March 14, 2023].
- The RiverWatch Institute of Alberta. 2023. Stewards of our Waterways, CreekWatch. Available from CreekWatch Tributary Stormwater Monitoring: <https://creekwatch.ca/#about> [accessed March 14, 2023].

Appendix A: 2022 Muriel Creek 1 Raw Data

Parameters		Muriel Creek 1 - 2022 Raw Data									
		4-Jun-22	13-Jun-22	2-Jul-22	20-Jul-22	29-Jul-22	10-Aug-22	18-Aug-22	12-Sep-22		
Physics	Air Temperature (c)	22.00	-	20.40	23.20	25.00	17.20	21.50	11.00		
	Water Temperature (c)	16.60	22.30	16.40	21.70	21.10	18.20	17.50	10.50		
	Turbidity (NTU)	0.00	0.00	10.00	10.00	10.00	0.00	11.00	10.00		
	Dissolved Oxygen (mg/L)	14.00	9.00	10.00	10.00	9.00	8.00	2.00	4.00		
Chemistry	Ammonia Nitrogen (mg/L)	0.50	0.25	0.35	0.25	0.25	0.25	0.25	0.40		
	Phosphorous (mg/L)	10.00	5.00	0.08	0.05	0.14	0.10	0.12	0.00		
	pH	7.90	8.10	7.90	8.00	8.50	8.30	7.50	7.50		
	Chloride (mg/L)	25.00	3.00	25.00	20.00	15.00	20.00	25.00	25.00		

Appendix B: 2022 Muriel Creek 2 Raw Data

Parameters		Muriel Creek 2 - 2022 Raw Data	
		04-Jun-22	13-Jun-22
Physics	Air Temperature (c)	24.70	-
	Water Temperature (c)	18.00	22.00
	Turbidity (NTU)	0.00	0.00
Chemistry	Dissolved Oxygen (mg/L)	7.00	4.00
	Ammonia Nitrogen (mg/L)	0.50	0.50
	Phosphorous (mg/L)	0.06	8.00
	pH	8.00	12.00
	Chloride (mg/L)	20.00	3.00

Appendix C: 2022 Jackfish Creek Raw Data

		Jackfish Creek 2022 Raw Data																			
Parameters		08-Jun				24-Jun-22				09-Jul-22				18-Jul-22				10-Aug-22			
		Site 1	Site 2	Site 3	Site 4	Site 1	Site 2	Site 3	Site 4	Site 1	Site 2	Site 3	Site 4	Site 1	Site 2	Site 3	Site 4	Site 1	Site 2	Site 3	Site 4
Physics	Air Temperature (c)	20.90	21.80	20.30	23.50	18.40	17.20	18.50	18.40	17.20	19.90	20.20	18.70	26.60	26.40	25.90	26.80	24.00	23.50	21.80	21.30
	Water Temperature (c)	18.00	20.40	20.00	19.30	17.20	16.00	16.50	16.50	18.80	22.50	21.50	18.60	23.50	24.00	23.60	22.80	21.50	18.90	18.50	17.80
	Turbidity (NTU)	0.00	0.00	12.00	10.00	1.00	0.00	16.00	15.00	10.00	11.00	13.00	17.50	10.00	10.00	10.00	12.00	12.00	0.00	10.00	10.00
Chemistry	Dissolved Oxygen (mg/L)	13.00	13.00	11.00	12.00	11.00	7.00	8.00	9.00	7.00	6.00	7.00	6.00	14.00	6.00	7.00	6.00	7.00	5.00	6.00	5.00
	Ammonia Nitrogen (mg/L)	0.25	0.50	0.25	0.25	0.75	0.25	0.25	0.50	0.00	0.00	0.00	0.00	1.00	0.25	0.25	0.00	0.00	0.00	0.00	0.25
	Phosphorous (mg/L)	0.02	0.00	0.04	0.06	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	3.00	0.00	0.00	0.06	0.04
	pH	8.40	8.40	8.50	8.30	8.20	7.70	8.20	8.20	7.80	7.60	7.90	7.80	7.90	7.50	8.00	7.90	7.80	7.40	7.90	8.00
	Chloride (mg/L)	25.00	10.00	15.00	15.00	10.00	10.00	15.00	20.00	5.00	5.00	5.00	5.00	3.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00

Appendix D: 2022 Invertebrate Sampling Raw Data

2022 CreekWatch Water Quality Monitoring Results

Creek	Sample Date	Invertebrate Type														Notes
		Mayfly Nymph (PT)	Stonely Nymph (PT)	Amphipods (MPT)	Leech (PT)	Snail (PT)	Damselfly Nymph (PT)	Water boatman	Bristleworm (PT)	Midge Larva (PT)	Blackfly Larva (PT)	Small Fishz				
Muriel Creek 1	04-Jun	0	0	4	0	0	0	0	0	0	4	0	0	0		
	13-Jun	0	0	1	0	0	1	0	0	0	5	5	15	1		
	02-Jul	1	0	2	0	0	1	0	0	0	0	0	0	0		
	20-Jul	1	0	18	3	0	0	2	0	0	0	0	0	0		
	29-Jul	2	0	8	0	0	0	1	0	0	0	0	0	0		
	10-Aug	1	1	12	6	1	0	0	0	0	0	0	0	0		
	18-Aug															
	12-Sep															
	Totals	5	1	45	9	1	2	3	9	5	15	1			Not sampled	
	04-Jun	0	0	7	0	0	20	0	0	10	0	0				
Totals	0	0	7	0	0	20	0	0	10	0	0					
SS1	08-Jun	0	0	50	0	0	1	2	0	0	0			Not sampled		
SS2	08-Jun	0	0	2	0	0	0	0	2	0	0			Not sampled		
Jackfish Creek	24-Jun														Not sampled	
	09-Jul														Not sampled	
	18-Jul														Not sampled	
	10-Aug														Not sampled	
Totals	0	0	52	0	0	11	0	2	2	0	0			1		

PI - Pollution Intolerant Species, MPT - Moderately Pollution Tolerant Species, PT - Pollution Tolerant Species.

1 - Not necessarily useful as indicators of water quality because the adults breathe surface air.

2 - Not an invertebrate type, just an observation

Executive Director’s Report – February and March 2023

March 16, 2023

Please consider this as my report to inform the LICA Board of Directors of the various tasks and activities undertaken over the past month in addition to my regular duties as Executive Director.

Pandemic Response Update

- The LICA office continues to adhere to the LICA [COVID-19 policy](#) which aligns with current AHS guidelines and measures.

Funding/Financials Update

- On March 8th, the [2023 ALMS LakeWatch Program Proposal](#) was approved by the LISC, to sample ten lakes within the LICA region with a total funding value of \$50,000.
- Work as well continues for both the WPAC Operating Grant and AEG Interim Reports and Schedule C Budgets. The deadline for these reporting requirements is due by April 15, 2023.
 - Final reporting for the 2019-2023 WPAC Operating Grant and the 2019-2023 AEG are due by June 30, 2023.
- Q4 OSM financial reporting will be submitted prior to the March 27th deadline. The accrual report will be submitted prior to March 31st.
- 2022-23 year-end reporting and budgeting is well underway. A final year-end financial summary report will be provided to the Board in April.
- We have received the WPAC Grant and AEG Agreements for 2023-27 and they will be signed by the Officers and submitted prior to the March 24th deadline. Please see below for the comparison in funding for 2019-23 and 2023-27:

WPAC Operating Grant Agreement

Time Frame	\$/Yr	\$/4 Yr Term	Increase in Grant Funding		
			Percentage	Per Yr	Per 4 Yr Term
2019-23	\$ 195,000	\$ 780,000	64.1026%	\$ 125,000	\$ 500,000
2023-27	\$ 320,000	\$ 1,280,000			

Airshed Engagement Grant (AEG) Agreement

Time Frame	\$/Yr	\$/4 Yr Term	Increase in Grant Funding		
			Percentage	Per Yr	Per 4 Yr Term
2019-23	\$ 38,000	\$ 152,000	52.6316%	\$ 20,000	\$ 86,000
2023-24	\$ 58,000	\$ 238,000			
2024-27	\$ 60,000	\$ 238,000			

Additional Updates:

- A training gap on the Association's budgeting process was presented for LICA staff. With the training of the two new staff, the Education and Outreach Coordinator and other Administrative Professional were trained on the budgetary processes and where to find all resources. I created the following documents and procedures to allow all staff to be well-versed and promote self-sufficiency in the budgetary process and departmental tracking requirements for the new fiscal year:
 - LICA Budgeting 101 Instruction Guide
 - This includes where to find all budget resources for forecasted and actual revenue and expenses. As well as the bookkeeping documents needed to adequately track and manage funds.
 - Admin Budget Tracking Workbook
 - This workbook links all of the GL codes the admin is responsible for managing that they frequently utilize. This workbook allows administrative staff to have a complete overview of their department and promotes efficiency in the ED and Financial Coordinator roles.
 - Includes tracking receipts from the VISA card to ensure the limit is managed by all departments that utilize it.
 - Administrative staff were debriefed on tracking petty cash as this is the admin department's responsibility in an organization. Admin will assist the other staff when they require petty cash and will balance this monthly, ensuring all receipts are included. The Financial Coordinator balances petty cash quarterly, and with the new assistance, this will ensure the Financial Coordinator's time is used efficiently.
 - Education and Outreach Budget Tracking Workbook
 - This was created to assist the E and O Coordinator with managing the departmental budget for the E and O and Community Garden GL codes. Individual spreadsheets were created and linked to a summary page to assist in balancing the forecasted and actual budgetary requirements, along with the tracking of all expenses. This is as well linked to the Financial Coordinator's Board reports for monitoring purposes.
 - E and O Volunteer and In-Kind Hours Tracking Spreadsheet
 - Unfortunately, this was not completed in the 2022-23 fiscal year, therefore a template was created to assist the current E and O Coordinator. Tracking of hours is categorized for all PR, contests, programs, events, community garden initiatives, etc., linking to the E and O Budget Tracking Workbook.
- Annual Performance Evaluations were completed for all contractors and staff, including Probationary Evaluations for the Education and Outreach Coordinator and the Administrative Professional. All contractors and staff have met or exceeded their evaluations and have completed their Professional Developmental Goals review as well.
- LICA's two contracts due for renewal are in the review process and will be renewed by March 31st. Any changes to the contracts will be reported on in-camera to the Board in April.
- The 2022-23 Strategic Plan Final Report is being finalized and will be provided to the Board in April.
- Electronic gift cards were dispersed to the Board members; avid volunteers of Creek Watch, the Community Garden, and LICA; and to staff through their performance evaluations as a small token of gratitude for the hard work and dedication they all have toward the association.
- I will be submitting an Exiting Report to the Officers, as HR information is included in the report, prior to my last day of employment.
- I would like to thank you all for the opportunity to be part of the LICA team. I have learned a lot through the successes and challenges of the role and have enjoyed working with you all!

Additional meetings attended over the past month include:

- Feb 16th – AER Operations Survey
- Feb 27th – ALUS Townhall

- March 8th – Leadership Development Series Webinar
- March 13th – ABMI (Alberta Biodiversity Monitoring Institute) Strategic Planning 2023-26 Survey
- March 16th – LICA Staff/Contract Appreciation Lunch
- March 21st – Staff Meeting

Upcoming Meeting Dates:

- March 31st – Vicky's Last Day
- April 3rd – Kristina's First Day Back
- April 18th – Staff Meeting
- April 27th – Board Meeting

Respectfully submitted,

Vicky Krawchuk, Executive Director, LICA – Environmental Stewards



EMPLOYMENT OPPORTUNITY

Summer Student

LICA is seeking a qualified secondary student to fill an exciting and dynamic Summer Student position! This position is anticipated to begin on May 1, 2023, working up to 32 hours per week (contingent on grant funding), with the opportunity of continued permanent casual (14 hrs/week) employment.

The Summer Student is responsible for assisting the Education and Outreach Coordinator and Environmental Coordinator in updating and delivering environmental education programs and carrying-out environmental stewardship initiatives within the LICA region.

KEY RESPONSIBILITIES:

1. Assist in the planning, coordination, and facilitation of:

- Environmental education and outreach initiatives including:
 - Summer youth programs
 - Classroom presentations
 - Other education and outreach activities such as contests, community events, and workshops
- Education & Outreach Committee meetings

2. Update and suggest improvements for:

- LICA website and social media content
- LICA programming

3. Projects:

- Assist with specific LICA projects, including:
 - Bonnyville Community Garden and Compost
 - Develop an invertebrate identification booklet
 - Assisting with Citizen Science programs
 - Conducting riparian restoration success analysis

4. General:

- Attend conferences/workshops as directed
- Adhere to all Board policies and procedures, including specified deadlines
- Attend meetings as requested
- Assist with other office support as required
- Provide direction to volunteers as required

QUALIFICATIONS:

- Secondary (junior high/high school student)
- Experience working with youth and children
- Strong interpersonal, communication, and presentation skills
- Strong organizational skills and the ability to coordinate multiple initiatives
- Strong computer skills, using Microsoft Office and Adobe
- Self-motivated and passionate about the environment and education
- Innovative, creative, and enthusiastic
- Flexibility in work schedule
- Valid Class 5-GDL Driver's license and access to a reliable vehicle

CONSIDERED ASSETS:

- Experience working/volunteering in the non-profit sector

For more information about LICA, visit www.lica.ca or call us at (780) 812-2182.

To apply, please submit your resume and cover letter to LICA by April 3, 2023, to:

Lakeland Industry & Community Association (LICA)

ATTENTION: Executive Director

P.O. Box 8237

Bonnyville, AB T9N 2J5

Email: executivedirector@lica.ca

(Quote "Summer Student Application" in the subject line)

We thank you for your interest; however, only those chosen for an interview will be contacted.

LICA

Aged Overdue Receivables Summary As at Mar 14, 2023

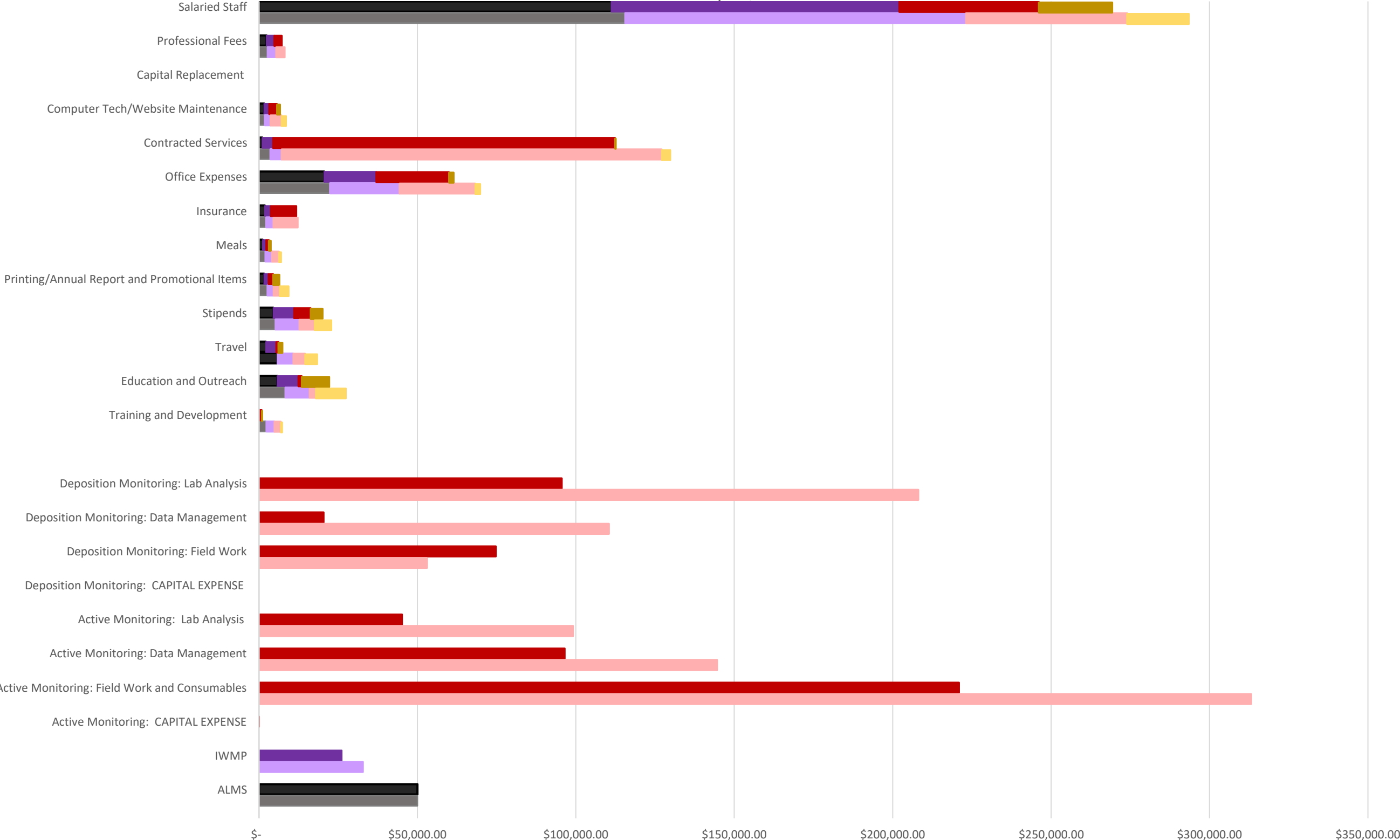
Name	Total Due	Total Current	Total Overdue	1 to 30 Overdue	31 to 60 Overdue	61+ Overdue
Baytex	3,204.16	0.00	3,204.16	0.00	0.00	3,204.16
Cenovus Energy Inc.	15,404.25	0.00	15,404.25	0.00	0.00	15,404.25
County of Two Hills	250.00	0.00	250.00	0.00	0.00	250.00
SLR Consulting (Canada)	1,050.00	0.00	1,050.00	0.00	0.00	1,050.00
Strathcona Resources Ltd	4,414.70	0.00	4,414.70	0.00	0.00	4,414.70
Total outstanding:	24,323.11	0.00	24,323.11	0.00	0.00	24,323.11

Generated On: Mar 13, 2023

Cenovus - confirmed payment for invoice 2111 will be received April 5th 2023
Cenovus - confirmed payment for invoice 2127 will be received April 16th 2023
County of Two Hills - have not heard from them. I mailed out a paper copy bill.
SLR - We set up DD with them in January. Awaiting payment confirmation.
Baytex - Awaiting payment

LICA Consolidated Finances to Date

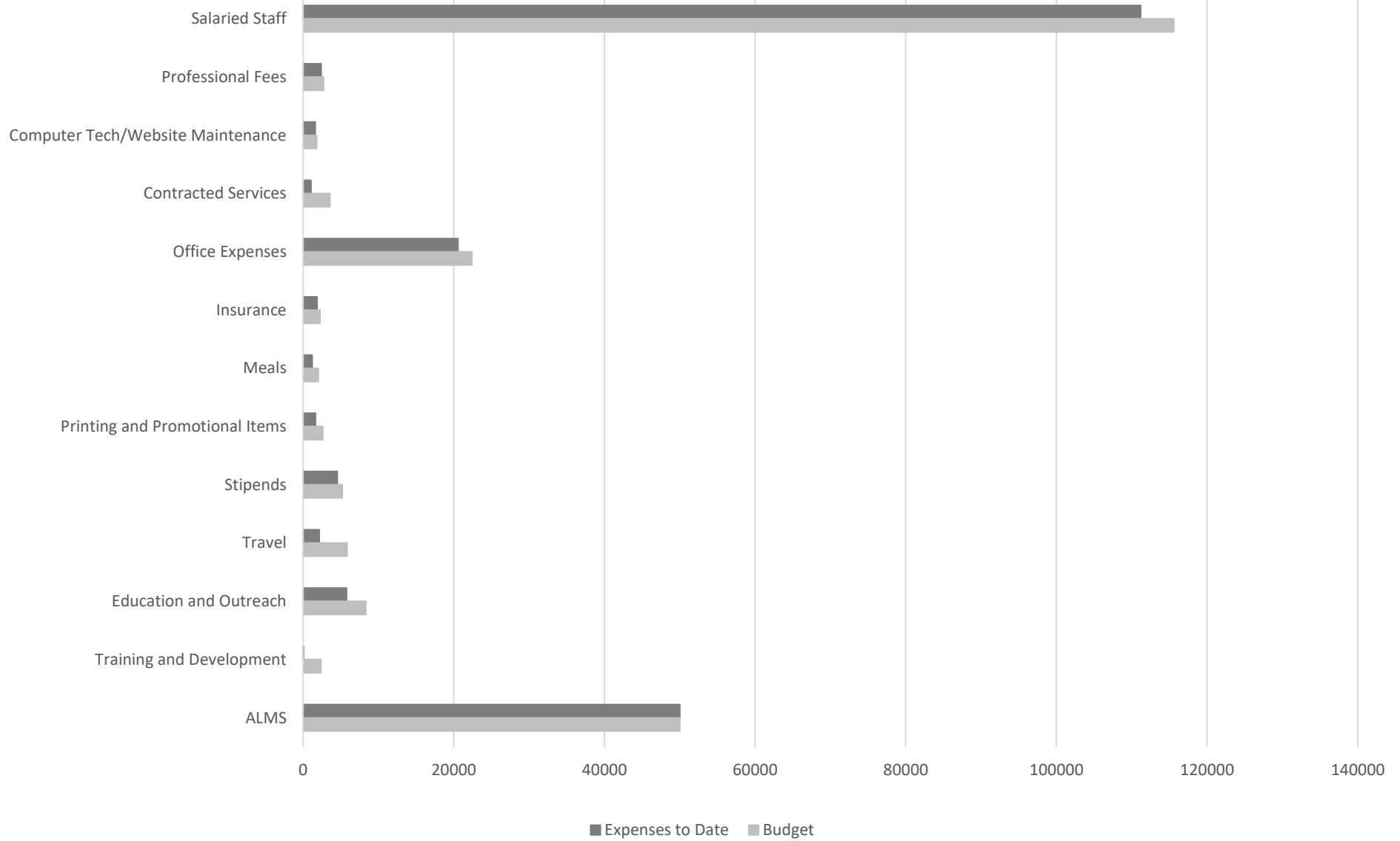
February 28, 2023



Industry and Membership Funding
 Industry and Membership Funding Budget
 WPAC Grant
 WPAC Grant Budget
 Airshed Contract
 OSM/Airshed Budget
 AEG
 AEG Budget

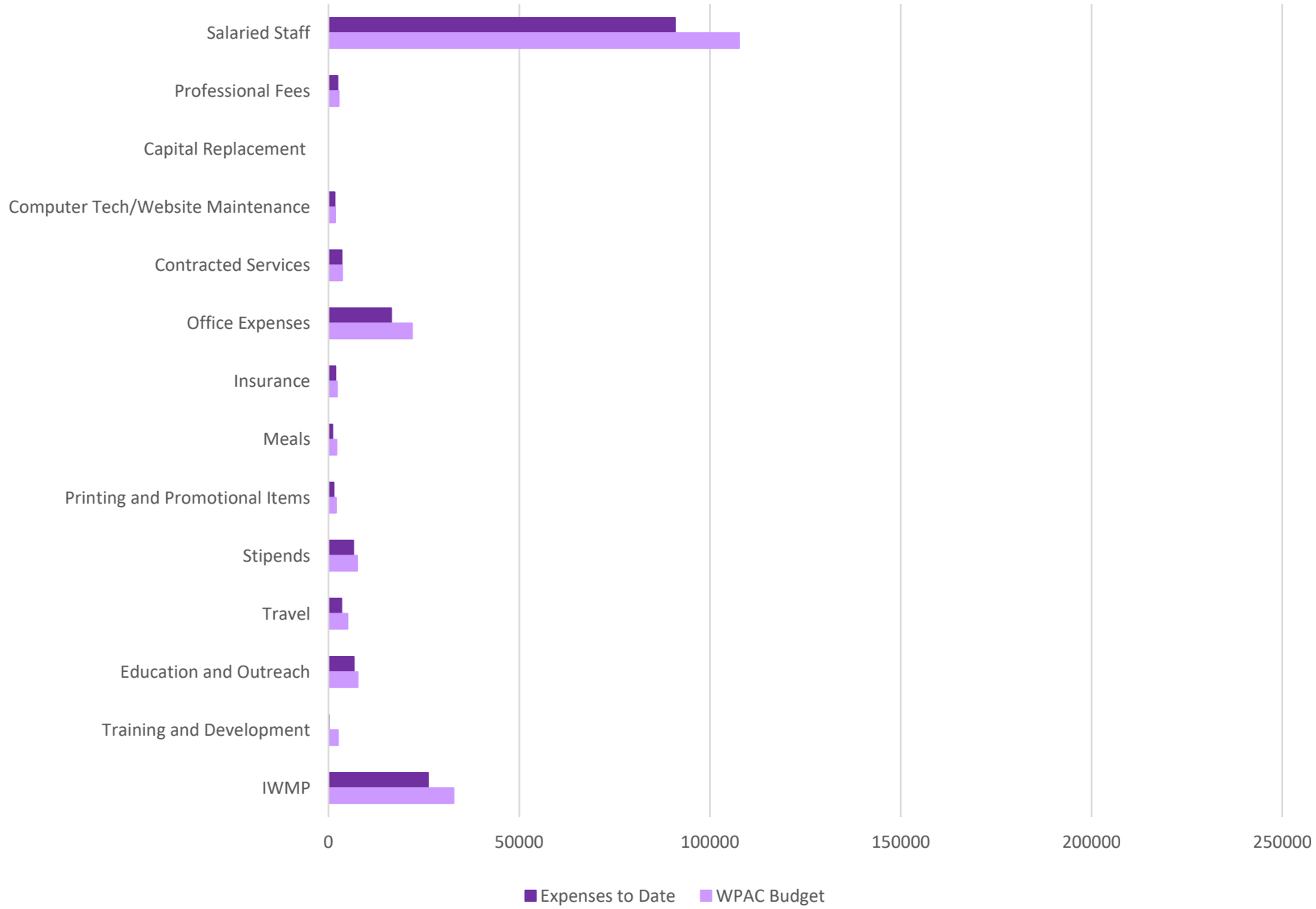
Industry and Membership Funding Expenditures to Date

February 28, 2023



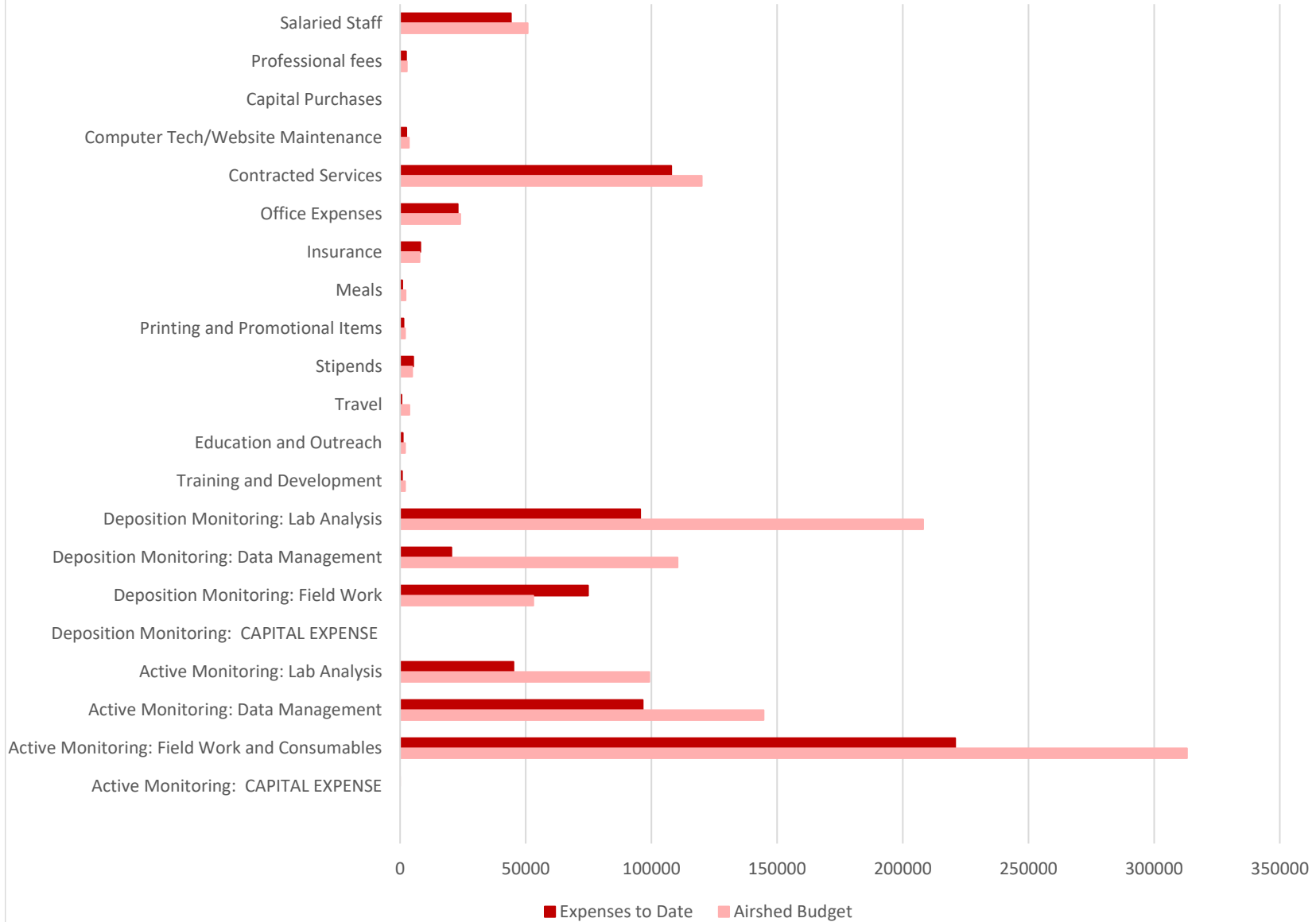
WPAC Grant Expenditures to Date

February 28, 2023



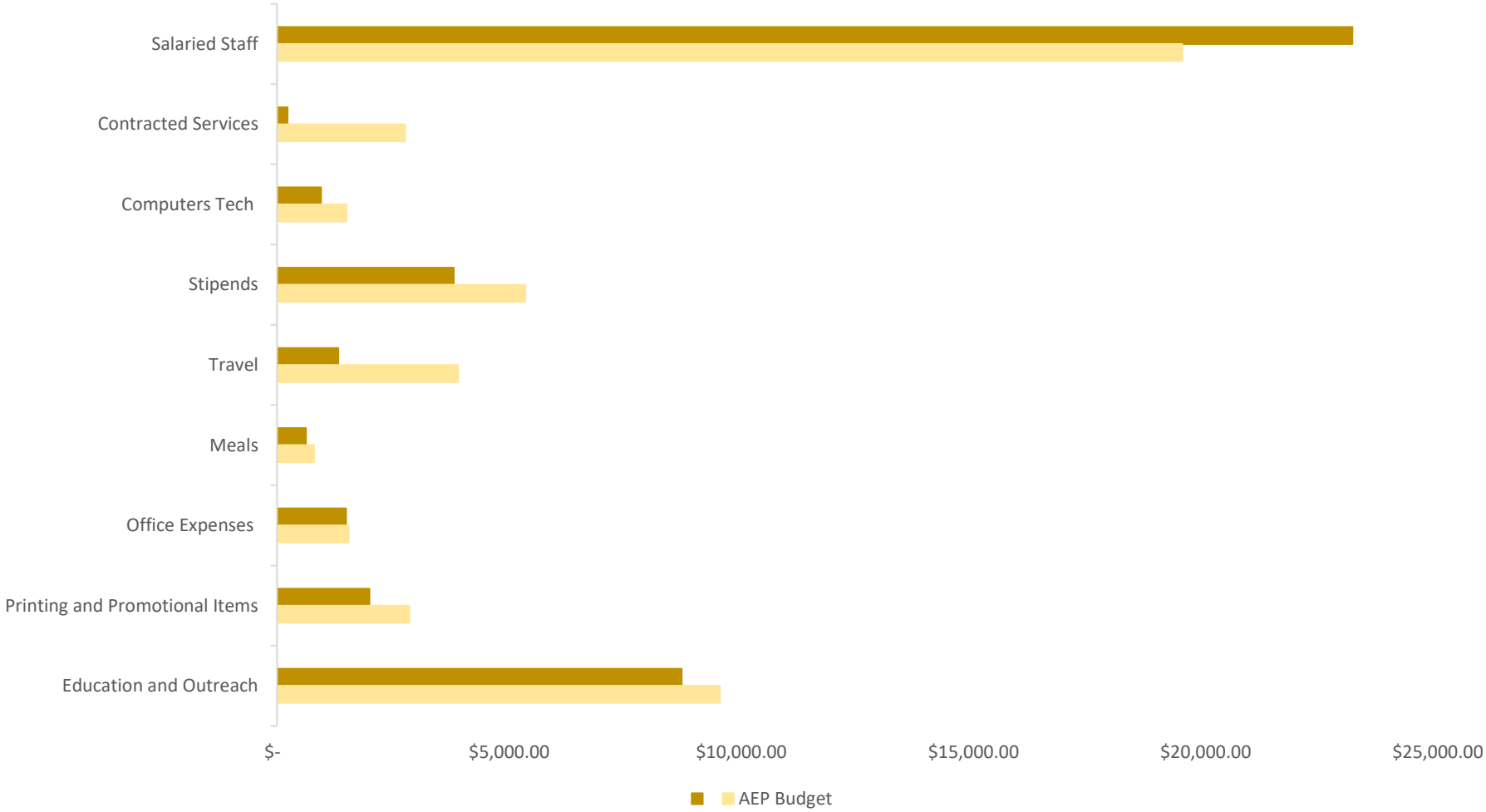
Airshed Contract Expenditures to Date

February 28, 2023



Airshed Engagement Grant

February 28, 2023



Board of Directors Meeting

ACTION LIST

Date: February 23, 2023

Recorder: Lori Jodoin

<u>Task</u>	Date to be completed	Person assigned to task	Y/N
<u>2.3 Environmental Coordinator Report</u>			
<ul style="list-style-type: none"> Complete QR codes on LICA signs on Iron Horse Trail staging areas to direct users to other LICA points of interest and to include airshed monitoring information 	Winter 2023	Kayla	IP
<u>2.3.1 Winter Bird Monitoring & Workshop Proposal</u>			
<ul style="list-style-type: none"> Share maps on social media where birds are spotted 	Winter 2023	Kayla/ Stephanie	C
<u>2.4.1.2 Youth/Student E&O Assistant Position Proposal</u>			
<ul style="list-style-type: none"> Investigate the possibility of students receiving high school credits 	Spring 2023	Admin	C
<u>2.4.1.2 WPAC Account Fraudulent Cheques</u>			
<ul style="list-style-type: none"> Financial Coordinator to follow up with bank regarding their investigation and future protection methods 	Winter 2023	Maria	C
<u>Actions Brought Forward</u>			
<ul style="list-style-type: none"> Investigate the cost of new wrap for PAMS trailer 	Tentative 2023	Mike	IP
<ul style="list-style-type: none"> Promote the Save the Soil Initiative 	Ongoing	Stephanie	C
<ul style="list-style-type: none"> Create a Community Garden Composting Plan to present to the Board for approval 	Spring 2023	Stephanie	IP
<ul style="list-style-type: none"> Signatures required on the new Blue Quills Instructional Services Agreement Renewal when it becomes available 	Spring 2023	LICA Officers	IP

Next Meeting: **March 23, 2023**