Council Package February 28, 2023



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AGENDA TOWN OF LAMONT REGULAR MEETING OF COUNCIL February 28, 2023

1. CALL TO ORDER AND RELATED BUSINESS

	1.1. CALL TO ORDER
	1.2. ADOPTION OF AGENDA
	1.3. DECLARATION OF PECUNIARY INTEREST
	1.4. ADOPTION OF MINUTES
	1.4.1. February 14, 2023 Council Meeting MinutesPage 1
2.	DELEGATIONS
	2.1. MOTION FOR ACCEPTANCE OF DELEGATION
	2.1.1. Allen Antoniuk
	2.1.2. Shayne Milliken – Lamont County Emergency Services Report
3.	CORRESPONDENCE
	3.1. AGLC Response – Letter of Support Camrose CasinoPage 20
4.	NEW BUSINESS
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	4.2. School Zone Extension UpdatePage 24
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7.	CLOSED SESSIONPage 64
	7.1. Bylaw Enforcement Report
	7.2. Northeast Regional Mayors, Reeves, Indigenous Leaders Caucus
	7.3. Specific Use Regulations
	7.4. 2023 Municipal Requisition

8. ADJOURNMENT



Town of Lamont February 14, 2023 Regular Meeting of Council

5307 – 50 Avenue Lamont, AB TOB 2R0

PRESENT:

Jody Foulds Linda Sieker Al Harvey Dave Taylor Perry Koroluk Colleen Holowaychuk

Rick Bastow Tyler Edworthy Robert Mu Jaclyn Ponto-Lloyd Deputy Mayor Councillor Councillor Councillor Councillor Councillor

Chief Administrative Officer Director, Operations & Infrastructure Finance Officer Recording Secretary

CALL TO ORDER AND RELATED BUSINESS:

Call to Order: Deputy Mayor Foulds: called the meeting to order at 7:00 p.m.

Adoption of Agenda

• Addition of Item 4.13 – Mayor Absence

MOTION: 35/23 Councillor Harvey: That the Council Agenda be accepted as amended.

CARRIED

Declaration of Pecuniary Interest: None.

ADOPTION OF MINUTES:

a) Meeting Minutes – January 24, 2023

MOTION: 36/23 <u>Councillor Sieker:</u> That the Minutes of the January 24, 2023 Council Meeting be accepted as presented.

CARRIED

DELEGATIONS:

• Fort Saskatchewan RCMP – Inspector LaRocque & Staff Sergeant Hyggen

MOTION: 37/23 <u>Councillor Holowaychuk:</u> That Fort Saskatchewan RCMP Inspector LaRocque and Staff Sergeant Hyggen be accepted as a delegation.

CORRESPONDENCE:

- Fort Saskatchewan RCMP Quarterly Report
- Town of Fox Creek Ambulance Service
- Alberta Health Services EMS/811 Shared Response
- Alberta Technology & Innovation Digital Strategy
- Lamont Public Library Board Meeting Minutes January 9, 2023
- Northeast Regional Mayors, Reeves, Indigenous Leaders Caucus EMS
- EIPS Board Highlights January 19, 2023
- EIPS Quarterly Update February 2023

MOTION: 38/23 Councillor Taylor: That Council accept the correspondence as information.

CARRIED

NEW BUSINESS:

<u>RCMP – Lamont Town Hall Meeting</u>

MOTION: 39/23 <u>Councillor Sieker:</u> That Council waive associated meeting room rental fee and provide advertising in support of the RCMP – Lamont Town Hall Meeting.

CARRIED

Lamont Farmers' Market Initiative

MOTION: 40/23 <u>Councillor Taylor</u>: That Council waive associated 2023 facility rental fees in support of the Lamont Farmers Market initiative.

CARRIED

2023 Economic Development

MOTION: 41/23 <u>Councillor Koroluk:</u> That Council direct Administration to proceed with the Request for Expressions of Interest (REOI) initiative.

CARRIED

Town of Lamont – Asset Condition Assessment Update

MOTION: 42/23 <u>Councillor Harvey:</u> That Council accept the Town of Lamont-Facility Asset Condition Assessment Update as information.

MOTION: 43/23 <u>Councillor Koroluk:</u> That Council accept the Town of Lamont-Grant Application update as information.

CARRIED

MOTION: 44/23 <u>Councillor Taylor</u>: That Council approve up to \$25,000 to apply for the Green House Gas Reduction Pathway Feasibility Study identified in the operational budget.

CARRIED

2022 Year End Reserve Level Update

MOTION: 45/23 <u>Councillor Holowaychuk:</u> That Council receive the 2022 Year End Reserve Level Update as information.

CARRIED

MOTION: 46/23 <u>Councillor Sieker:</u> That Council approve administration implementing an increase of \$10,198 to Park Operating Reserves.

CARRIED

MOTION: 47/23 <u>Councillor Koroluk:</u> That Council approve the administration implementing an increase of \$32,342 to Water Operating Reserves.

CARRIED

Bylaw 03/23, Procedural Bylaw

MOTION: 48/23 <u>Councillor Sieker:</u> That Council give first reading to Bylaw 03/23, Procedural Bylaw.

CARRIED

MOTION: 49/23 <u>Councillor Holowaychuk:</u> That Council give second reading to Bylaw 03/23, Procedural Bylaw.

MOTION: 50/23 <u>Councillor Taylor</u>: That Council unanimous consent to proceed to third reading of Bylaw 03/23, Procedural Bylaw.

UNANIMOUSLY CARRIED

MOTION: 51/23 <u>Councillor Holowaychuk:</u> That Council give third reading to Bylaw 03/23, Procedural Bylaw.

CARRIED

Assessment Review Board – Annual Appointments

MOTION: 52/23 <u>Councillor Koroluk:</u> That Council appoint the following individuals, as members of the Assessment Review Board for a term ending December 31, 2023: Darlene Chartrand, Tina Groszko, Stewart Hennig, Richard Knowles, and Raymond Ralph.

CARRIED

MOTION: 53/23 <u>Councillor Sieker:</u> That Council appoint Raymond Ralph as Chair of the Assessment Review Board for a term ending December 31, 2023.

CARRIED

MOTION: 54/23 <u>Councillor Taylor:</u> That Council appoint Gerryl Amorin as Clerk of the Assessment Review Board for a term ending December 31, 2023.

CARRIED

Beaver Hills Biosphere Open House

MOTION: 55/23 <u>Councillor Taylor:</u> That Council receive the Beaver Hills Biosphere Open House report as information.

CARRIED

Lamont Public Library Request

MOTION: 56/23 <u>Councillor Koroluk:</u> That Council provide the Lamont public Library an in-kind donation of the use of the Meeting room on May 12, 2023.

MOTION: 57/23 <u>Councillor Koroluk:</u> That Council direct Administration to write a letter in support of the Camrose casino appeal of the AGLCs decision to deny the request to relocate the casino from Camrose to South Edmonton.

CARRIED

Centenarian Recognition

MOTION: 58/23 <u>Councillor Sieker:</u> That Council accept the Centenarian Recognition update as information.

CARRIED

Mayor Absence

MOTION: 59/23 <u>Councillor Harvey:</u> That Council accept Mayor Perrin's absence at the February 14, 2023 Council Meeting due to a professional commitment.

CARRIED

REPORTS:

Council Reports:

Mayor Perrin	Written report attached.
Councillor Taylor	Attended the February 4 John S. Batiuk Meeting and February 13 Lamont Farmers' Market Meeting.
Councillor Harvey	Attended the Bruderheim CAO Farewell.
Councillor Koroluk	Nothing to report.
Councillor Sieker	Written report attached.
Councillor Foulds	Written report attached.
Councillor Holowaychuk	Nothing to report.
ff Reports:	

Staff Reports:

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CAO	Written report attached.
Director, Operations & Infrastructure	Written report attached.
Finance Officer	Written report attached.
Council Minutes	
February 14, 2023	

MOTION: 60/23 Councillor Taylor: That Council accept the reports as presented.

CARRIED

NOTICES OF MOTION: None.

CLOSED SESSION:

- Response: Lamont County Bylaw 849-22 Municipal Development Plan; and Lamont County Land Use Bylaw 848-22
 - FOIP Section 24 Advice from Officials
- Sponsorship
 - FOIP Section 24 Advice from Officials
- Economic Development Inquiry • FOIP Section 24 – Advice from Officials
- Watermain Update • FOIP Section 24 – Advice from Officials
- Recreation Agreement
 - FOIP Section 24 Advice from Officials
- MOTION: 61/23 <u>Councillor Harvey</u>: That Council convene in closed session pursuant to Section 197 of the *Municipal Government Act* to meet in private to discuss matters protected from disclosure by Section 24 of the *Freedom of Information and Protection of Privacy Act* at 8:24 p.m.

CARRIED

MOTION: 62/23 <u>Councillor Holowaychuk:</u> That Council revert to regular Council meeting session at 9:17 p.m.

CARRIED

MOTION: 63/23 <u>Councillor Taylor:</u> That Council extend the meeting past 9:00 p.m.

Council Minutes February 14, 2023 Page 7 of 7

MOTIONS ARISING FROM CLOSED SESSION:

MOTION: 64/23 <u>Councillor Sieker</u>: That Council receive the update on Lamont County's Bylaw 849-22 and 848-22 as information.

CARRIED

MOTION: 65/23 <u>Councillor Holowaychuk:</u> That Council receive the sponsorship agreement update as information.

CARRIED

MOTION: 66/23 <u>Councillor Taylor:</u> That Council receive the Economic Development Inquiry as information and refer the opportunity to Invest Alberta.

CARRIED

MOTION: 67/23 Councillor Sieker: That Council receive the waterline update as information.

CARRIED

MOTION: 68/23 <u>Councillor Taylor:</u> That Council receive the Recreation Agreement update as information and direct Administration to proceed as discussed.

CARRIED

ADJOURNMENT: Deputy Mayor Foulds adjourned the meeting at 9:21 p.m.

Mayor

Chief Administrative Officer



Agenda Item: 2.1.2

Lamont County Emergency Services

Update to Town of Lamont

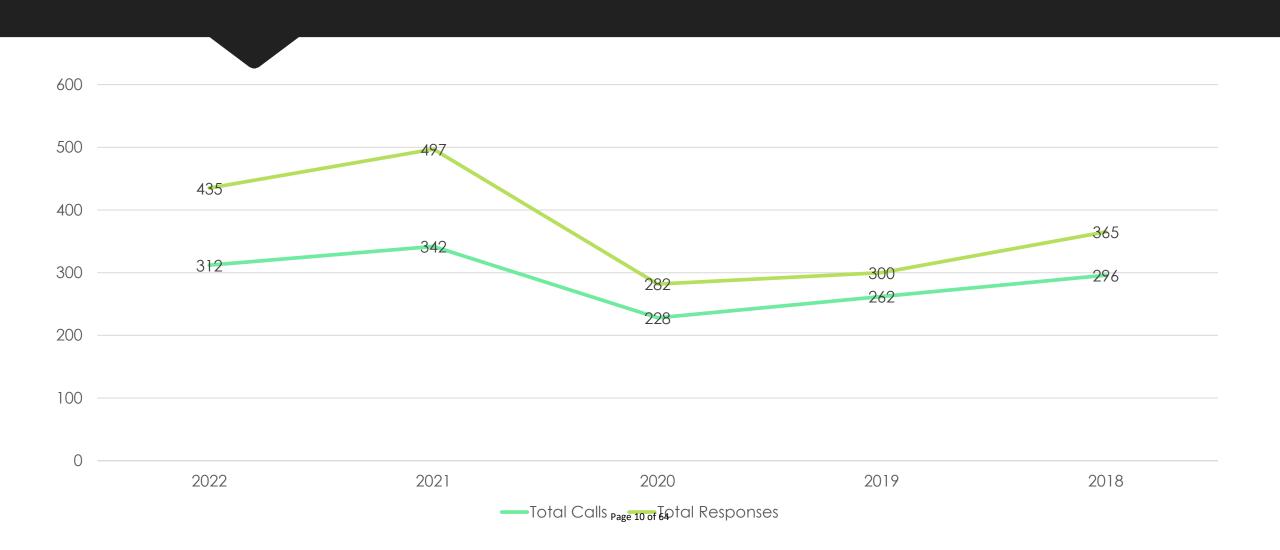
Shayne Milliken Regional Fire Chief | Lamont County

February 28, 2023

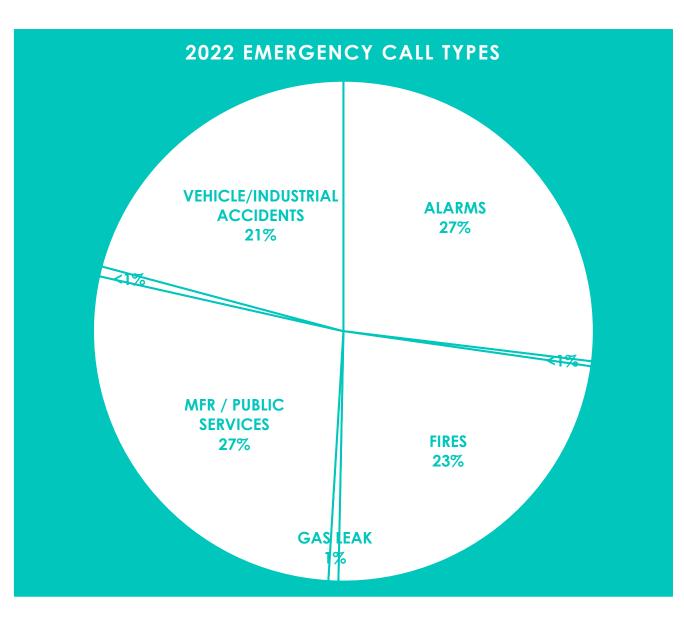


- To update on current call volumes and call trends both regionally and district specific.
- To summarize key response highlights.
- To provide an update about district initiatives.

Regional Call Volume

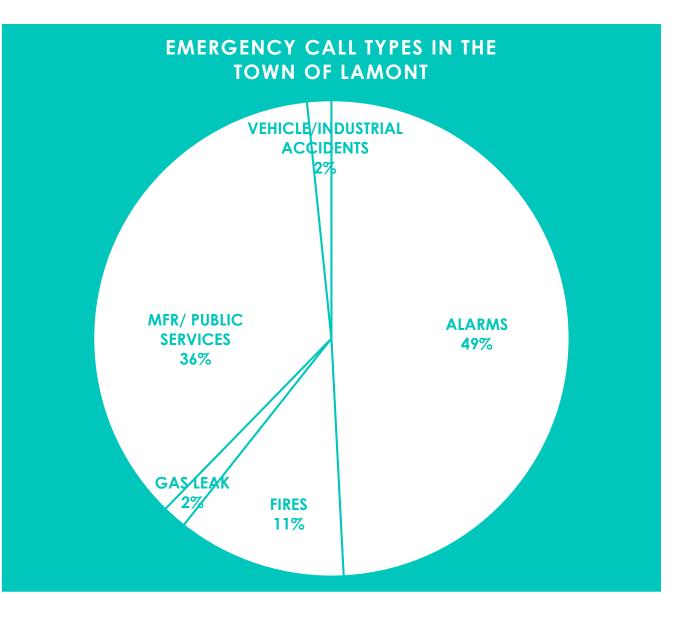


Call Types as a Region (2022)



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Call Types as a Town (2022)



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Call Volume

	2022	2021	2020	2019
Regional Total Responses	435	497	282	300
Lamont District (% of Regional Total)	135 (31%)	121 (24%)	74 (26%)	77 (26%)
Responses by Station 4 in Town of Lamont (% of Lamont District Total)	59 (44%)	41 (34%)	34 (46%)	28 (36%)

Response Statistics (2022)

Criteria	Lamont Fire District	Regional Average
Average Chute Time	06:36	07:20
Average Travel Time	09:43	11:25
Average Response Time	16:19	18:40
Average Personnel	3.78	4.86
Average Total Call Time	01:49:22	01:52:21

Response Statistics (2022)

Criteria	Lamont Fire District (Town Only)
Average Chute Time	06:00
Average Travel Time	02:22
Average Response Time	08:22
Average Personnel	2.81
Average Total Call Time	00:34:56

Staffing (Current)

Full Organization	Lamont District
86	22 (26% of Workforce)
	1 District Chief 1 Asst. District Chief 2 Captains 2 Lieutenants 16 Firefighters

Response Highlights

- Structure Fires Averaging roughly 10 minute response time over the past 5 years. (11 structure fires in Town limits since January 1, 2018).
- Lamont is a high performing district in terms of training and competency.
- Day-time response capacity in Lamont is a concern (not unique to any other station).
- In Town calls make up an average of 40% of the total annual district call volume
- Medical first response call volume is seeing an uptick within the Town. Limited instances of fire on scene before EMS.

District Community Involvement

O In 2022...

- Christmas Hamper Program
- O Heroes in the Sky
- O Car Crafters Event
- Remembrance Day Ceremony
- O Lamont Parade
- O Preschool Tours
- School Visits
- Community Inspections
- O Halloween Patrol
- Community Awareness Nights

180 Staff Hours on Volunteer Community Events

Other Initiatives/Updates

• Peak Season Staffing Model

• Program piloted in 2021, launched in 2022, and continues through 2023.

• Monday to Friday full time crew from mid-April to mid-June.

• Regional Training Center

- Fully accredited and completed after close to 10 years.
- In use frequently by all stations. Increases real-time training opportunities.

From: Nadja Lacroix <<u>Nadja.Lacroix@aglc.ca</u>> Sent: Thursday, February 16, 2023 2:57 PM To: Jaclyn Ponto <<u>Jaclyn.P@lamont.ca</u>> Subject: RE: Letter of Support - Camrose Casino

Dear Ms. Ponto-Lloyd,

Thank you for your email on behalf of Mayor Kirk Perrin, Town of Lamont, with respect to the Camrose Resort Casino's application for relocation.

On November 10, 2022, the Alberta Gaming, Liquor & Cannabis Commission (AGLC) Board reviewed the Capital City Casino's application to relocate the existing Camrose Casino to the Edmonton market. After careful deliberations, the Board decided not to approve the relocation by ending the approval process pursuant to Section 15.3.24 of the Casino Terms & Conditions and Operating Guidelines (CTCOG).

In accordance with Section 94(1) of the *Gaming, Liquor and Cannabis Act*, the applicant has the right to request a hearing before a Panel of the AGLC Board. A hearing has been scheduled this spring – decisions are posted to the <u>AGLC website</u>.

Regards,



Nadja Lacroix BPA Senior Manager, Inspections Gaming, Compliance Branch Regulatory Services

 Phone
 Fax 780-447-8913

 Toll Free 1-800-272-8876
 Email nadja.lacroix@aglc.ca
 Web

 aglc.ca
 50 Corriveau Avenue, St. Albert AB T8N 3T5



AGENDA ITEM:

4.1

COUNCIL MEETING DATE: February 28, 2023

ITEM DESCRIPTION OR TITLE

Municipal Development Plan

RECOMMENDATION

- 1. **THAT** Council give first reading to Bylaw 06/23, Municipal Development Plan Amendment.
- 2. **THAT** the Public Hearing for Bylaw 06/23 be scheduled for March 23, 2023, at 6:30 p.m.

BACKGROUND

To meet updated legislative requirements, the Town's Municipal Development Plan will need to be updated to include policies relating to the preservation of agricultural land.

Notice must be provided of the amending bylaw and a public hearing must be held in accordance with the Municipal Government Act.

The amendment will consist of the addition of paragraph 11 under Section 8 to read, "The Town will work to protect agricultural operations by ensuring land within town is used to its best potential before expansion into agricultural areas; and, by undertaking approved land uses within town so as not to create adverse effects on existing agricultural operations that may be located on adjacent lands in Lamont County."

COMMUNICATIONS

The Public Hearing will be advertised as required in the *Municipal Government Act*, once a week for two (2) consecutive weeks in the local newspaper. The advertisement will also be shared on the Town's website and social media platforms.

IMPLICATIONS OF DECISION

By providing first reading, the details for scheduling the Public Hearing will be prepared to gain any information from the public on the amendments proposed.

Following the Public Hearing a Request for Decision would be brought forward with the proposed Bylaw for further readings.

FINANCIAL IMPLICATIONS



POLICY AND/OR LEGISLATIVE REFERENCES

Municipal Development Plan Municipal Government Act (MGA)

ATTACHMENTS

Bylaw 06/23, Municipal Development Plan Amendment

Report Prepared By: Jackii Ponto-Lloyd, Executive Assistant

Approved by CAO:

TOWN OF LAMONT BYLAW 06/23



BEING A BYLAW OF THE TOWN OF LAMONT IN THE PROVINCE OF ALBERTA FOR THE PURPOSE OF AMENDING THE MUNICIPAL DEVELOPMENT PLAN OF THE TOWN OF LAMONT.

WHEREAS the *Municipal Government Act*, RSA 2000, as amended (the "Act") provides that a Municipal Council may amend its Municipal Development Plan;

AND WHEREAS the Council of the Town of Lamont deems it advisable to amend the Municipal Development Plan;

NOW THEREFORE the Council of the Town of Lamont, hereby enacts as follows:

- 1. That Bylaw 06/07 be amended as follows:
 - a. Section 8 shall be renamed "The Environment and Agricultural Land".
 - b. Addition of paragraph 11 under Section 8 to read, "The Town will work to protect agricultural operations by ensuring land within town is used to its best potential before expansion into agricultural areas; and, by undertaking approved land uses within town so as not to create adverse effects on existing agricultural operations that may be located on adjacent lands in Lamont County."

2. EFFECTIVE DATE

a. That this Bylaw shall come into force and take effect upon the date of third reading and is duly signed.

READ A FIRST TIME THIS _____ DAY OF _____, 20_____.

READ A SECOND TIME THIS _____ DAY OF _____, 20_____.

READ A THIRD TIME AND PASSED THIS _____ DAY OF _____, 20_____.

Mayor

Chief Administrative Officer

Date signed

Initials_____



AGENDA ITEM:

4.2

COUNCIL MEETING DATE: February 28, 2023

ITEM DESCRIPTION OR TITLE

School Zone Extension Update

RECOMMENDATION

THAT Council accept the School Zone Extension update as information.

BACKGROUND

Council approved the extension of the 50th Ave school zone transition area on December 13, 2022 (motion: 385/22), in line with the Alberta Infrastructure and Transportation guidelines.

Administration has secured the required signage that will be installed in line with the guidelines to extend the school zone transition area. The sign installation will be coordinated with other maintenance activities requiring a vac truck to minimise cost impacts and is scheduled to be installed before March 31, 2023.

The extended schools zone transition area change will be posted on social media and the Town of Lamont website starting March 10, 2023. This will ensure residents are aware of the changes.

COMMUNICATIONS

Move school zone transition area signage.

Communicate the transition zone changes with the public through social media and website.

IMPLICATIONS OF DECISION

Promote pedestrian and traffic safety on 50th Ave.

FINANCIAL IMPLICATIONS

N/A

POLICY AND/OR LEGISLATIVE REFERENCES

Strategic Plan 2023 – 2027 Goal. Enhance community sense of safety and Town's emergency preparedness.



N/A

ATTACHMENTS

Report Prepared By: Tyler Edworthy Director Operations and Infrastructure.



AGENDA ITEM:

4.3

COUNCIL MEETING DATE: February 28, 2023

ITEM DESCRIPTION OR TITLE

Canada Post Office-Accessibility Upgrades Update.

RECOMMENDATION

THAT Council accept the Canada Post Office – Accessibility Upgrade update as information.

BACKGROUND

Administration received a request from YEG Architectural INC. on behalf of Canada Post Corporation to update the accessibility standards for their facility located at 4809-51 Street in Lamont. The proposed project focuses on improving accessibility from the parking stall to the main entrance including new signage, accessible ramp, accessible curb, entrance width, and parking stall identification and location.

On December 13, 2022, Council approved Canada Post Corporation to undertake the off-site accessibility upgrades as requested (Motion: 383/22). Administration has received an update that Canada Post Corporation has put the accessibility project on hold due to budget constraints, and YEG Architectural INC. will provide an update if funding becomes available for the Town of Lamont site.

N/A

COMMUNICATIONS

IMPLICATIONS OF DECISION

N/A

FINANCIAL IMPLICATIONS

N/A

POLICY AND/OR LEGISLATIVE REFERENCES

N/A



	ATTACHMENTS
N/A	

Report Prepared By: Tyler Edworthy Director Operations and Infrastructure.

Approved by CAO:



AGENDA ITEM:

4.4

COUNCIL MEETING DATE: February 28, 2023

ITEM DESCRIPTION OR TITLE

Seniors' Week Declaration

RECOMMENDATION

1. **THAT** Council declare June 5-11, 2023, to be Seniors' Week.

2. **THAT** Council determine the appropriate course of action.

BACKGROUND

Recognized annually across Alberta, Seniors' Week provides an opportunity to show appreciation for older adults and the many contributions they make to our communities.

Concepts for an event during Seniors' Week will be presented to Council as per Budget 2023 finalization.

COMMUNICATIONS

The Government of Alberta will be notified of the declaration.

IMPLICATIONS OF DECISION

Supports community sense of place.

FINANCIAL IMPLICATIONS

TBD

POLICY AND/OR LEGISLATIVE REFERENCES

Strategic Plan 2019 – 2022 Goal 5: Develop and deliver quality services and amenities for all residents.

ATTACHMENTS

- 1. Declaration request
- 2. 11-25 Proclamation Policy
- 3. 2023 Seniors' Week Community Declaration

Report Prepared By: Jackii Ponto-Lloyd, Executive Assistant

Approved by CAO:

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From: Seniors Information <<u>Seniorsinformation@gov.ab.ca</u>>
Sent: Monday, February 13, 2023 10:09 AM
To: Seniors Information <<u>Seniorsinformation@gov.ab.ca</u>>
Subject: Celebrate and Declare Seniors' Week 2023!

For 37 years, the Government of Alberta has celebrated the first week of June to honour and recognize seniors for their many contributions to Alberta. This year, Seniors' Week is from June 5 - 11. If you are planning an event in your community on June 5, you are encouraged to submit an Expression of Interest by **February 28, 2023**, to help officially kick-off the celebrations. The community with the selected expression of interest will receive a \$5,000 grant to co-host the provincial launch event of Seniors' Week 2023. Please visit <u>https://www.alberta.ca/seniors-week.aspx</u> for more information.

As well, all municipalities, First Nations communities and Metis Settlements are invited to officially declare Seniors' Week. Attached is a Community Declaration to show your support and to generate greater awareness of the importance of seniors in Alberta. If your community officially declares Seniors' Week, please send a notification to <u>seniorsinformation@gov.ab.ca</u> by **June 1, 2023**, so your participation can be acknowledged on <u>https://www.alberta.ca/seniors-week.aspx</u>.

Your community or organization is encouraged to recognize and celebrate seniors throughout Seniors' Week. To learn more, please visit <u>https://www.alberta.ca/seniors-week.aspx</u> or email at <u>seniorsinformation@gov.ab.ca</u> if you have any questions.

Best regards, Seniors, Community and Social Services

Alberta

Town of Lamont Policy Manual



Proclamation Policy Policy # 11-25 Corporate Services Committee February 22, 2022

Proclamation Policy

Policy Statement

Proclamations are an excellent method of communicating valuable education and information to residents of the Town of Lamont. The Town Council values the opportunity to consider a request for a proclamation.

Procedure

1. Requests for a proclamation must be in writing and received at least seven (7) days prior to the Council Meeting at which the request will go forward if requested by an outside group or entity, or as brought forward to Council by Administration. The request can be sent to the following:

Town of Lamont 5307 – 50 Avenue PO Box 330 Lamont, AB T0B 2R0 Email: general@lamont.ca

- 2. All requests must contain draft wording of the proclamation.
- 3. At least one of the following criteria must be met:
 - a. The sponsoring agency be a charitable organization located or having a presence within the Town of Lamont;
 - b. The cause be one of provincial or national significance;
 - c. The cause be a benefit to the majority of residents;
 - d. The cause is an initiative of the Town of Lamont.
- 4. Proclamations that meet the established criteria will be presented to Council for consideration.
- 5. Proclamations that are endorsed by Council shall be prepared for the Mayor's signature and provided to the source of the proclamation request.
- 6. The Town of Lamont will not incur any expense for the advertising of any Proclamation, on behalf of any group or organization.

Adopted by Council:	February 22, 2022	Initials:
Motion Number:	56/22	1 /B
Supersedes:	N/A	



DECLARATION

In honour of the past, present and future contributions of the seniors of this community and throughout Alberta, I hereby declare June 5 - 11, 2023 to be Seniors' Week in

Community						
Official Title						
Official Signat	ure			331 55		



AGENDA ITEM:

4.5

COUNCIL MEETING DATE: February 28, 2023

ITEM DESCRIPTION OR TITLE

Fort Air Partnership- Air Quality Monitoring Report December 2022.

RECOMMENDATION

THAT Council accept the Fort Air Partnership- Air Quality Monitoring Report as information.

BACKGROUND

The Fort Air Partnership completed their 2022 Air Quality Monitoring Report comparing the findings from the portable air monitoring station located in the Town of Lamont to communities of similar size and the same time frame when the station was in Lamont County.

The Town of Lamont air monitoring station recorded two exceedances of Particulate Matter over 3 days due to wildfire. These occurrences were on October 5 and 6, 2021 and August 22, 2022. The report outlines the risk to health rating where the Town of Lamont was in the low risk 98.4% of the time, 1.5% or 127 hours at moderate risk, and 0.07% or 6 hours considered high risk. These finding are slightly better percentages than the other 4 communities.

The full report attached outlines the full findings and comparisons including possible influence of the heartland and city of Edmonton.

COMMUNICATIONS

N/A

IMPLICATIONS OF DECISION

Provide accurate air quality information.

FINANCIAL IMPLICATIONS

N/A

POLICY AND/OR LEGISLATIVE REFERENCES

Strategic Plan 2023-2027- Goal: Enhance community sense of safety and the Town's emergency preparedness.



TOWN OF LAMONT COUNCIL AGENDA <u>REQUEST FOR DECISION</u>

ATTACHMENTS

Fort Air Partnership- Air Quality Report December 2022

Report Prepared By: Tyler Edworthy Director Operations and Infrastructure.

Approved by CAO:



FORT AIR PARTNERSHIP We Monitor the Air You Breathe

AIR QUALITY MONITORING REPORT | DECEMBER 2022

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Executive Summary

Fort Air Partnership (FAP) is a not-for-profit organization formed in 1997 to monitor the air people breathe within a 4,500 square kilometer Airshed located immediately north and east of Edmonton, Alberta. FAP operates a portable air quality monitoring station (also referred to as 'the portable') that can be sited throughout the FAP region, as well as outside FAP boundaries (if necessary, as per FAP's site selection matrix criteria), to monitor ambient air quality. The portable station was located in the Town of Lamont where it collected air quality measurements from August 1, 2021, to August 31, 2022.

Factors that led to the selection of the Town of Lamont as a location for the station included the following:

- There has been no continuous monitoring done historically in the Town of Lamont. The nearest continuous air quality monitoring station is the Lamont County site, approximately 7 km from the proposed site.
- Town of Lamont is the largest community in FAP without a continuous monitoring station.
- 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 (AOHI) is a measurement of air quality as it pertains to human health, substances monitored for during this project were included as a standard suite of parameters for a community AOHI station:

- Particulate Matter the Town of Lamont had comparable monthly PM_{2.5} averages to the other FAP community stations.
- Ozone the Town of Lamont had monthly O₃ averages that were generally higher than the other FAP community stations.
- Nitrogen Dioxide the Town of Lamont had monthly NO₂ averages that were generally lower than the other FAP community stations.
- Sulphur Dioxide monthly averages of SO₂ at the Town of Lamont were in the low to mid-range when compared to other FAP community stations.

 Hydrogen Sulphide – the Town of Lamont had comparable monthly H₂S averages to the other FAP community stations.

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 percent of the time, a slightly higher percentage than the four other FAP community stations used for comparison in this report. Less than 1.5 percent of time was recorded in the highrisk AQHI category. There were 6 hours of high-risk recorded due to smoke from wildfires outside of FAP and no instances of very high-risk AQHI recorded.

These results indicate that the air quality the Town of Lamont residents experience is of low risk to health the vast majority of the time.

Regional events such as wildfires and wintertime temperature inversions affected air quality in the Town of Lamont similarly to other communities throughout the FAP region. There were five such events, all due to wildfire smoke during the time of the project. The small number of air quality events monitored during the project were not enough to definitively compare the influence of regional events on the Town of Lamont relative to other communities in FAP.

1.0 About Fort Air Partnership

Fort Air Partnership (FAP) is a not-for-profit organization formed in 1997 to monitor the air people breathe within a 4,500 square kilometer Airshed located immediately north and east of Edmonton, Alberta, Canada. The FAP area (referred to as the 'Airshed' in this report) includes Fort Saskatchewan, Gibbons, Bon Accord, Bruderheim, Lamont, Redwater, Waskatenau, Thorhild, portions of the counties of Sturgeon, Westlock, Thorhild, Lamont, Strathcona, and Elk Island National Park. Alberta's Industrial Heartland is located within FAP's borders. FAP collects and reports on air quality data in a region encompassing one of the most concentrated industrial development areas in Alberta.

FAP's work is open and transparent, governed by a multi-stakeholder Board of Directors, guided by a scientific Technical Working Group and driven by national and provincial standards. Continuous data is collected 24-hours a day, seven days a week and made available to anyone.

2.0 Portable Station Program Description

FAP operates a portable air quality monitoring station that can be sited throughout the region to monitor ambient air quality. The portable station is equipped with the parameters required to calculate the AOHI including oxides of nitrogen (NO/NO_x/NO₂), ozone (O₃), fine particulate matter (PM_{2.5}), sulphur dioxide (SO₂) and hydrogen sulphide (H₂S), along with meteorological parameters including wind speed, wind direction, ambient temperature and relative humidity.

Equipment to measure other substances can also be added to the monitoring suite depending on the project objectives. All parameters, with the exception of fine particulate matter which is measured in micrograms per cubic metre (μ g/m³), are measured in parts per billion (ppb). A pinch of salt in a 10-ton bag of potato chips or one drop of ink in a large gasoline tanker truck would approximately equal one ppb. FAP has developed a **documented process to select sites** for the portable station.

3.0 Project Description



Project Objectives

The objectives of the Town of Lamont portable station ambient air monitoring project are to monitor and record air quality data to:

- Characterize the air quality the Town residents experience.
- Determine possible influence from sources in the Industrial Heartland.
- Determine possible effects of regional air quality events such as inversions and summertime smog.
- Compare air quality in the Town of Lamont with that of other communities of similar size in FAP; Bruderheim, Gibbons and Redwater.
- Compare data to the Lamont County station for the same time frame.
- Compare intensity of air quality events at the portable station and the Lamont County stations.

Station Location

In October 2020, a sub-committee of FAP's Technical Working Group (TWG) followed the selection process to identify the Town of Lamont among several candidate locations as the next site for the portable station. This recommendation was subject to finding a suitable location to place the shelter. The Town of Lamont had the highest ranking in the assessment for a number of reasons:

- There has been no continuous monitoring done historically in the Town of Lamont. The nearest continuous air quality monitoring station is the Lamont County site, approximately 7 km from the proposed site.
- Town of Lamont is the largest community in FAP without a continuous monitoring station.
- 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.

The Lamont County monitoring station shelter is scheduled for replacement in 2022. To ensure the network continues to meet FAP's monitoring objectives, a 12-month comparison of data from the Lamont County station and the portable at this location would help inform a decision on the possible relocation of the Lamont County Station into the Town of Lamont permanently in 2022.

Town of Lamont Information

- The Town of Lamont, in the southeast corner of FAP, is less than 10 kilometers from the FAP eastern border. It lies west and southwest of the developed Heartland Industrial Area.
- Elk Island and Bruderheim continuous air quality monitoring stations are approximately 10 and 11 km away, respectively.
- Town of Lamont population is 1,774 (2016)

FIGURE 3: PORTABLE STATION LOCATION

Figure 3 below shows the site for the portable monitoring station at the town tennis courts behind the Recreation Center at 4848-49 Street, near secondary Highway 831.



4.0 Project Monitoring Results

Results compared to Alberta Ambient Air Quality Objectives

Alberta Ambient Air Quality Objectives (AAAQOs) are regulatory tools established by the Government of Alberta, under the Alberta Environmental Protection and Enhancement Act. Alberta Environment and Protected Areas (AEPA) works with a variety of stakeholders, including other government departments, the scientific community, environmental organizations, industry and the public to develop and review objectives. AAAQOs provide environmental and human health protection to an extent technically and economically feasible, as well as consider what is socially and politically acceptable. AAAQOS are set well below what are considered emergency levels. FAP's <u>Exceedance Fact Sheet</u> provides more information about AAAQOS.

Table 1 below provides details of the AAAQO exceedances measured and reported at the Town of Lamont site including the dates, the number of exceedances of each type and the attribution assigned by FAP and submitted to Alberta Environment and Protected Areas.

TABLE 1: DETAIL OF EXCEEDANCES MEASURED AT THE TOWN OF LAMONT

Date	Substance	One hour	24 hours	Attribution
Oct. 5, 6 2021	PM _{2.5}	12	2	Wildfire Smoke
Aug. 22 2022	PM _{2.5}	0	1	Wildfire Smoke

All exceedances of the AAAQO registered at the Town of Lamont station were due to smoke from wildfires originating outside of FAP. This smoke also affected all other stations in the FAP monitoring network.

Table 2: Exceedances in FAP communities (August 2021 to August 2022) below shows all the instances where anexceedance of an AAAQO occurred in communities across FAP while the portable was in the Town of Lamont.

		Brude	rheim	Town of Lamont		Fort Saskatchewan		Gibbons		Redwater		
AIR QUALITY EVENT DATES	SUB- STANCE	1 Hour	24 Hour	1 Hour	24 Hour	1 Hour	24 Hour	1 Hour	24 Hour	1 Hour	24 Hour	AIR QUALITY EVENT CAUSE
Aug. 1-3, 2021	PM _{2.5}		2				2					Wildfire Smoke
Aug. 14-15, 2021	PM _{2.5}		1			4	2	1	2	2	2	Wildfire Smoke
Aug. 28, 2021	PM _{2.5}							2				Undetermined
Sept. 5, 2021	PM _{2.5}							1				Undetermined
Sept. 8, 2021	H ₂ S									1		Natural Due to Wetlands
Sept. 13, 2021	H ₂ S									1		Natural Due to Wetlands
Sept. 29, 2021	H ₂ S									2		Natural Due to Wetlands
Oct. 5-6, 2021	PM _{2.5}	4	1	12	2	10	2	6	1	11	1	Wildfire Smoke
Oct. 31, 2021	PM _{2.5}							1				Multiple Sources
Jun. 3, 2022	PM _{2.5}							1				Undetermined
Jul.14,18,23, 2022	H ₂ S									3		Natural Due to Wetlands
Aug. 3, 2022	H ₂ S									1		Natural Due to Wetlands
Aug. 16,18, 2022	H ₂ S									3		Natural Due to Wetlands
Aug. 20, 2022	03					3						Summertime Smog
Aug. 22,23, 2022	PM _{2.5}	1	1		1	3	2	2	1	2	2	Wildfire Smoke
Aug. 22,23,24, 2022	H ₂ S									7	1	Natural Due to Wetlands
Aug. 31, 2022	H ₂ S									1		Natural Due to Wetlands
TOTALS		5	5	12	3	20	8	14	4	34	6	111

TABLE 2: AAAQO EXCEEDANCES IN FAP COMMUNITIES (AUGUST 2021 TO AUGUST 2022)

At the FAP community stations, there were a total of 111 exceedances: 85 exceedances of an one-hour AAAQO and 26 instances of a 24-hour AAAQO. Of the one-hour exceedances, 68% were due to wildfire smoke from outside of FAP while 22% were due to wetlands, a natural source. The remainder of the exceedances were either undetermined or due to summertime smog.

Results Compared Against the Project Objectives

POSSIBLE INFLUENCE OF THE INDUSTRIAL HEARTLAND ON TOWN OF LAMONT AIR QUALITY

Figure 4 to Figure 7 below are windrose plots comparing data collected at the Lamont County station and the Town of Lamont station for the project period for wind speed, and hourly measurements of fine particulate matter, nitrogen dioxide and sulphur dioxide. The windrose plots are placed on the maps below relative to the locations of the two sites, Lamont County on the left and the Town of Lamont on the right. A note on reading windrose plots: The colours break down the pollutant concentration into six categories, with blue representing the lowest concentration and red the highest concentration. The length of each 'arm' represents the number of one-hour averages when the wind is coming from that direction. The longer the arm, the greater number of measurements recorded in that wind direction sector.

FIGURE 4: WINDSPEED PLOTS FOR LAMONT COUNTY VS. TOWN OF LAMONT

Figure 4 illustrates that the Lamont County site experienced higher windspeeds more often than the Town of Lamont site, this is to be expected since the Lamont County site is located in open farmland and at a higher elevation than the Town of Lamont site, while the Town of Lamont site was located within a more urban area, with surrounding structures in the area that tend to dampen higher wind speeds.

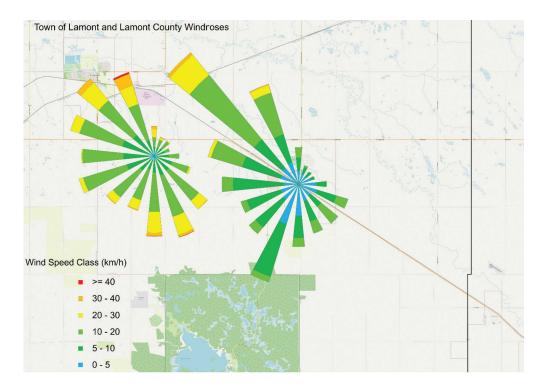


FIGURE 5: WINDROSE PLOT OF PM_{2.5} FOR LAMONT COUNTY AND THE TOWN OF LAMONT

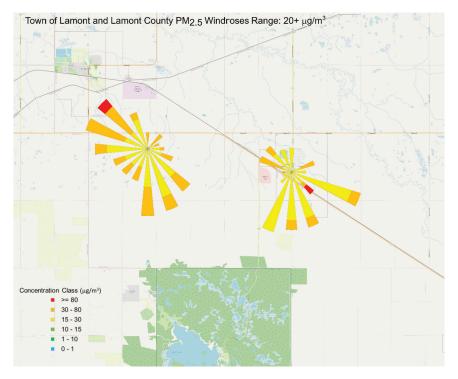


Figure 5 illustrates that the Lamont County site experienced higher PM_{25} readings than the Town of Lamont site, which could be expected as it is located closer to emission sources from both the Industrial Heartland and the City of Edmonton. Exceedances of the one hour PM₂₅ AAAQO occurred at both the Town of Lamont and Lamont County sites only once, on October 5, 2021 due to wildfire smoke from northeast Saskatchewan. This same event caused a 24 hour exceedance at each station, Lamont County on October 5 and Town of Lamont on October 6, 2021. Exceedances of the 24 hour AAAQO occurred at both sites August 22, 2022, again due to wildfire smoke. This time from western Alberta and British Columbia.

FIGURE 6: WINDROSE PLOT OF NO, FOR LAMONT COUNTY AND THE TOWN OF LAMONT

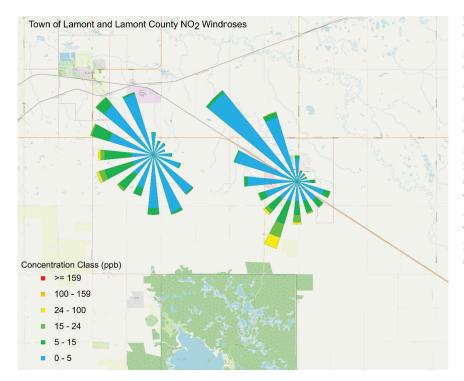


Figure 6 illustrates that NO₂ levels were higher at the Lamont County site when the wind was from the westerly quadrant, the general direction of the Industrial Heartland, while the Town of Lamont site had higher measurements when the winds had a more southerly component. The higher measurements at the Town site occurred almost exclusively during the winter months. This could be a result of nearby sources within the town, like structure heating including the nearby recreation complex.

FIGURE 7: WINDROSE PLOT OF SO, FOR LAMONT COUNTY AND THE TOWN OF LAMONT

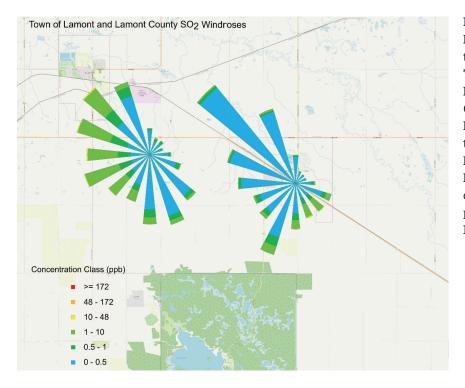


Figure 7 illustrates that SO_2 levels were higher in general at the Lamont County site than the Town of Lamont site. This is to be expected since the Lamont County site was initially chosen based on 1998 modelling results that indicated the area would likely experience slightly higher levels of SO_2 than the surrounding countryside due to its elevation and prevailing wind direction from the Industrial Heartland.

COMPARISON OF LAMONT AND LAMONT COUNTY SITES

One of the objectives of this project was to compare the existing Lamont County site with the Town of Lamont site to provide information to help guide a decision on whether to relocate the Lamont County permanent station to the Town of Lamont.

A series of histograms below compare the two sets of data for every hour for the provided data from both locations.

A note on reading histogram plots: A histogram is a representation of the distribution of numerical data that groups data into bins. In the plots below the data groupings are the result of a subtraction of the hourly average at the Town of Lamont from the same hour at Lamont County, so that a positive result means the Lamont County site registered a higher reading that hour than the Town of Lamont station, while a negative difference indicates the reverse. In the case of the $PM_{2.5}$ plot, the bins are groupings of readings within 5 µgr/ m3 i.e. -1 to -6 µgr/m³. The 'x' axis is the difference in ppb (µgr/m³ for $PM_{2.5}$). The 'y' axis is the number of readings at that difference or bin. In bins with no apparent columns shown, there were less than 5 or even only 1 result, for example the -53 to -46 bin in the $PM_{2.5}$ histogram.

The mean absolute error (MAE) is given in each plot. MAE is a metric of the difference in ppb (μ gr/m³ for PM_{2.5}) difference between the two stations. The lower the MAE the more similar the two data sets.

FIGURE 8: PM₂₅ HISTOGRAM

Figure 8 illustrates that there is a very slight bias of $PM_{2.5}$ measurements towards the Town of Lamont site, although an MAE of -0.13 µgr/m³ is very small rendering the two sites as almost identical in $PM_{2.5}$ measurements.



Figure 9 illustrates that O_3 is slightly biased towards the Lamont County site with more measurements higher there than the Town of Lamont site. This is to be expected as the Lamont County site is a rural site.

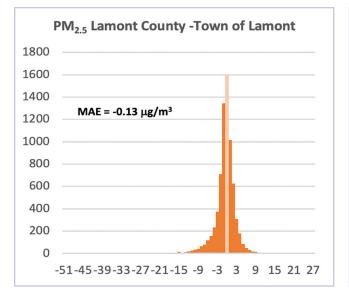
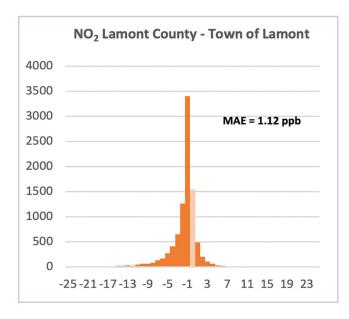


FIGURE 10: NO₂ HISTOGRAM

Figure 10 illustrates that NO_2 has an almost even distribution between the two sites with a slight bias towards the Town of Lamont site, which is to be expected since the Town of Lamont site is more urban than the Lamont County site and therefore would have more NO_2 emissions sources.



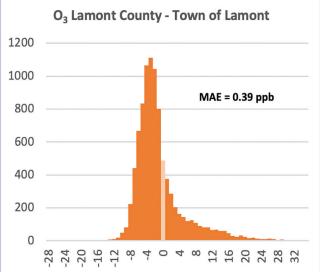
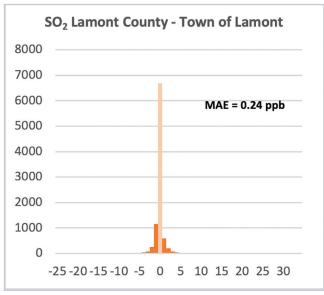


FIGURE 11: SO, HISTOGRAM

Figure 11 illustrates that SO_2 is biased towards the Lamont County site, which is to be expected.



10

COMPARE INTENSITY OF AIR QUALITY EVENTS AT THE PORTABLE STATION AND THE LAMONT COUNTY STATIONS

During this 13-month project there were only three days where AAAQO exceedances occurred at the Town of Lamont site.

- October 5, 2021 twelve (12) 1-hour PM_{2.5} exceedances , all due to wildfire smoke from northeast-Saskatchewan
- October 6, 2021 one (1) 24 hour exceedance also due to wildfire smoke from northeast Saskatchewan
- August 22, 2022 one (1) 24-hour PM_{2.5} exceedance due to wildfire smoke

There were exceedances of the AAAQO for $PM_{2.5}$ on 5 different days at Lamont County during the term off the project. All were due to wildfire smoke.

- August 2, 2021 one (1) one-hour exceedance for PM_{2.5}
- August 14 and 15, 2021 one (1) one-hour exceedance for PM_{2.5} each day
- October 5, 2021 one (1) one-hour PM_{2.5} exceedance
- August 22, 2022 one (1) one-hour PM_{2.5} exceedance

All of these exceedances were due to wildfire smoke from northeast Saskatchewan. Given the small sample size and the fact that smoke blanketed the entire Edmonton Metropolitan Area and indeed beyond for a few days, does not lead to a conclusion that the Town of Lamont experiences higher or more intense air quality events than Lamont County.

Results by Substance

The following section describes the results examining each compound measured by the portable station while at the Town of Lamont. Plots are provided showing measurements recorded at continuous stations located within communities in the FAP Airshed. Consult section 4.2.2 above for comparison of the Town of Lamont site with the County site. Not all continuous stations measure the same set of compounds. For instance, other than at the portable station, fine particulates are measured at four community stations, while hydrocarbons are only measured at two. The data shown in each plot covers the period August 1, 2021 to August 31, 2022, the time the portable was active at the Town of Lamont.

FINE PARTICULATE MATTER RESULTS

Fine particulate matter $(PM_{2.5})$ consists of tiny particles that are smaller than 2.5 microns. In comparison, a strand of human hair is about 100 microns in width, meaning that a $PM_{2.5}$ particle is approximately 1/40 the diameter of a human hair. Sources of $PM_{2.5}$ include soil, roads, agricultural dust, vehicles, industrial emissions, wildfire smoke, cigarettes, household heating, fireplaces and barbecues. Secondary particulate matter may also be produced in the atmosphere through several complex chemical processes involving other substances. Particulates can come from both solid matter and liquid aerosols.

In high concentrations, suspended particulates may lead to human health problems. Inhaling particulate matter can make breathing more difficult or may aggravate existing lung and heart problems. Smaller particles have the ability to travel deep into the lungs where they may cause permanent lung damage. Higher levels of $PM_{2.5}$ typically occur during winter temperature inversions when air movement is limited or in the summer months during periods of very warm weather with little or no wind. This is particularly problematic when coupled with smoke from wildfires.

 $PM_{_{2.5}}$ is measured and reported in micrograms per cubic meter (µg/m³) throughout this report.

Alberta has established a 24-hour AAAQO for $\text{PM}_{_{2.5}}$ at 29 µg/ $\text{m}^3.$

Alberta also has a one-hour average guideline in place for fine particulate at 80 $\mu g/m^3.$

The highest one-hour average $PM_{_{2.5}}$ recorded at the Town of Lamont station was 142.4 $\mu g/m^3$ and occurred on October 5th, 2021.

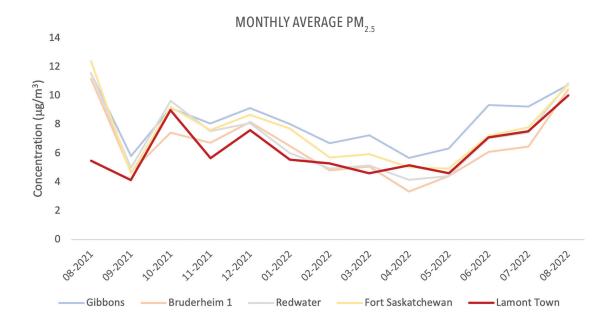
		Brude	rheim	Tow Lam	n of iont	Fo Saskato	ort :hewan	Gibb	oons	Redv	vater	
AIR QUALITY EVENT DATES	SUB- STANCE	1 Hour	24 Hour	1 Hour	24 Hour	1 Hour	24 Hour	1 Hour	24 Hour	1 Hour	24 Hour	AIR QUALITY EVENT CAUSE
Aug. 1-3, 2021	PM _{2.5}		2				2					Wildfire Smoke
Aug. 14-15, 2021	PM _{2.5}		1			4	2	1	2	2	2	Wildfire Smoke
Aug. 28, 2021	PM _{2.5}							2				Undetermined
Sept. 5, 2021	PM _{2.5}							1				Undetermined
Oct. 5-6, 2021	PM _{2.5}	4	1	12	2	10	2	6	1	11	1	Wildfire Smoke
Oct. 31, 2021	PM _{2.5}							1				Multiple Sources
Jun. 3, 2022	PM _{2.5}							1				Undetermined
Aug. 22,23, 2022	PM _{2.5}	1	1		1	3	2	2	1	2	2	Wildfire Smoke
TOTALS		5	5	12	3	17	8	14	4	15	5	

TABLE 3: AAAQO EXCEEDANCES AS FAP COMMUNITY STATIONS

Table 3 below shows $PM_{2.5}$ exceedances for the Town of Lamont and other FAP stations for comparison.

FIGURE 12: PM_{2.5} MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022

Figure 12 below shows the monthly average concentrations of $PM_{2.5}$ at Lamont and other air monitoring stations located in communities in the FAP network. $PM_{2.5}$ levels recorded at the Town of Lamont site were comparable to other communities in the FAP region, with monthly averages falling in the middle of all FAP community stations.



Ozone Results

Unlike other pollutants, ozone (O_3) is not emitted directly by anthropogenic (human made) activities. O_3 in the lower atmosphere is produced by a complicated set of chemical reactions involving oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) in the presence of sunlight. Significant natural sources of VOCs in remote and rural areas of Alberta are emissions from trees and vegetation.

 O_3 is also transported to the ground from the ozone rich upper atmosphere by natural weather processes. O_3 and substances that form ozone, such as NO_x and VOCs (referred to as ozone precursors), may also be carried from upwind sources such as urban centers and industrial complexes. This phenomenon can be observed in Alberta particularly in summer when warm temperatures (upwards of 30°C or more), coupled with light winds and abundant sunshine, result in an air quality condition referred to as summertime smog.

 O_3 concentrations are generally lower at urban locations than at rural locations due to the destruction of O_3 by nitric oxide (NO) generated by the combustion of fossil fuels. This is known as ozone scavenging. O_3 levels are generally higher during the spring and summer months because of increased concentrations coming from the upper atmosphere and more sunlight, which leads to more rapid chemical reactions that form O_q .

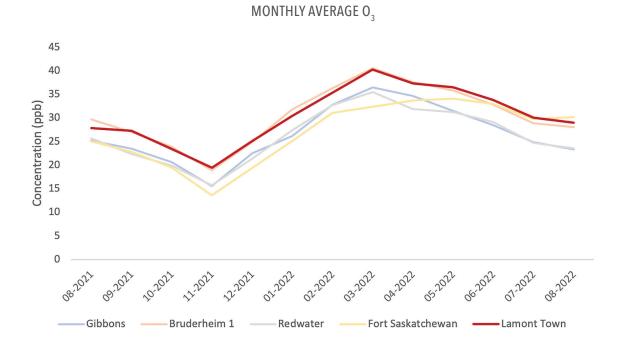
Clear skies provide ample sunlight, which combines with warm temperatures and a stable air mass, resulting in summertime smog. These weather conditions are conducive to the formation of secondary pollutants from ozone precursors emitted by multiple sources, both small and large, in the Edmonton Metropolitan Region. This smog takes some time to form and is often experienced dozens of kilometers downwind of the urban core.

At normal outdoor concentrations, O_3 is a colourless, odourless gas. However, O_3 does have a characteristically sharp 'very fresh air' odour at extremely high concentrations, such as that experienced immediately after lightning storms. O_3 is reported as parts per billion (ppb). Alberta has established the one -hour average concentration AAAQO for O_3 at 76 ppb.

The highest one-hour average O_3 recorded at the Lamont station was 76 ppb recorded on August 4, 2022. There were no exceedances of the AAAQO for O_3 during the project at the Town of Lamont or any other FAP stations.

FIGURE 13: 0, MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022

Figure 13 below shows the monthly average concentrations of O_3 at Lamont and air monitoring stations located in other communities in the FAP network. Monthly averages recorded at the Town of Lamont site were higher when compared to the rest of the community stations in the FAP network, which is to be expected since the Town of Lamont is further east from the Edmonton Metropolitan Area and industrial complexes than the other FAP stations. Therefore, there are two reasons for which O_3 would be expected to be higher; levels of ozone precursors (including as NO_x and VOCs) are lower further from urban areas, and there is less ozone scavenging in more rural areas as described above. Monthly averages in March and April are the highest for the entire year at all sites. This is not unexpected as early spring is considered 'ozone season' in Alberta as levels of O_3 in Alberta are strongly influenced by natural atmospheric fluctuations, with high levels of background O_3 occurring in the spring.



Nitrogen Dioxide Results

Nitrogen dioxide (NO_2) is a component of nitrogen oxides (NO_x) , along with nitric oxide (NO), dinitrogen monoxide (N_2O) and nitrogen pentoxide (NO_5) . Most NO in the ambient air will react readily with ozone to form nitrogen dioxide. NO_2 is a reddish-brown gas with a pungent odour and is partially responsible for the brown haze often observed near large cities. Sources of NO_x in Alberta include transportation, industry, natural gas combustion, heating fuel combustion (including home heating) and wildfires.

 NO_2 concentrations are generally higher at urban locations than at rural locations due to both the higher prevalence of NO_2 emissions, as well as a reaction

referred to as ozone scavenging, whereby O_3 is destroyed by nitric oxide (NO) to generate NO_2 .

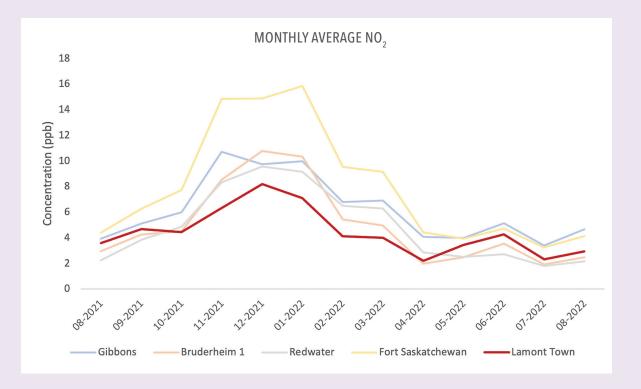
 NO_2 is reported as parts per billion (ppb). Alberta has established the following AAAQOs for NO_2 :

- One-hour average concentration at 159 ppb.
- Annual average concentration at 24 ppb.

The highest one-hour average NO_2 recorded at the Lamont station was 38.2 ppb on January 10, 2022. There were no exceedances of the AAAQO for NO_2 during the project at the Town of Lamont or any other FAP stations.

FIGURE 14: NO, MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022

Figure 14 below shows the monthly average concentrations of NO_2 at the Town of Lamont and other air monitoring stations located in communities in the FAP network. Monthly averages recorded at the Town of Lamont site were at the lower end when compared to the rest of the community stations in the FAP network.



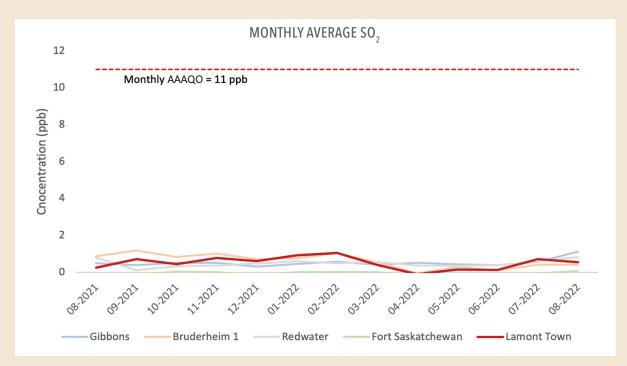
Sulphur Dioxide Results

Sulphur dioxide (SO_2) is a colourless gas with a pungent odour. In Alberta, natural gas processing plants are responsible for close to half of the SO_2 emissions in the province. Sources of SO_2 in the Airshed are primarily industrial, from both within and outside FAP's boundaries. SO_2 is reported as parts per billion (ppb). Alberta has established the following AAAQOs for SO_2 : The highest one-hour average SO_2 recorded at the Town of Lamont station was 29.9 ppb on September 29, 2021. There were no exceedances of the AAAQO for SO_2 during the project at the Town of Lamont or any other FAP stations.

- One-hour average concentration at 172 ppb.
- 24-hour average concentration at 48 ppb.
- 30-day average concentration at 11 ppb.
- Annual average concentration at 8 ppb.

FIGURE 15: SO, MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022

Figure 15 below shows the monthly average concentrations of SO_2 at the Town of Lamont and air monitoring stations located in other communities in the FAP network. SO_2 levels recorded at the Town of Lamont site were comparable to other communities in the FAP region, with monthly averages falling in the low to mid-range of all FAP community stations. There is a monthly average AAAQO for SO_2 as noted on the plot below. All stations registered less than 10% of the monthly AAAQO.



Hydrogen Sulphide Results

Hydrogen sulphide (H_2S) is a colourless gas with a rotten egg odour. Industrial sources of H_2S include fugitive emissions (leaks) from petroleum refineries, tank farms for unrefined petroleum products, natural gas plants, petrochemical plants, sewage treatment facilities and animal feedlots. Natural sources of H_2S include wetlands, swamps, and lakes.

 H_2S is reported as parts per billion (ppb) throughout this report. Alberta has established the following AAAOOs for H_2S :

- The one-hour average concentration at 10 ppb
- The 24-hour average concentration at 3 ppb

The highest one-hour average H_2S recorded at the Town of Lamont site was 9.7 ppb on August 6, 2021. There were no exceedances of the AAAQO for H_2S at the Town of Lamont during the project.

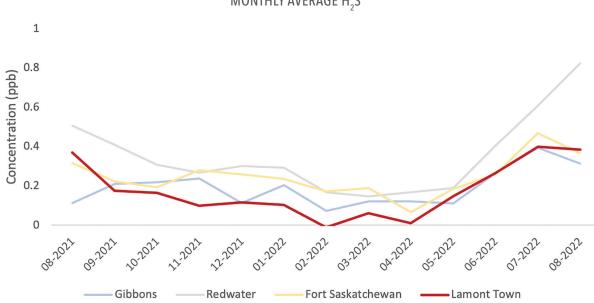
FIGURE 16: H₂S MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022

Figure 16 shows the monthly average concentrations of H_2S at the Town of Lamont and other air monitoring stations located in communities in the FAP network. The H_2S levels at the Town of Lamont do not differ substantially from other communities where H_2S is monitored within FAP's Airshed. All the monthly averages recorded at other stations varied by less than 0.5 ppb from those recorded at the Town of Lamont. When comparing the Town of Lamont site to the Lamont County site, H_2S varied by an average of 0.01 ppb between the two sites, with most months recording minimally higher measurements at the Town of Lamont site. As expected, higher levels of H_2S were recorded in the summer months. This is predominantly due to natural sources from ponds and wetlands that release H_2S in the early morning hours. Wetlands serve the important function of collecting organic material and reducing it to usable nutrients. Through this process, bacteria and fungi break down the structural elements of leaves and other materials, creating by-products that either enrich the soil with nutrients, or escape in the form of gases. Different types of wetlands house different bacteria and fungi, resulting in different gaseous by-products.

Rotting materials in the wetland are digested by aerobic bacteria (those that require oxygen). If there is sufficient oxygen, the bacteria will decompose all organic material without producing any odour. However, most wetlands develop stagnant water with a warm layer on top and a cooler layer below. The bottom layer will then run out of oxygen, leading to anaerobic decomposition which produces odours as a by-product (hydrogen sulfide, methane and ammonia).

When the weather changes seasonally or at nighttime due to air temperature drops, the top water layer cools. The warmer bottom water layer then rises to the top of the wetland, causing a sulfur, or rotten egg, odour.

FIGURE 16: H₂S MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022 (CONTINUED)



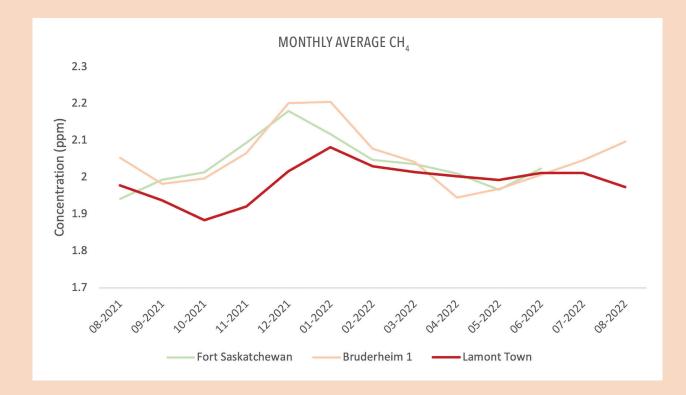
MONTHLY AVERAGE H_2S

Hydrocarbon Results

Total hydrocarbons (THC) refer to a broad family of chemicals that contain carbon and hydrogen atoms. Total hydrocarbons are the sum of non-reactive and reactive hydrocarbons. The major non-reactive hydrocarbon in the atmosphere is methane. Major worldwide sources of atmospheric methane include wetlands, ruminants such as cows, energy use, landfills and burning biomass such as wood. Methane is the primary component of natural gas.

FIGURE 17: METHANE MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022

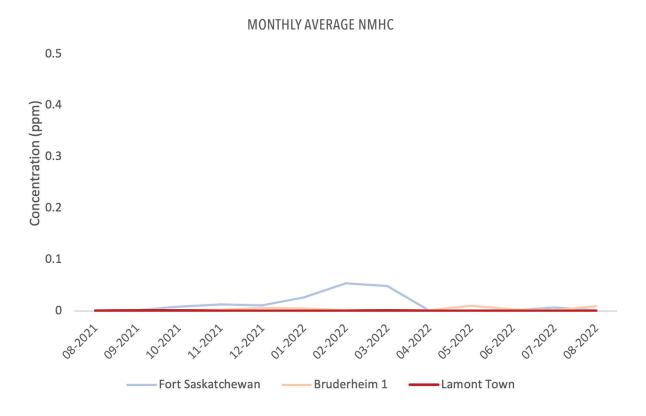
Figure 17 illustrates monthly average methane levels for the Town of Lamont and other communities throughout the network. Monthly averages recorded at the Town of Lamont site were within 0.2 ppm of other community sites in the FAP region.



The reactive (or non-methane) hydrocarbons consist of many volatile organic compounds (VOCs), some of which react with oxides of nitrogen in the atmosphere to form ozone. FAP measures a group of these nonmethane or VOC hydrocarbons at one station. These are detailed later in this section under Volatile Organic Compounds. While Alberta does not have ambient air quality objectives (AAAQO) for total hydrocarbons, methane or non-methane hydrocarbons, the oxidation of hydrocarbons in the atmosphere contributes to an increased amount of nitrogen oxides and ozone, which do have objectives. Additionally, there are objectives for specific reactive hydrocarbons such as benzene, toluene, ethyl benzene, xylenes, styrene and ethylene.

FIGURE 18: NON-METHANE HYDROCARBON MONTHLY AVERAGES FROM AUGUST 2021 TO AUGUST 2022

Figure 18 shows the monthly average concentrations of non-methane hydrocarbons at the Town of Lamont and other community air monitoring stations in the FAP network. All stations recorded monthly averages just barely above zero, with the Town of Lamont site recording values closest to zero.



Results vs. Air Quality Health Index

AQHI RISK DISTRIBUTION

The Alberta Government calculates an Air Quality Health Index (AQHI) using hourly measurements of fine particulate matter, ozone and nitrogen dioxide in the air. Alberta has augmented the national AQHI formulation to better account for rapidly changing air quality and to include hydrogen sulphide, sulphur dioxide and carbon monoxide. The AQHI is a tool that helps people understand what the local outside air quality means to their health using a scale from one to 10. The lower the number, the lower the health risk. An outdoor activity recommendation corresponds to each risk category.



20

Seven of FAP's continuous air monitoring stations provide data on substances required by the provincial and federal governments to calculate and forecast an AQHI for the region, although only the community stations are shown in the following tables. Daily and forecast ratings are updated every three hours. While the daily rating is based on what is occurring at individual stations, the forecast is a regional prediction of the average concentration of monitored substances at FAP stations.

The AQHI is designed as a communications tool. It is not used by environmental managers to monitor and measure long-term trends in air quality or to assign management actions.

During the 12-month period that FAP operated the portable in Lamont, an AOHI was calculated in the same manner as is done for the rest of the FAP region. The results compared to other community stations operated by FAP are summarized in Figure 19.

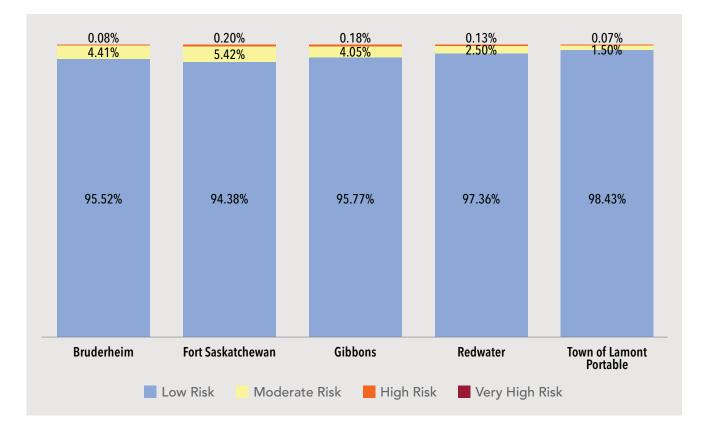


FIGURE 19: PERCENTAGE OF TIME IN EACH AQHI RISK CATEGORY AT FAP COMMUNITY STATIONS

The Town of Lamont, like all the community stations in FAP, recorded low risk to health AQHI ratings for the vast majority of the project. The Town of Lamont was in the low-risk category 98.4% of the time, a slightly higher percentage than the four FAP community stations used for comparison in Figure 19. There were 127 hours or 1.5% of the time rated as moderate risk while 0.07% or 6 hours were considered high risk. All high risk were due to wildfire smoke from outside of FAP.

AQHI High and Very High Risk events

TABLE 4: HIGH AND VERY HIGH-RISK AIR QUALITY HEALTH EVENTS

Table 4 below breaks down all the monitoring hours in the FAP network that resulted in an Air Quality HealthIndex calculation of high or very-high risk to health.

	Bruderheim		Town of Lamont		Fort Saskatchewan		Gibbons		Redwater			
AIR QUALITY EVENT DATES	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	TOTAL HOURS	AIR QUALITY EVENT CAUSE
Aug. 4 & 5, 2021	3										3	Summer-time Smog
Aug. 14, 2021		1			4		1		1		6	Wildfire Smoke
Aug. 28, 2021	-						2				2	Undetermined
Sept. 2 & 5, 2021	_						3				3	Undetermined
Sept. 8, 2021									1		1	Natural Due to Wetlands
Oct. 5 & 6, 2021	4		6		10		6		6		32	Wildfire Smoke
Oct. 31, 2021							1				1	Multiple Sources
Aug. 20-22, 2022	-				4		4		2		10	Wildfire Smoke
TOTALS	7		6		18		17		10		58	



FORT AIR PARTNERSHIP We Monitor the Air You Breathe

E: info@fortairmail.org P: 1-800-718-0471

fortair.org



COUNCIL MEETING DATE: February 28, 2023 ELECTED OFFICIAL: Jody Foulds REPORT PERIOD: February 14, 2023 to February 23, 2023

Boards and Committees:

• Economic Development Committee – February 21, 2023

Town of Lamont Business:

•

Professional Development (Workshops & Conferences):

• Brownlee – Emerging Trends – February 16, 2023

Lamont Functions and Events:

•



COUNCIL MEETING DATE: February 28, 2023 ELECTED OFFICIAL: Colleen Holowaychuk REPORT PERIOD: January 23-Feb 23, 2023

Boards and Committees:

- January 23, 2023 Lamont High School Council Meeting
- February 6, 2023 Town of Lamont Public Library Meeting
- February 15, 2023 Lamont Elementary School Council Meeting
- February 23, 2023 Lamont Catering Club Meeting

Town of Lamont Business:

•

Professional Development (Workshops & Conferences):

•

Lamont Functions and Events:

•



COUNCIL MEETING DATE: ELECTED OFFICIAL: Al Harvey REPORT PERIOD: February 22, 2023

Boards and Committees:

•

Items for Council Discussion:

(Requires Input from Council to Take Back to Boards and Committees)

Town of Lamont Business:

- Feb. 1 Chamber of commerce
- Feb. 17 Northeast Alberta Information HUB

Professional Development (Workshops & Conferences):

•

Lamont Functions and Events:

•



COUNCIL MEETING DATE: February 28, 2023 ELECTED OFFICIAL: Linda Sieker REPORT PERIOD, February 10, 2023 – February 23, 2023

Boards and Committees:

• N/A

Town of Lamont Business:

• N/A

Professional Development (Workshops & Conferences)

• N/A

Lamont Functions and Events:

- Feb 13 Lamont Farmers Market Meeting
- Feb 14 FCSS Connecting Generations Beaver Hill Lodge
- Feb 16 Lamont Food Bank Site Visit
- Feb 23 Lamont Health Care Centre Plaque Presentation

CAO REPORT FOR THE PERIOD ENDING February 22, 2023

HIGHLIGHTS:

February 9, 2023

- Weekly meeting with Director of Operations.
- Economic development meeting tourism.
- 2023 budget development.

February 13, 2023

• Farmers Market – public meeting.

February 14, 2023

- Weekly meeting with Deputy CAO.
- Weekly finance meeting.
- Meeting with High School.

February 16, 2023

Weekly meeting with Director of Operations.

February 21, 2023

- Weekly meeting with Deputy CAO.
- Economic development Board meeting

MEETINGS/EVENTS & PROFESSIONAL DEVELOPMENT:

N/A

CLOSED SESSION NOTICE

February 28, 2023

7.1 Bylaw Enforcement Report

(Advice from Officials)

• FOIP Section 24 – Advice from Officials

7.2 Northeast Regional Mayors, Reeves, Indigenous Leaders Caucus

(Advice from Officials)

• FOIP Section 24 – Advice from Officials

7.3 Specific Use Regulations

(Advice from Officials)

• FOIP Section 24 – Advice from Officials

7.4 2023 Municipal Requisition

(Advice from Officials)

• FOIP Section 24 – Advice from Officials

Motion to go into Closed Session:

"That Council convene in closed session pursuant to Section 197 of the Municipal Government Act to meet in private to discuss matters protected from disclosure by Section 24 of the Freedom of Information and Protection of Privacy Act at XXXX p.m."