



What We Heard

LITH Regional Advisory Committee Meeting Summary

Wednesday, October 11, 2023, 5:00 – 8:00 pm

Lion's Mane Banquet Hall, Dow Centennial Centre

On October 11, 2023, Life in the Heartland (LITH) hosted its Regional Advisory Committee (RAC) bi-annual meeting, facilitated by Shawna Bruce. LITH was pleased to have ten public members, representatives from nine industry companies, the Executive Directors from Alberta's Industrial Heartland Association (AIHA), the Fort Air Partnership (FAP), Northeast Capital Industrial Association (NCIA), and Northeast Region Community Awareness Emergency Response (NRCAER).

Industry and public members engaged in a dinner discussion and activity ahead of the formal meeting, allowing them to learn more about each other, as well as discuss what sustainability means to each of them and how they define sustainability. The meeting had a fulsome agenda discussing Environment and Sustainability in the Industrial Heartland.

Members heard presentations from Nadine Blaney from Fort Air Partnership, Laurie Danielson from Northeast Capital Industrial Association, John Parfett from Keyera, and Ashley Hynes from Sherritt where they discussed air quality and monitoring, surface water management, and industry sustainability and biodiversity initiatives.

After the guest presentations, the facilitator opened the floor for questions from the public members to the presenters. A fulsome discussion ensued with participation and more information shared by the other industry companies in attendance. The meeting concluded with the public members sharing their takeaways from this evening's presentations and discussion.

The tentative discussion topic for the next meeting will focus on Heartland Growth (land use planning and transportation). Sheena Fitzpatrick (LITH) and the facilitator will reach out to the panel of public members to confirm this topic is their next top priority for discussion.

The next meeting is scheduled for Wednesday, May 1, 2024, from 5:00 - 8:00 pm at the Dow Centennial Centre (Lion's Mane Room) in Fort Saskatchewan.



LITH Regional Advisory Committee Meeting Notes

Wednesday, October 11, 2023, 5:00 – 8:00 pm

Lion's Mane Banquet Hall, Dow Centennial Centre

Present:

Lana Santana, Public Member	Don Cameron, Dow Canada	
Elizabeth Matthews, Public Member	Michael Liu, Dow Canada	Karla Johnston, NWR
Dave Armbruster, Public Member	Courtenay Boyda, Dow Canada	Nadine Blaney, FAP
Anne Ryan, Public Member	Ashley Hynes, Sherritt	Brenda Gheran, NRCAER
Marg Booker, Public Member	Alyssa Carson, Sherritt	Wendy Konsorada, Shell Scotford
Colin Kerik, Public Member	Greg Poholka, Sherritt	John Parfett, Keyera
Vikki McLaren, Public Member	Corey Wald, Nutrien	Corey Payne, Wolf Midstream
Nevin deMilliano, Public Member	Amanda VanderBurg, MEGlobal	Chad Rothenburger, Aux Sable
Colleen Dollfus, Public Member	Scott Maetche, MEGlobal	Kenny Chijuka, Pembina Pipeline
Barb Gamble, Public Member	Laurie Danielson, NCIA	Sheena Fitzpatrick, LITH
Mark Plamondon, AIHA	Chantal Delfs, NCIA	Shawna Bruce, Facilitator
Karlee Conway, AIHA	Darcy Walberg, NWR	

Call to Order:

The facilitator called the meeting to order at **5:55 PM**.

Welcome and Introductions:

- The facilitator welcomed the group and asked the public members to introduce themselves and where they live in the region.

Review of Agenda and Previous Meeting's Notes:

- Notes from the previous meeting were shared in advance, and the Facilitator invited everyone to refer to their copies of the agenda.

Safety Moment:

- The facilitator opened the meeting with a safety moment highlighting Fire Prevention Week.



Feedback Forum:

- The facilitator introduced the Feedback Forum portion of the evening by sharing the UN's definition of "sustainability".
- During the dinner discussion activity, the public and industry members at each table were asked to give their definition of sustainability.
 - The facilitator then invited the scribes from each table to share their tables' responses.

Environment & Sustainability Guest Presentations:

- Nadine Blaney (FAP) delivered a presentation on behalf of Fort Air Partnership (FAP). She introduced who they are and what they do, then moved into an overview of air quality and the air monitoring FAP does in the region.
- Laurie Danielson (NCIA) delivered a presentation on surface water use and management in Alberta's Industrial Heartland.
- John Parfett (Keyera) delivered a presentation on Keyera's energy transition and low-carbon hub strategies.
- Ashley Hynes (Sherritt International) delivered a presentation on Sherritt's biodiversity objectives, the Streambank Riparian Enhancement Plan (SREP), and ongoing initiatives from their new biodiversity program.

Environment & Sustainability:

- The facilitator opened the floor for questions from the public members to the presenters.
- Public Member (1) asked if Sherritt, as part of their on-site sustainability initiatives, had tried planting any sweetgrass to see how it grows in places where they've been replanting grass and foliage.
 - Ashley Hynes (Sherritt) responded that they had not yet tried planting sweetgrass.
- Public Member (2) inquired about FAP's messaging process around air quality health index (AQHI) advisories.
 - Nadine Blaney (FAP) said that AQHI ratings are updated every three hours and that all public messaging and health advisories related to AQHI ratings are issued by Alberta Health Services (AHS), so all messaging will be consistent with AHS messaging.
- Public Member (3) questioned what determines the location where they put the water site testing and air monitoring stations.
 - Laurie Danielson (NCIA) and Mark Plamondon (AIHA) answered that the provincial government has determined the exact water testing sites and that there's information on this publicly available on the Government of Alberta website.



- Nadine Blaney (FAP) said that FAP monitors the air where people live, so that is the primary means by which they determine where to place stations in communities throughout the region.
- Public Member (4) asked Nadine Blaney (FAP) if there are examples of where or what the air monitoring data is used for.
 - Laurie and Nadine mentioned that the data is used to determine the AQHI. If there are exceedances, health advisories would follow, if necessary (please see Appendix A for further details on how FAP's air quality data is used).
 - John Parfett (Keyera) explained that industry uses the air monitoring data as an emergency response tool, in the event there's a cause coming from industry operations.
 - Wendy Konsorada (Shell Scotford) added that they analyze air monitoring data and modelling across ten years to examine their impact on air quality.
- Public Member (5) inquired what the impact is of a release or substances getting into the water and if there's an impact on industry.
 - Laurie Danielson (NCIA) responded, yes. Explaining that certain substances can be corrosive if they get into pipes. He added that road salt in the winter is one example of a substance getting into the water that also has implications for biodiversity as it is particularly harmful to fish.
- Public Member (6) asked if there's a cost for industry accessing the water supply, and could a farmer or other member of the public gain access to water from the North Saskatchewan River through a straw.
 - Laurie Danielson (NCIA) said that permits are required that it's costly and that there are specific regulations regarding the allocation of water.
- Public Member (7) questioned if water usage for irrigation is controlled, and why is it still used when there's an abundance of rainwater.
 - Laurie Danielson (NCIA) explained that irrigation has specific and separate processes compared to "regular" access to water.
 - Courtenay Boyda (Dow Canada) said that from an industry perspective, distinct regulations and licenses are needed to collect and use rainwater.

Industry and Community Partnerships:

- To highlight industry companies' community investment partnerships in the environment and sustainability space, the facilitator invited company representatives to share some of their activities with the public members.
- Wendy Konsorada (Shell Scotford) detailed a few of Shell Scotford's biodiversity programs. Specifically, the nesting box provided for a peregrine falcon nesting pair (live view of the Shell Scotford Peregrine Camera available at ab-conservation.com) and the honey bee yard they manage for bees that have taken refuge at their plant. The honey is harvested and sold on-site in their cafeteria with all proceeds donated to United Way The honey bee initiative alone raises approximately \$1200 per year that is donated back to the community.



- Karla Johnston (NWR) shared about NWR's efforts to minimize their environmental impact, for example, they run a very robust on-site recycling program. NWR has raised and donated \$935,000 back into the Heartland community, they have also partnered with the Fort Saskatchewan Food Bank, the Multi-Cultural Association, and the Lamont Agricultural Association among others.
- Courtenay Boyda (Dow Canada) highlighted Dow's community initiatives in the sustainability space, including staff clean-up days, their involvement in the NAIT/Inter Pipeline microplastics research program, and the Green Learning recycling program.

Roundtable:

- The facilitator invited the public members to share their final thoughts and takeaways from tonight's meeting.
- Public Member (3) explained that hearing about the straws that draw water from the river was a huge learning and is pleased that stringent processes and regulations exist for this. One remaining question for industry is if they have any issues with birds and waste on the roofs of their facilities, as the military experiences similar issues. Serving as a public member of the Town of Morinville's Advisory Committee, she is happy to be able to share this information with more people in her community.
- Public Member (7) wasn't aware of the cost surrounding gaining access to the water supply. Inquired if industry has a temporary straw, can they then use that to make money off of that supply?
- Public Member (8) remarked that she learned a lot this evening, but her biggest takeaway was the comparison to Canada and the United States' industry access to the water supply.
- Public Member (6)'s takeaway from this evening was industry's cost to access water.
- Public Member (9) shared that she learned a lot this evening and enjoyed the discussion.
- Public Member (4) asked what's the strategy for industry going forward. There was a lot of information about "last year" or "this year"... what about two years from now?
- Public Member (2) voiced that there was lots of interesting information shared tonight. One thought that lingers is if there are talks about any regulations on the use of road salt after hearing that it's damaging as we have such long winters with lots of salt use. One takeaway to share with others about tonight would be that industry takes community investment very seriously.
- Public Member (5) stated that they would like to learn more about the emissions reduction and carbon capture strategies and that they look forward to sharing about community investment and the contributions from industry to the community.
- Public Member (1) remarked that from an indigenous perspective, there were lots of industry initiatives highlighted tonight that protect animals and water, etc. but what about the people who lived here? Asking if Sherritt has done a history of the land, explaining that the land where Sherritt's facility lies is Indigenous land and that the Indigenous people who lived there were pushed out.



- Greg Poholka (Sherritt) responded that they are working on a project in the indigenous space, not a history of the Indigenous land per se, but hopes to be able to share more about their project very soon.
- John Parfett (Keyera) appreciates the question and will take it back to his team to discuss and hopes to be able to share soon what their plan will be.
- Courtenay Boyda (Dow Canada) feels this is an important conversation to have and that Dow takes it seriously and hopes to work together and build a plan moving forward.

Next Meeting:

- Closing out the formal agenda, the facilitator thanked everyone for attending this evening and asked that they all please complete a post-meeting survey before they leave.
- Next Meeting: Wednesday, May 1, 2024, 5:00 - 8:00 pm, Dow Centennial Centre (Lion's Mane Room).
 - The next meeting's topic is to be confirmed. The tentative topic will focus on Heartland Growth (land use planning and transportation).

Adjournment:

The facilitator adjourned the meeting at **8:03 PM**.



Appendix A

Fort Air Partnership's (FAP) data is used in the following ways:

1. It is used by the Government of Alberta to calculate the Air Quality Health Index.
2. It is used by Environment and Climate Change Canada to provide a forecasted Air Quality Health Index.
3. It is used by the Government of Alberta and industry in air dispersion modelling, to predict the impact of new emission sources on air quality.
4. It is used by industry and the Government of Alberta in their emergency response systems to predict where a plume may travel in the case of an emergency release.
5. It is used by FAP to report exceedances of Ambient Air Quality Objectives, when an exceedance occurs it is reported by FAP to the Government of Alberta and a follow-up letter explaining the reason for the exceedance (if known) is then submitted within 7 days. If the exceedances are reoccurring, the Government of Alberta will investigate.
6. All validated data is stored in a provincial data warehouse that anyone can access (<https://www.alberta.ca/alberta-air-data-warehouse>).
7. FAP also uses the data to provide quarterly and annual air quality summaries to the public and to provide a data trending report in 2019, this will be completed again in 2024.
8. Some specific examples of where FAP data was used to better understand air quality in the FAP region:

Portable Station Projects

1. Bon Accord:

- Factors that led to the selection of Bon Accord as the first location for the station included the Town having a large population base for the region, the fact that there has been no continuous monitoring done near the Town previous to this project and specific air quality concerns that had been brought to the attention of FAP.
- One of the major air quality concerns of the town was the impact of coal burning as a source of residential home heating. The substance measured to address this concern was fine particulate matter (PM_{2.5}). Although there were exceedances of the Alberta Ambient Air Quality Objective (AAAQO) for PM_{2.5} recorded during the 10-month project, these were all attributed to wildfire smoke and regional temperature inversion events that covered the entire Edmonton Metropolitan Region. PM_{2.5} measurements at Bon Accord for the duration of this project did not differ significantly from other community stations in the FAP network; if coal burning did influence air quality within the town it did not lead to PM_{2.5} measurements in exceedance of the AAAQO.
- Another of the town's concerns revolved around odours believed to be generated by the town's sewage lagoon located south of the town. Hydrogen sulphide (H₂S) was



measured to address this concern. Although there were exceedances of the AAAQO for H₂S recorded during the 10-month project, all of these were attributed to the wetlands located in the southeast corner of town. The H₂S levels at Bon Accord do not differ substantially from other communities within FAP except for levels measured in May. The measurements in May were elevated above the other stations largely due to the nearby wetlands. All the monthly averages, other than in May, recorded at other stations were within 0.2 ppb of those measured at Bon Accord.

- Data collected during the 10-month Bon Accord project was also used to calculate an Air Quality Health Index, as is done at other community stations within FAP. Bon Accord was in the low-risk category 90.1% of the time, a slightly higher percentage than the three FAP community stations used for comparison in this report.
- The full report can be found at:
<https://www.fortair.org/wp-content/uploads/2019/10/FAP-Bon-Accord-Portable-Report-2019-final.pdf>

2. Chipman:

- Factors that led to the selection of Chipman as a location for the station included the village being a populated area that had no previous continuous monitoring done in its immediate vicinity previous to this project, and an interest in the possible impacts of Alberta's Industrial Heartland on local air quality that was brought to the attention of FAP by the village. This location was also selected because Chipman is on the eastern border of FAP and would provide a good representation of the air quality leaving the FAP Airshed when winds are from the western quadrant.
- Since the Air Quality Health Index (AQHI) is a measurement of air quality as it pertains to human health, substances monitored during this project were included as a standard suite of parameters for a community AQHI station. Data collected during the 12-month Chipman project was used to calculate an AQHI, as is done at other community stations within FAP. Chipman was in the low-risk category 98.6% of the time, a slightly better percentage than the four other FAP community stations used for comparison in this report
- The full report can be found at:
<https://www.fortair.org/wp-content/uploads/2020/10/FAP-Chipman-Portable-Report-2020-final.pdf>

3. Sturgeon County:

- A significant factor in the selection of Sturgeon County as a location for the Portable Station was the air quality concerns that residents in this area of Sturgeon County brought to Sturgeon County Council in 2019. This in turn triggered a request from Sturgeon County on behalf of the resident's group that the Portable Station be located



near their residences. There are approximately 30 residences within the portion of Sturgeon County zoned as Heavy Industrial.

- Data collected during the 9-month Sturgeon County project was used to calculate the AQHI, as is done at several community stations within FAP. This site was located within a rural residential area; however, it is not a recognized municipality as are the other FAP community sites. The Sturgeon County site was in the low-risk AQHI category for 98.5% of the project timeframe.
- The full report can be found at:
<https://www.fortair.org/wp-content/uploads/2021/08/Sturgeon-County-report-final.pdf>

4. Town of Lamont:

- Factors that led to the selection of the Town of Lamont as a location for the station included the fact that there has been no continuous monitoring done historically in the Town of Lamont. Also, the nearest continuous air quality monitoring station is the Lamont County site, approximately 7 km from the proposed site, the Town of Lamont is the largest community in FAP without a continuous monitoring station and the Town of Lamont is near the eastern border of FAP and would provide a good representation of the air quality leaving the FAP Airshed when winds are from the western quadrants.
- Since the Air Quality Health Index (AQHI) is a measurement of air quality as it pertains to human health, substances monitored during this project were included as a standard suite of parameters for a community AQHI station. Data collected during the 13-month Town of Lamont project was used to calculate an AQHI, as is done at other community stations within FAP. The Town of Lamont was in the low-risk category 98.4% of the time, a slightly higher percentage than the four other FAP community stations used for comparison in this report.
- The full report can be found at:
https://www.fortair.org/wp-content/uploads/2023/02/FAP_LamontPortableReport_2022_Final_for-web.pdf

Data Trending and Comparison Report:

- This report provides air quality trending and comparison information, with data going back as far as 1991, for fine particulate matter, ozone, sulphur dioxide, nitrogen dioxide and carbon monoxide. Trends and comparisons are shown among stations that monitor for these substances and have the longest data sets within the [Fort Air Partnership \(FAP\) Airshed](#), and between Fort Air Partnership's Fort Saskatchewan station and other selected Alberta, national and international locations.
- The full report can be found at:
https://www.fortair.org/wp-content/uploads/2019/05/FAP_TrendComparisonReport_2019_Final.pdf



Fine Particulate Matter Speciation Project:

- A three-year research study was completed that examined sources of fine particulate matter in the Fort Saskatchewan area. The data collected during this project will also be used by the Government of Alberta in particulate matter speciation studies they are conducting in the Red Deer- North Saskatchewan Region, as well as evaluating the performance of photochemical modelling in support of the Designated Industrial Zone Pilot Project.
- PM_{2.5} mass concentrations at the Ross Creek station located in Fort Saskatchewan had the largest contributions from secondary particulate matter components consisting of organic carbon and metals, ammonium nitrate, and ammonium sulphate. The substances that react to form these secondary particulate matter components observed during the study are emitted by urban and industrial activities both within and outside of Fort Air Partnership's boundaries and the broader Edmonton Metropolitan Area. On the days when higher concentrations of PM_{2.5} were measured, meteorological conditions were more conducive to pollution buildup, especially in the case of wintertime temperature inversions in the winter months and wildfire smoke episodes during the summer months.
- The full report can be found at:
<https://www.fortair.org/wp-content/uploads/2022/04/Fort-Air-Partnership-Particulate-Matter-Speciation-Report-Final.html>

Volatile Organic Compound Speciation Project:

- The VOC Speciation project consisted of 24-hour samples being collected every six days. In addition to this, 1-hour samples were collected each time a pre-set level for total NMHCs was reached. This level was set based on concentrations recorded during previous unexplained NMHC events at the Bruderheim station. While the 24-hour samples provided information on the general concentration of VOCs at the site, the 1-hour samples defined the composition of VOCs when NMHC concentrations were elevated.
- Almost all 24-hour samples had increased concentrations of pentane, butane, propylene, n-hexane and methylcyclohexane. These VOCs have in previous North American studies been associated with gas or vapour emissions from pressurized equipment due to leaks and other unintended or irregular releases from the production and storage of petroleum-based products. In addition to this general observation, a few samples contained complex mixtures of VOCs or very few VOCs. The observed variability in the 1-hour integrated event samples supports multiple possible source types.
- The Bruderheim station is located in an area with various sources that are known to emit hydrocarbons into the atmosphere. The types of VOCs found in the samples, and the weather conditions during which they were measured, indicate that nearby oil and gas storage facilities in the area are a possible source.



- The recorded VOC concentrations were also compared to AAAQOs for selected VOC species that have objectives in place. Concentrations measured in this study did not exceed established AAAQOs. Where available and in the absence of AAAQOs, measured concentrations were compared to Texas Air Monitoring Comparison Values (AMCVs), which are the AAAQO equivalent developed by Texas. VOCs measured during the study did not exceed the short and long-term published AMCVs.
- While the study results indicate that nearby oil and gas storage facilities are a possible source of elevated NMHCs at the Bruderheim (1) Station, VOCs measured during the study did not exceed established AAQOs, or AMCVs. NMHC concentrations at the Bruderheim 1 station will continue to be measured to evaluate trends.
- The full report can be found at:
<https://www.fortair.org/wp-content/uploads/2021/10/FAP-Bruderheim-VOC-Report-final-1.pdf>

Hydrogen Sulphide Data Analysis at Scotford Station:

- The Fort Air Partnership led a third-party evaluation to assess the potential for natural sources of H₂S arising from bogs and wetlands adjacent to FAP's Scotford 2 Air Quality Monitoring (AQM) station in 2009. The study found that the measured soil values indicate the potential for the production of methane and hydrogen sulphide through anaerobic conditions