LICA
ENVIRONMENTAL STEWARDS
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TECHNICAL WORKING GROUP

Meeting Minutes
October 1, 2018 – 1:00 p.m. - 4:00 p.m.
LICA Board Room

Present:	Monty Moore Patrick Traudt Nathan Ballard Shawn Elgert
Observers and Guests:	
Staff and Contractors:	Arianne Crook, LICA Executive Director Michael Bisaga, Manager, Environmental Monitoring Programs Tina Martin, LICA Administrative Professional Colin Hanusz, Environmental Management Programs
Regrets:	Andrea Woods Megan Tilley Roger Boucher Fin MacDermid

1.0 CALL TO ORDER:

Monty Moore, Chairperson, called the meeting to order at 1:05 p.m.

1.1 Introductions and Sector Updates

1.2 Vision, Mission and Value

1.3 Approval of Agenda

#1 Moved by Patrick Traudt AND RESOLVED that the October 1, 2018 Agenda be approved as amended:

- **Next Board Meeting is October 25, 2018**
- **Add 2.8 Looking Ahead**
- **Add 2.8.1 Request for Quote: Network Operations**
- **Add 2.8.2 In-house Air Technical Reporting**
- **Add 2.8.3 Monitoring Proposal: PAMS II**

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Initials

1.4 Approval of Minutes

#2 Moved by Patrick Traudt AND RESOLVED that the June 6, 2018 Minutes be approved as presented.

2.0 ONGOING BUSINESS

2.1 Jessie Lake Restoration Project

Colin presented a draft scope of work for the aeration proposal on the Jessie Lake Restoration Project, which will be circulated to the TWG for comment.

2.1.1 Aeration Options

Colin reviewed an assessment and project quote from Enviroway to aerate Jessie Lake to improve the air quality in and around the lake, which will be circulated to the TWG for review. Shawn suggested a second quote be obtained from PondPro to ensure cost efficiency is being maximized.

The aeration project is dependent on the actual depth field of the lake. It was field verified by an ALMS technician during summer sampling that the depth of the lake seems to be nearer 1.7 m, and not the 4.2 m originally reported by the available bathymetric data. Nathan indicated that the depth of the lake will determine whether or not the lake is classified as a wetland or as a lake, which may have implications on what can be done. We have a letter of support from the Town of Bonnyville to proceed with this project.

2.1.2 WRRP – Future Planting Sites and Species

LICA hosted a shoreline cleanup and weed pull at Jessie Lake in July in preparation for the riparian restoration work planned. 5000 seedling were planted along Jessie Lake's shoreline in August. Dogwood, chokecherry, and saskatoon were chosen to help solidify the bank and aid in filtration of the water in the lake. The TWG agreed without motion that willow trees be considered for riparian restoration projects on the south side of the lake where the tall trees will not impede the view of any homeowners.

We have received a letter of support from the Town of Bonnyville to continue with the restoration of the Jessie Lake shoreline.

2.1.3 Shoreline Clean-up September 2018

The Jessie Lake Shoreline Clean-up with NDHS that was originally expected to be completed in September has been scheduled for October 4th, 2018.

2.2 WRRP Grant

2.2.1 Letters of Support for October 2018

The application for next year's WRRP Grant is due on October 30th, 2018 but due to the elections to be held at the LICA AGM on October 9th, we will likely need to have this completed by October 24th, before the organizational meeting. Colin is making a presentation to the MD of Bonnyville on Wednesday, October 3rd and will be seeking a letter of support from them at this time. Colin is also working towards getting a letter of support from the Muriel Lake Basin Management Society (MLBMS).

2.2.2 AEP Feedback – Riparian Fencing

We have received feedback from AEP that they are focusing on riparian fencing as opposed to planting vegetation. This will need to be kept in mind for future project planning. Colin has been working with a landowner along Jackfish Creek by the outlet to Tucker Lake towards this goal.

2.2.3 Riparian Fencing Watercourse to Focus On

The 2006 Cold Lake- Beaver River Water Management Plan highlighted the watercourses that are highly impacted, such as Muriel Creek, Jackfish Creek, and Yelling Creek. The TWG agreed without motion that the WRRP grant should be focused in these areas, and other areas of active cattle operations.

2.3 Creek Water – Quality and Quantity Testing

A pilot project was completed over the summer in partnership with ALMS. We managed to complete 2 samplings of Muriel creek and 1 sampling of Jackfish Creek.

We are looking to expand this program over the next year and are looking at sampling alongside AEP's existing gauging stations to use flow data to substantiate water quality data. The water courses that are proposed for testing are Jackfish Creek, Amisk River, Muriel Creek, Sand River and the Beaver River. There may be opportunities to seek funding through the Oil Sands Monitoring Fund. The TWG agreed that Colin should put together a creek testing project proposal and that it be circulated for review and input from the TWG.

2.4 IWMP

In 2016 the Beaver River Watershed Alliance had compiled a draft Integrated Watershed Management Plan. AEP has indicated that should begin to re-engage this process. This plan will be reviewed in more detail at the next few meetings to determine priorities. The TWG would like to see a detailed project proposal before any work on the IWMP commences.

2.5 Multi-Year Air Report

2.5.1 Review Schedule

Michael Bisaga indicated that the 2 year air report has evolved to become a multi-year report. He and Lily Lin are working on data compilation and reviewed some of the trends that are beginning to emerge.

The Lakeland College has reached out to see if there are any data projects that the environmental sciences students can assist with. Data compilation for the multi-year air report may be something that these students can assist with. Nathan also offered to assist with this work if needed. Patrick also offered to assist in collecting and pairing data.

2.6 Monitoring Operations

2.6.1 Network Renewal Project

LICA has access to an H2S analyzer that could replace the aging TRS analyzer in the Cold Lake Monitoring Station. Historically we have only monitored TRS at this location, however H2S is monitored at all other continuous stations. The TWG discussed the relationship between TRS and H2S. The group suggested running both analyzers side by side for a period of time to provide an overlap of data during the transition, where ultimately only H2S would be monitored. Michael indicated that side by side monitoring would only be possible if there is adequate space within the station to run an additional analyzer.

The network renewal project has given LICA the ability to monitor our support system remotely. This will likely result in reduced downtime.

An asset management system is being implemented to track the network equipment.

2.6.2 Summer 2018 Particulate Matter and Other Data Summaries

Over the summer of 2018 we saw significant impacts on air quality due to forest fire smoke from the BC wildfires. Emissions from the forest fires can travel long distances and are a major source of fine particulate matter which can have significant impacts on air quality, visibility, and health. A summary of particulate matter data from summer 2018 was presented.

2.6.3 PAMS Update

Redeployment of the Portable Air Monitoring System (PAMS) is underway; it will be located at site #2 at the east end of Jessie Lake, near Charlotte Lake. The site has been prepared for power and we are waiting for ATCO to energize the site. A site access agreement with Timberwolf is being drafted. Additionally, we have added some security features to the site, such as temporary fencing, a security camera, a Denver boot, and a hitch lock.

A site selection document has been drafted and will be circulated to the TWG for feedback.

2.6.4 Soil Acidification Project Status

LICA has approved funding for the collection and archiving of soil samples for the soil acidification monitoring program. We have obtained a research permit for the Moose Lake sampling site. The field work is scheduled for October 6-8th, 2018.

The Deposition workshop originally scheduled for October 9-11th has been moved to December.

2.6.5 Maskwa and Cold Lake Meteorological Tower Solutions

Maskwa siting issues: Cutting down trees around the Maskwa station has been ruled out as an option. Our second option is to increase the tower height by replacing the existing tower; five quotes have been received and are being evaluated. The third option is to move the station to a new location. Imperial has identified 2 alternative locations and are being evaluated for suitability. Renewal of the Site Access Agreement with Imperial Oil is underway. LICA will seek input from AEP auditors prior to relocating the station.

Cold Lake siting issues: The scope of work for the site survey has been defined; a quote has been received. We are still waiting for clarification from ATCO Electric in regards to the setback distance before we can proceed. The Cold Lake air monitoring station is owned by Alberta Environment and Parks but they have requested that LICA address the siting issues on their behalf.

2.7 Beaver River Valley Project

2.7.1 Lessons Learned from Met Station Test Deployment

The first phase of the Beaver River Valley Monitoring project involves collecting data (wind speed, wind direction, temperature, and relative humidity) to determine the frequency and conditions under which air pollutants may be transported into and along the valley. Anecdotal evidence from the community suggests that air emissions from different sources are having an effect on the air quality in the Beaver River Valley. There is concern that atmospheric emissions may be draining into the valley, accumulating, and then flowing down-valley. If necessary, phase two will be achieved by supplementing the meteorology instrumentation with appropriate air quality instrumentation to simultaneously measure meteorology and air pollutants of concern, however, the inconclusiveness of modelling results supports anecdotal observations and monitoring at sub-10m heights should be undertaken.

2.7.2 Station Deployment Recommendations Report

The site recommendations report has been completed with 13 sites evaluated and 5 sites shortlisted. Site suitability was evaluated on terrain analysis, valley profiles, and road access. The TWG will review the report and provide feedback.

2.7.3 Decision on Met Tower Deployment Options

A test site was set-up in August with a mobile monitoring station being assembled, programmed, bench tested, tied-in, and deployed at the host site. As next steps we will need to secure the remaining monitoring locations and deploy the full array of monitoring stations.

2.8 Looking Ahead

2.8.1 Request for Quote (RFQ): Networking Operations

LICA is developing a request for quote (RFQ) for Maxxam. This will support internal efforts to renew the Master Service Agreement (MSA) with Maxxam. An outcome of the renewal will be a new 6 month MSA, during which time LICA will evaluate Maxxam's ability to resolve some of the service delivery issues experienced in recent months.

2.8.2 In-house Air Technical Reporting

Lily is investigating the possibility of doing monthly reports internally. A sample report for Cold Lake has been circulated to the TWG. This reporting service is currently being done by Maxxam.

2.8.3 Monitoring Proposal: PAMS II

Michael proposed that a second PAMS unit could be used as a Community Monitoring Station. The second PAMS could be deployed on a rotational basis in small population centers. The existing PAMS would continue to be used for issues response (odours, plant start-up, boundary effects). Results from the AEP Network Optimization Project may also inform of the need for this additional monitoring. Partnership options will be explored by Mike; he will develop a proposal by January 2019.

3.0 UPCOMING MEETING DATES

3.1.1 Board Meeting- October 25, 2018

3.1.2 Next TWG Meeting – TBD Winter 2018

4.0 ADJOURNMENT:

The meeting adjourned at 3:20 p.m.

Approved on: _____
Date

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Signature

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Initials