



AGENDA

Monday, October 23, 2023, at 7:00 p.m.
Council Chambers at the Tom Hornecker
Recreation Centre, 2nd Floor, 2122 – 18 Street

COMMITTEE OF THE WHOLE OF COUNCIL MEETING

1. CALL TO ORDER & ADOPTION OF AGENDA:

- 1.1 Call to order
- 1.2 Adoption of Agenda (Res)

2. DELEGATIONS: None

3. PRESENTATIONS BY DEPARTMENTS:

- Administration: - Tax Incentive Bylaw options
- Common Services: - Update from Minister's Office - Extended Producers Responsibility (EPR)
- Compost and Yard Waste Materials
- Utilities: - Wastewater Treatment – Fournier de-watering
- Progress on potential Regional Water

4. MAYOR AND COUNCILLOR INQUIRIES:

5. NEXT COMMITTEE OF THE WHOLE MEETING: November 27, 2023.

6. ADJOURNMENT:



INFORMATION BRIEF

Meeting: October 23, 2023
Agenda Item:

Non-residential sub-class bylaw review

Background:

In 2020 council passed bylaw No. 1339/20 which was new bylaw intended to incentivize small businesses while also encouraging development of non-residential property that has been vacant for several years. In the three years it has been in place there has been varying degrees of success. A good number of small businesses have qualified for a decent discount while there has only been a small amount of movement on development of vacant non-residential properties.

In terms of numbers, the small business incentive looks as follows:

2021 – 52 properties filed the appropriate paperwork and received a 10% discount

2022 – 37 properties filed the appropriate paperwork and received a 10% discount

2023 – 50 properties filed the appropriate paperwork and received a 10% discount

(These numbers equate to approximately 53% of properties that are eligible, and the discount has equated to on average about \$11,500 that ends up being covered/spread among the residential tax base)

Under the bylaw, a small business property is defined as –

A property that is owned or leased by a business that:

- Held a valid Town of Nanton business license attached to the property on December 31 of the preceding tax year; and
- Had no more than ten (10) full-time employees across Canada on December 31 of the preceding tax year.

The criteria were set and designed to identify and reward active small businesses on non-residential properties. In review of the non-residential properties there is about 15 to 20% that don't qualify due to having more than 10 full time employees. There has been some argument that the discount offered is somewhat unfair, but this is what is currently in place.

In terms of the vacant non-residential sub-class, the numbers look as follows:

2021 – 0 properties (Two properties were issued letters, but took steps to avoid the sub-class)

2022 – 1 property

2023 – 1 property

(The two properties noted were taxed at twice the non-residential rate)

Of these properties, some small steps have been taken to become non-vacant but nothing really significant.

Under the bylaw, a vacant non-residential property is defined as –

A property must be one owned or leased by a business or person that:

- is located within the C1, C2 or IN Land Use Districts as defined by Town of Nanton Land Use Bylaw 1246/13, as amended; and
- was assessed at or above the median assessed value for all Non-Residential (Class 2) properties within the Town of Nanton assessment roll in the preceding tax year; and
- was subject to non-residential taxation in the two preceding tax years; and
- had no valid municipal or regional business license attached to the property in the two preceding tax years; and
- had not been connected to the water or sewer utilities or used under 10m³ metered water and sewer in the two preceding tax years; and
- is not currently assessed as an approved residential or other permitted use that does not require a business license; and
- has had no development permit approved in the preceding two tax years by the municipal subdivision and development authority.

These criteria were designed to identify genuinely vacant non-residential properties that have not been in commercial/industrial use or under development for some years.

In reviewing the non-residential properties, we found there were other properties that could have been identified but due to the median assessed value criteria, they were excluded. Of the non-residential properties approximately 37% fall below the median assessed value (\$168,500 in 2023), and of those about half do operate a small business leaving about 20 properties (excluding vacant bare land). In terms of properties above the median assessed value there is also approximately 17% that could be considered vacant non-residential, but are above the water use threshold so there is something going on but not necessarily a business operation. So, depending on how council feels and how much of an effort wants to be put forward to ensure vacant non-residential properties are developed, the criteria could be changed.

As we move forward into 2024, we believe we'll see similar numbers for the small business sub-class based on early returns of the statutory declarations. For the vacant non-residential sub-class, three letters were sent out – at this point one of the property owners has come forward with plans that will help them to avoid the sub-class but no word on the other two properties.

In terms of the tax rates, this is a council decision. So far, the discount approved has been 10% with double the rate for any vacant non-residential properties. Administration will bring further information back to council in the new year for a decision on this.

To summarize, uptake of the small business incentive has been low to medium with quite a few owners taking advantage but certainly a good amount not taking advantage. In terms of success with encouraging movement on the vacant non-residential properties, it hasn't been perfect. Moving forward there are changes that could be made depending on council's direction.

Prepared By: Clayton Gillespie, Corporate Services Manager

CAO Comments:

There are some signs that the vacant subclass does set a fire under some property owners to take action. In other cases, it simply sets them on courses toward seeking political solutions or fairly cynical workarounds. Administration would recommend changes to the vacant 'median assessed value' criterion before any more drastic alterations are considered.

On the other aspect, it is hard to evaluate whether the non-residential small business property class is a valuable business retention tool or not.

Additionally, as has been suggested before to try and stimulate non-residential development, a tax incentive similar to the Town of Fort Macleod has introduced under section 364.2 of the MGA is worthy of

serious consideration. Delaying the arrival of new assessment by a few years is likely one of the easier ways to avoid significant financial hardship from incentivizing development through taxation.



Date Signed: October 19th 2023

**TOWN OF FORT MACLEOD
PROVINCE OF ALBERTA
BYLAW NO. 1912**

**A BYLAW OF THE TOWN OF FORT MACLEOD IN THE PROVINCE OF ALBERTA,
TO ESTABLISH TAX INCENTIVES**

WHEREAS the Town of Fort Macleod considers it desirable to encourage the development of existing and new Business properties for the general benefit of the Town;

AND WHEREAS pursuant to Section 364.2 of the *Municipal Government Act*, RSA 2000, c M-26, Council may pass a tax incentives bylaw to encourage development and revitalization of non-residential properties for the general benefit of the Town;

AND WHEREAS the Town of Fort Macleod is responsible for carrying out measures that will develop and maintain a viable community pursuant to Section 3(c) of the *Municipal Government Act*, which includes measures to improve the long-term economic outlook for the Town,

NOW THEREFORE, the Council of the Town of Fort Macleod, in the Province of Alberta, duly assembled, enacts as follows:

1 Short Title

1.1 This Bylaw may be referred to as the "Tax Incentives Bylaw".

2 Definitions

2.1 In this Bylaw, unless the context otherwise requires:

- a) "Act" means the *Municipal Government Act*, RSA 2000, c M-26, as amended from time to time;
- b) "Administration" means the administrative and operational arm of the Town comprised of the various departments and business units and including all employees who operate under the leadership and supervision of the CAO;
- c) "Applicant" means a person who applies for an Exemption;
- d) "Application Fee" means the fee established by this Bylaw to be paid at the time an application is submitted pursuant to this Tax Incentives Bylaw;
- e) "Assessed Person" means an assessed person as that term is defined under Section 284(1) of the Act;
- f) "Business" means commerce for purposes of the production, storage, buying or selling of goods and services;
- g) "Chief Administrative Officer" or "CAO" means the chief administrative officer as appointed by Council, including the CAO's delegate;

- h) “Complete Application” means an application submitted pursuant to this Tax Incentives Bylaw that includes the Application Fee and the application requirements for non-residential tax incentives and the application form for non-residential tax incentives as set out in Appendices “A” and “B”, respectively, attached hereto;
- i) “Council” means all the councillors of the Town including the chief elected official for the Town;
- j) “Exemption” means an exemption from taxation for Non-residential Property as provided for in Part 10, Division 2 of the Act. For purposes of clarity, the exemption from taxation applies only to taxes imposed by the Town under Part 10, Division 2 of the Act and not any Provincial requisitions;
- k) “Expansion” means development that adds to an existing Structure to increase the Structure’s physical space for purposes of facilitating the Business within that Structure, or to replace an existing Structure for purposes of facilitating the Business within that Structure;
- l) “New Construction” means the construction of a new Structure for the purpose of establishing a Business within that Structure;
- m) “Non-residential Property” means non-residential as defined in the Act in respect of property;
- n) “Qualifying Property” means a Structure that is the subject of the New Construction or an Expansion;
- o) “Structure” means a structure as that term is defined in s 284(1)(u) of the Act that is Non-residential Property;
- p) “Tax Incentive Agreement” means a written agreement setting out the terms and conditions for an Exemption for the Qualifying Property; and
- q) “Town” means the Town of Fort Macleod in the Province of Alberta.

3 Purpose

- 3.1 The purpose of this Tax Incentives Bylaw is to allow tax incentives for Exemptions from taxation under Part 10, Division 2 of the Act for Qualifying Properties in the Town that meet the requirements of this Tax Incentives Bylaw.
- 3.2 Tax incentives under this Tax Incentives Bylaw will not be granted in respect of Non-residential property taxes imposed on land under Part 10, Division 2 of the Act.

4 Criteria for an Exemption

- 4.1 In order to apply for an Exemption, an Applicant must meet the following criteria:

4.1.1 the Applicant must be the Assessed Person for the Qualifying Property that is the subject of the application; and

4.1.2 the Applicant must have no outstanding monies owing to the Town.

4.2 In order to qualify for an Exemption, the Qualifying Property must meet the following criteria:

4.2.1 the Qualifying Property must be located within the geographical boundaries of the Town;

4.2.2 the development of the Qualifying Property must qualify as New Construction or an Expansion;

4.2.3 All required Town development approvals with respect to the development of the Qualifying Property must have been issued;

4.2.4 Eligibility for a Tax Incentive pursuant to this Bylaw requires the following criteria:

4.2.4.1 \$50, 000 increase in the assessed value of the Qualifying Property from the previous year resulting from New Construction or an Expansion; and

4.2.4.2 A building/ development permit has been obtained and executed by the Town of Fort Macleod.

4.2.5 The Applicant must submit a Complete Application in accordance with the terms of this Bylaw.

4.2.6 With respect to a Qualifying Property, only one agreement per three-year period is allowed.

5 Application for an Exemption

5.1 Applicants must submit a Complete Application to the CAO.

5.2 The Application Fee is \$100.00 DOLLARS.

5.3 Complete Applications must be received by October 1st of the year prior to the year in which the requested Exemption is to commence.

5.4 Complete Applications may be considered and approved in accordance with the requirements of this Tax Incentives Bylaw before construction on the Qualifying Property is complete, however, the Exemption will not apply until all construction on the Qualifying Property is complete and the development is inspected and approved for occupancy.

5.5 Notwithstanding the Complete Application requirements set out in this Bylaw, the CAO may require any additional information that, in the discretion of the CAO, is necessary to complete the application.

- 5.6 The CAO will advise Applicants in writing if their application is accepted for consideration. Applications accepted for consideration shall become the property of the Town and may not be returned.
- 5.7 The CAO has the discretion to reject applications that are incomplete or illegible.
- 5.8 Applicants whose applications are returned as incomplete or illegible may resubmit an application provided the application is resubmitted by the deadline provided in section 5.3 of this Bylaw.
- 5.9 The CAO will advise Applicants in writing with reasons if their application is rejected.

6 Consideration of Applications

- 6.1 Administration shall review the Complete Application to determine if it meets the criteria and requirements for an Exemption and provide a written report with recommendations to Council.
- 6.2 Council shall review the Complete Application and Administration's report and may:
 - 6.2.1 pass a resolution directing Administration to enter into a Tax Incentive Agreement; or
 - 6.2.2 pass a resolution refusing the Complete Application.
- 6.3 A resolution directing Administration to enter into a Tax Incentive Agreement must include:
 - 6.3.1 the three taxation years to which the Exemption applies;
 - 6.3.2 the dollar value of the Exemption for the Qualifying Property for each of the three years, whether based upon New Construction or an Expansion in accordance with the following:
 - 6.3.2.1 In the first taxation year identified in the Tax Incentive Agreement, the Qualifying Property shall receive a 100% Exemption on the incremental increase in the assessed value of the Qualifying Property between the taxation year immediately prior to the commencement of the New Construction or Expansion and the first taxation year identified in the Tax Incentive Agreement;
 - 6.3.2.2 In the second taxation year identified in the Tax Incentive Agreement, the Qualifying Property shall receive a 75% Exemption on the incremental increase in the assessed value of the Qualifying Property, such increase as calculated in the first taxation year of the Tax Incentive Agreement;

6.3.2.3 In the third taxation year identified in the Tax Incentive Agreement, the Qualifying Property shall receive a 50% Exemption on the incremental increase in the assessed value of the Qualifying Property, such increase as calculated in the first taxation year of the Tax Incentive Agreement.

- 6.4 A Tax Incentive Agreement shall be honored notwithstanding this bylaw being amended or repealed subsequent to entering into such agreement.
- 6.5 Administration shall provide written notice of a refusal to an Applicant which must include the resolution passed under section 6.2.2.
- 6.6 Administration shall provide written notice of a refusal to an Applicant which must include the resolution passed under section 6.2.2.

7 Tax Incentive Agreement

- 7.1 Where Council has passed a resolution approving an Exemption, Administration shall draft a Tax Incentive Agreement in accordance with the resolution of Council.
- 7.2 A Tax Incentive Agreement must outline:
 - 7.2.1 the taxation years to which the Exemption applies, which must not include any taxation year earlier than the taxation year in which the Exemption is granted;
 - 7.2.2 the extent of the Exemption for each taxation year to which the Exemption applies;
 - 7.2.3 a deadline for submission of proof that the Qualifying Property has been approved for occupancy;
 - 7.2.4 any criteria in Section 4 which formed the basis of granting the Exemption and the taxation year or years to which the criteria applies all of which are deemed to be a condition or conditions of the Tax Incentive Agreement the breach of which will result in the cancellation of the Exemption for the taxation year or years to which the criteria applies;
 - 7.2.5 In the event of a cancellation pursuant to section 8.1 of this Bylaw, any monies owed to the Town shall be immediately paid by the Applicant; and
 - 7.2.6 any other conditions Administration deems necessary and the taxation year(s) to which the condition applies.
- 7.3 Tax Incentive Agreements shall be executed by the chief elected official or their delegate and the CAO.

8 Cancellation of Tax Incentive Agreements

- 8.1 If at any time after an Exemption is granted, Administration determines that the Applicant or their application:
- 8.1.1 did not meet or ceased to meet any of the applicable criteria in Section 4 which formed the basis of granting the Exemption;
 - 8.1.2 Tax arrears are owing with respect to the Qualifying Property; or
 - 8.1.3 that there was a breach of any condition of the Tax Incentive Agreement,
- Administration shall make a recommendation to Council and Council may, by resolution, cancel the Exemption for the taxation year or years in which the criterion was not met or to which the condition applies.
- 8.2 A resolution passed by Council pursuant to section 8.1 must include reasons and identify the taxation year or years to which the cancellation applies.
- 8.3 Administration shall provide written notice of a cancellation to an Applicant which must include the resolution passed under section 8.1.

9 Review of Decision

- 9.1 Where an application has been rejected by Administration on the basis that it is incomplete, Applicants may apply to Council within 15 business days of receiving notice of the refusal to review the decision to reject the application.
- 9.2 Applicants may apply to Council within 15 business days of receiving a Tax Incentive Agreement to review the Tax Incentive Agreement on the limited issue of whether the Tax Incentive Agreement follows the direction of Council. Council may revise the Tax Incentive Agreement or provide direction to Administration to revise the Tax Incentive Agreement in accordance with Council's initial resolution.
- 9.3 Applicants may apply to Council within 15 business days of receiving a notice of cancellation to review the cancellation and Council may uphold or revoke the cancellation.
- 9.4 Applications for judicial review of a decision pursuant to this Tax Incentives Bylaw must be filed with the Court of Queen's Bench and served not more than sixty (60) days after the date of decision.

10 Review of Bylaw

- 10.1 This bylaw shall be reviewed by Council in a public Council meeting at least every second year from the date of passing of the bylaw for the purpose of assessing whether to amend or repeal the bylaw.

11 Severability

11.1 If any portion of this Bylaw is declared invalid by a court of competent jurisdiction, then the invalid portion must be severed and the remainder of this Bylaw is deemed valid.

12 Effective Date

12.1 This Bylaw shall come into force and take effect upon receiving third reading.

READ a First time this ____ day of _____ 2020.

READ a Second time this ____ day of _____ 2020.

READ a Third time this ____ day of _____ 2020.

SIGNED AND PASSED this ____ day of _____ 2020.

MAYOR

CHIEF ADMINISTRATIVE OFFICER

Appendix “A”
Application Requirements for Non-Residential Tax Incentives
Pursuant to the Tax Incentives Bylaw No. 1912

1. All applications for an Exemption under to the Tax Incentives Bylaw must include the following information:
 - a) a signed and dated application form:
 - b) the Application Fee:
 - c) if the Applicant is not an individual, an agent authorization form or directors’ resolution:
 - d) if the Applicant is a corporation, a corporate registry record of the Applicant dated within 60 days of the date of the application:
 - e) a land titles certificate for the lands on which the Qualifying Property is located dated within 60 days of the date of the application:
 - f) copies of all building/development permits issued with respect to the development of the Qualifying Property:
 - g) a description of the Business conducted or to be conducted in the Qualifying Property:
 - h) an indication of whether the development is New Construction or an Expansion:
 - i) an estimate of when the Qualifying Property will be approved for occupancy after completion of the New Construction or Expansion:
 - j) an explanation of how the application meets the criteria for an Exemption; and
 - k) With regards to Expansions the following additional information:
 - i. photographs of the Qualifying Property before the Expansion; and
 - ii. a financial summary and copies of receipts or paid invoices in relation to the development showing the location of the Expansion.
 - l) A copy of previous and current tax assessment notices showing an increase of \$50,000.00 in assessed value.
2. Applicants may provide any other material, including additional print, visual or audio-visual material, which the Applicant believes will support their application.

NOTE: Applications and all material provided will be included in reports to Council and the Council agenda packages that are available to the public.

All Qualifying Properties will be subject to inspection by Town staff to ensure the validity of the application.

Appendix “B”
Application Form for Non-Residential Tax Incentives
Pursuant to the Tax Incentives Bylaw No. 1912

Applicant Information:

Applicant Name:	
Registered Corporate Name, If Different:	
Legal Description of Assessed Property:	
Mailing Address of Assessed Property:	
Corporate Registry Office Address of Applicant:	

Agent Information:

Name of Authorized Agent for Applicant:	
Mailing Address for Agent:	
Email Address for Agent:	
Telephone Number for Agent:	

Personal Information required by Town of Fort Macleod application forms is collected under authority of sections 33(a) and (c) of the Alberta Freedom of Information and Protection of Privacy (FOIP) Act. Your personal information will be used to process your application(s). Please be advised that your name, address and details related to your application may be included on reports that are available to the public as required or allowed by legislation. If you have any questions, please contact the Town's FOIP Head at 780-553-4425 or l.gillingham@fortmacleod.com.

Provide, or append, a brief description of the Business:

The Applicant is applying for a three-year (2020, 2021, 2022) tax incentive for: (choose applicable)

- New Construction Expansion

Describe, or append, an explanation of why you are seeking an Exemption and how you meet the criteria for one of the tax incentive programs listed above:

What date is the subject property expected to be approved for occupancy:

Indicate if the application includes the following:

- | | |
|---|---|
| <input type="checkbox"/> Building/Development Permits (required) | <input type="checkbox"/> Application Fee (required) |
| <input type="checkbox"/> Tax Assessment Notices (required) | <input type="checkbox"/> Land Titles Certificate (required) |
| <input type="checkbox"/> Agent Authorization Form/Directors' Resolution (if applicable) | <input type="checkbox"/> Photos (if applicable) |
| <input type="checkbox"/> Financial Summary and Receipts/ Invoices (if applicable) | <input type="checkbox"/> Other materials (optional) |
| <input type="checkbox"/> Corporate Registry Record (if applicable) | |

Date of the Application

Signature of Applicant (or Applicant's Agent)

Print Name of Applicant (or Applicant's Agent)

FOR OFFICE USE ONLY

DATE APPLICATION WAS RECEIVED

NAME OF RECIPIENT



October 13, 2023

Dear CAO's,

This notification provides high level updates about changes coming for municipalities and recycling. Further information on Extended Producer Responsibility (EPR) can be found on the Alberta Recycling Management Authority (ARMA)'s [EPR webpage](#) or by contacting epr@albertarecycling.ca.

1. Register for EPR: October 2 to December 31, 2023

Your community has choices to make:

- For communities to be eligible for EPR they must indicate their interest by registering with ARMA.
- **Step 1: Pre-registration.** This allows ARMA to initiate one-on-one support to guide you through the process. Pre-registering should be understood as an expression of interest—as the pre-registration process will begin a robust and supported intake and onboarding process where ARMA works with each registrant.
- **Step 2: Registration.** This requires more information on the current state of your municipality's recycling programs.
- Pre-registering and registering occur in the same window of time—Oct 2 to December 31.
- Municipalities may de-register as well.
- Municipalities who choose not to register by December 31st, 2023, will continue to pay for their recycling systems, but have the opportunity to register at a later date.
- Regional waste commissions can register member municipalities on their behalf.
- Registering does not require a council decision as the community is not committed to anything at this stage.
- Municipalities can prepare for the EPR registration process. Some questions to answer are:
 - Contact information for your municipality.
 - Total population.
 - Service levels in your municipality.
 - Number of residential addresses and the number receiving paper and plastic recycling collection.
 - Number and location of depot recycling collection sites.

2. What is EPR?

Extended Producer Responsibility is exactly what it sounds like. Currently, producers sell products. When products reach their end of life, they become waste—waste that is managed by municipalities. EPR extends the responsibility of end-of-life products back to producers.

- Alberta's EPR system covers Packaging and Paper Products (PPP), and Hazardous and Special Products (HSP). In each of these categories, only specific materials are designated for management by EPR. Not all materials currently handled by municipalities in these categories are covered by the regulations.
- EPR regulations only apply to residential materials—not institutional, commercial, nor industrial materials.
- EPR is a voluntary program that saves municipalities money.



3. Steps after registration:

- For those municipalities who want EPR in their community, producers will become responsible for recycling. However, there is a range of ways producers become responsible for operations, including:
 - Hiring a municipality or a private service provider to perform specific functions, including collection.
 - If a municipality becomes a service provider to a producer it does so under a mutually agreeable, contractual relationship directly between the producer and the municipality.
- Under EPR, producers, not the municipality, are responsible for achieving its regulated outcomes.
- Producers must submit their plans to ARMA to collect and manage their designated materials by April 1, 2024—then become responsible for collection and management of recyclables by April 1, 2025 (for single family residential) from municipalities.
- Municipalities must agree to enable producers to become responsible for the collection and management of designated material before any changes to local system operations can be made.
- Producers must implement plans for multi-unit residential on April 1, 2025—where the community authority is currently providing recycling services.

4. Key background:

- In November 2022, the Government of Alberta passed regulations to reduce the financial burden of recycling on municipalities by shifting the physical and financial responsibility of collecting, processing, and recycling materials—from municipalities to producers.
- EPR has been implemented in other provinces and is now coming to Alberta. Further information on EPR can be found on the Alberta Recycling Management Authority's [EPR webpage](#).
- The Alberta Recycling Management Authority (ARMA) is the designated oversight body for EPR. This means they will be responsible for ensuring that regulated parties undertake their required roles in the system and achieve the results required by regulation.
- The entities responsible for implementing recycling collection services are called “Producer Responsibility Organizations” (PROs).

5. Benefits of EPR:

While EPR is not a new concept for producers or suppliers, it is a new concept for Albertans. EPR presents several positive opportunities for Alberta municipalities:

- It will increase the recycling of products across the province as producers take responsibility for recycling the products they create—meaning fewer products end up in our landfills or disposed in other ways.
- It is a step towards creating an Albertan circular economy—as products that previously ended up in the waste stream are redirected and recycled into new products to be used again and again. This means more job creation, more economic investment, and larger economies.

6. Important EPR Contacts

- Alberta Environment and Protected Areas (Regulations):
 - AEP.RecyclingRegulation@gov.ab.ca
- Alberta Recycling Management Authority (Oversight):
 - epr@albertarecycling.ca
 - Contact for registration details.

- Circular Materials (Operations):
 - ABoperations@circularmaterials.ca
 - Producer Responsibility Organization for Packaging and Paper Products.
 - Circular Materials Alberta Municipal Working Group. Oct 25. Zoom webinar for municipalities meeting series to support ongoing collaboration with municipalities as we prepare for program implementation. This will be a forum to share feedback, raise questions and directly engage with our team. [Register here.](#)
- Product Care (Operations):
 - alberta@productcare.org
 - Producer Responsibility Organization for Hazardous and Special Products.

Waste collection programs in Alberta municipalities can vary widely, so each municipality will have different impacts and considerations to work through. If you have any questions please contact Kris Samraj, Policy Analyst (780-431-5431, kris@abmunis.ca).

EPR Milestones



Sincerely,

Dan Rude
Chief Executive Officer



Information Brief

Meeting: October 23rd 2023

Agenda Item:

YARD WASTE PROGRAM: Finding a way forward

PURPOSE:

Council have essentially suspended the status quo of the Yard Waste Operation from October 31st, not ruling out permanent closure. Administration does not believe that permanent closure or loss of the facility is necessary, but Council does need to make decisions around levels of service to the community and what is a reasonable cost for same.

BACKGROUND / IMPLICATIONS:

For the Operations Department, there needs to be a long term decision and commitment to both the operation and financing of how the service is provided.

This has meant resolving questions around:

- Collection of the materials;
- Processing or disposal of the materials pursuant to any regulatory requirements if applicable;
- The operator;
- User Pay principle

Collection of materials & users

At present, the Town accepts the unsupervised drop-off of:

- Grass clippings
- Branches up to a 5cm diameter (no wider than a pop can)
- Leaves and other natural debris (no kitchen or construction waste)

Recycling user fee (residential only)	\$13 bi monthly (\$78 per annum)
Revenue generated	\$72,000 per annum
Recycling pick-up and disposal costs	\$46,000 per annum
Remaining funds for wages, disposal and mulching of existing pile, insurance and other.	\$26,000 per annum
Implications: residential customers contribute approximately \$4.75 bi-monthly for the yard waste service, while non-residential customers are not paying any fees at all; residential customers who do not use the service still pay.	

On grounds of cost and capacity, a curbside collection program for any aspect has been ruled out for the time being. Were such a program to be introduced, it would inevitably involve an additional user fee for all participating residents and businesses, which is typically a hard sell in the community. A curbside collection program would additionally be unable to deal with trees/ branches, meaning that an additional program **would still be required if trees and branches were still part of the accepted 'level of service'**. Administration urges Council to hold off on consideration of a green bin program until more is known about the Recycle Alberta/ provincial Extended Producer Responsibility (ERP) program. While unlikely, we cannot exclude the possibility that Nanton may end up completely out of the recycling collection business, meaning that there could be greater budgetary capacity for a green bin program in future.

Possible RECOMMENDATION: *that the provision of a costed green bin plan is requested during the garbage and recycling services tender this coming spring for Council to review for information on costs and the likely revenue requirements.*

The status quo of a drop-off is somewhat economic if it **does not** need to be perpetually manned and user fees charged. The introduction of drop-off location user fees to offset costs would create additional overhead for the management of that site and system. The introduction of a manned yard waste area with user fees would be the only viable approach to reducing drop-off by non-residents of Nanton and the dumping of other waste.

Possible RECOMMENDATION: *that the Town move away from the Yard Waste area being open 'all season' from April to October and instead offer two (2) seasonal openings and collections (spring and fall):*

- Spring collection: yard waste area open for one 3-5 days and Public Works undertake a curbside/ laneway collection with parameters.
- Fall Collection: yard waste area open for one 3-5 days and Public Works undertake a curbside/ laneway collection with parameters.
- Two concentrated processing and disposal windows a year.

This would take Public Works or Parks and Recreation away from other duties for several days at a time and public messaging would need to be very strict. CPO enforcement would likely need to be applied to people trying to have garbage collected during this work until community familiarity grows.

Processing and Disposal

Administration remains confident that a reasonable annual disposal cost of \$20-30,000 is viable if the backlog of branches and debris can be dealt with. Great progress was made in 2021, but contractors did not fully complete the work as they had underestimated the work involved. A compost program is not viable and it is unwise to use chips derived from diseased trees and shrubs. Additionally, there are questions over how long diseased trees and shrubs should be allowed to remain in the open at the Yard Waste area as the wind does carry bacterial spores, for example. Then there's the potential fire hazard brought by excessive accumulation.

Possible RECOMMENDATION(S):

- *Budget a larger sum for backlog and current year disposal in 2024*

Operator

This program can only continue by the Town paying for either significant in-house staffing and equipment costs or adequate contractor costs (or combinations of both). Positions or duties related to this would be seasonal in nature. The Town has no firm standing arrangements for the staffing required long term or the contractor support for this activity.

As local and external landscaping firms (who pay no fees) potentially have the most economically at stake with this facility, the yard waste area could be leased or licensed out to a private company to operate it as part of their business. Unlike the Town, they would have more freedom to choose how such a facility could viably operate. If there is no profitable angle, there could be a way that the Town could subsidize an operation to ensure some public access to the facility. However, any private actor faces largely the same challenges as the Town in making the operation affordable/ viable.

Possible RECOMMENDATION(S):

- *Put the Yard Waste facility out to RFP for public-private partnership use*

User Pay Principle

It is fairly clear that there would not be much appetite for a new user revenue stream when the Town is approaching a renewal year for solid waste collection services (an increase for garbage and recycling user fees should be anticipated). If Council chose to fund enhanced levels of service from user fees rather than taxation, the options would likely be:

- Point of disposal fee based on a cubic metre charge: only true users of the facility billed, out of area users excluded. Implications: low chance of cost recovery as facility must be staffed or somehow securely automated in this situation (much higher level of service).
- Yard waste disposal user fees, based on actual costs, to all residential households and businesses, irrespective of service use. Implications: will be considered unfair by those not utilizing the service (although this is perceptually little different from it being funded by taxation – it's just more front and centre).

Unfortunately, the fairest option (point of disposal fees) also results in the greatest operating costs. If user fees were based on actual costs but set too high for the user, financial viability problems would occur almost immediately.

ADMINISTRATION ADVICE:

Administration would be keen to continue with the status quo with enough funding to process and dispose of the debris backlog. Alternatively, reducing the level of service to spring and fall collection windows also seems a reasonable way to de-escalate costs without abandoning residential users. Separate transactional agreements (fee based) granting season long access could be developed with commercial actors seeking broader access. The biggest challenge for a small crew is in house processing and disposal – they either need the equipment to do it expeditiously or disposal needs to be outsourced at cost.

Prepared By: Neil Smith

Date: 2023-10-18





INFORMATION BRIEF

Meeting: October 23rd 2023

Agenda Item:

Wastewater Treatment pilot for sludge de-watering

PURPOSE:

Administration is moving forward to engaging a consulting engineer for project management now that the pilot project of a de-watering press has proven to be a success.

Background from this June:

“Given the challenges at the wastewater treatment plant, within the 2023 budget council approved, and operations completed a week-long sludge de-watering pilot study using a rotary press back in early April. The results were quite positive, and operations recommended at the services committee meeting of April 20 that a month-long dewatering pilot be completed to properly determine the appropriate size of equipment that would be needed to handle the Town’s dewatering needs.

The quoted price for the month-long dewatering pilot is \$65,350. This is a significant cost but would be partially offset by the reduced costs to haul sludge for the month (approximately \$12,500). This is currently not a budgeted expense so would likely require reserve dollars. As council is aware the grant application the Town submitted to upgrade the de-watering process was approved and will help to cover almost 62% of the total project costs to upgrade the wastewater treatment plant dewatering capabilities. The original application was for a centrifuge to deal with the sludge but because of the success of the week-long pilot, a rotary press is the preferred option.

Due to this, administration reached out to the AMWWP program to see if the month-long dewatering pilot would be eligible to be covered as part of the overall project. Fortunately, we were advised that these costs could be covered as the rotary press serves the same purpose as the centrifuge (just a different technology). Therefore, if approved there will be no additional need for more reserves than what council has already committed too. There is the ability/choice to pay for the dewatering pilot out of reserves (or elsewhere) instead of utilizing grant funding, but the only real benefit to doing this would be that there would be a little bit extra funding for the overall project. The quoted amount (\$65,350) is small in terms of the overall project and so administration would recommend utilizing the grant funding.

Operations had been advised the rotary press would be available as of July 1 so with council approval operations would secure the unit and get it in place for the month of July. Upon the completion of the pilot operations will review the data, advise the AMWWP program and will then get to work on determining if the technology will be the long term solution. As mentioned, the use of the rotary press will negate the need for the normal sludge hauling and so this will result in approximately \$12,500 in operational savings. This can potentially go into reserves to help cover our portion of the project or used to offset the general wastewater budget in 2023.”

Factors that changed in execution:

- Dewatered sludge hauling was hindered due to the size limitations of the waste bin (12 cubic yards) available for hauling. Because of this, Utilities management decided to extend the rotary

filter press rental by three weeks (seven week total rental), as sludge concentrations within the plant would not be sufficiently decreased in a four week period.

- The wastewater plant has been operating outside of its design parameters (too thick of a sludge concentration within the process) since its commissioning, and once the rotary press rental unit was decommissioned on September 29, Utilities staff were able to resume the manufacturer-recommended chemical clean of the membrane cassettes. Visual inspection of the membranes during the chemical clean revealed they had been prematurely packed full of solids and were unable to efficiently remove and return wastewater effluent to Mosquito Creek. The manufacturer-recommended clean-in-place chemical cleans were no longer sufficient, and a membrane removal and manual cleaning was required. To accomplish this, half of the plant had to be taken offline. This would have been impossible to accomplish had we not removed the backlog of waste sludge within the plant with the rotary filter press rental unit, as well as continuing to truck away sludge to drain the digester tanks and allow for temporary storage for incoming influent while performing the manual cleaning activities.
- Decreased membrane filtering capabilities mean that the wastewater plant can barely keep up with daily raw sewage influent, and any plant shutdown due to process faults or additional influent (ex: heavy rain event) results in several days' worth of backup. Prior to receiving word that the rotary filter press had become available, the Town had reached out to neighboring communities to determine their capacity for emergency sludge hauling in order to get wastewater plant flow back under control.
- A manual cleaning of half of the wastewater plant's membranes was performed the week of October 9. As a result of the manual clean, membrane filtering performance has nearly returned to new condition, and the plant often goes into standby/idle because of its vastly improved filtering capacity. The other half of the plant's membranes will be manually cleaned the week of October 30.

Key findings:

- Wastewater treatment plant performance has significantly improved with the decreased sludge concentration within the plant (nearly 50% decrease).
- Since August 2022, the Town had been non-compliant on a portion of the wastewater Approval (elevated Ammonia-Nitrogen and Total Nitrogen concentrations, due to the inability to properly aerate the sludge because of its thickness). As of August 2023, the Town is compliant in all aspects of its Approval due to the plant's ability to adequately aerate the thinner waste sludge in the process stream.
- Sludge that was processed through the rotary press unit entered at about 1.5% solids and was discharged between 17-19% solids (roughly 10x solids increase, being conservative). This means that for every 12 cubic yard bin of dewatered sludge being sent to landfill was roughly equivalent to 120 cubic yards (92 cubic meters, or just under 4 Wildrose truckloads) of raw waste sludge being trucked away.
- Each 12 cubic yard bin of dewatered biosolid cost approximately \$1600 for disposal (\$260 for bin delivery, \$1300 for landfill). We should consider this worst-case cost as there are less expensive places to dispose of waste sludge – staff were unable to send our biosolids there because of time constraints, largely to do with lab analysis requirements of a different location.
- The polymer required for dewatering is about \$1800/drum, and we went through 5 drums over the 6-week period. Polymer usage decreased as the program went on and we began optimizing the process, with our permanent unit we would more likely use about a drum/2-3 weeks.
- Once a permanent dewatering unit is in place and part of daily operations, biosolid production would likely be under 50% of what was produced during the rental period. This is based on sludge biosolid production from the Rockyview County wastewater treatment facility (also in possession of a Fournier rotary filter press). The Rockyview County facility has a daily wastewater influent flow of approximately 3000 m³/day and hauls away three 12 cubic yard bins of dewatered sludge per week for disposal. The Town wastewater plant receives just over 1000m³ of influent/day, therefore biosolids hauling would likely be approximately once per week.

- The Manager took a sample of our dewatered biosolids to a dehydrating pilot unit in Calgary to see how much mass and volume reduction could be obtained. After drying the biosolids for about 12 hours, an 85% reduction (6.7x) in both volume and mass was achieved (see attached photos). Management would like to include the purchase of a dehydrating unit (approximately \$300,000) in our package we send out to the engineering firms. The dehydrated sludge would become somewhat valuable as it could then be used as a fuel for a burner unit (ex: kiln in a concrete facility, or fuel for power generation) so it greatly increases options for disposal. Worst case, our trucking/disposal costs would be significantly reduced if we continue to choose to dispose of it at the landfill. There is also a potential opportunity to apply for carbon credits, as methane-generating organic material within the biosolids would be diverted from landfill. A sludge volume and mass reduction of over 50x could potentially be achieved with the combination of dewatering and dehydration units. A dewatering unit is required prior to dehydrating, as the dehydrator unit requires a stackable solid for deposition into it.



10 pails of biosolid reduced to 1 ½ pails after dehydration

Does Council have any direction to give before Administration engages a managing engineer for the project?

- REFER to (Administration or Committee) _____
- DEFER the matter to the Council meeting of (date) _____

Financial (GL# / Amount): _____

Communications/PR:

Applicable Legislation:

Attachments: Fournier proposal for dewatering press

Prepared By: Bill Woytiuk; Neil Smith

Date: October 18th 2023

APPROVED BY: Neil Smith, Chief Administrative Officer:





Town of Nanton, AB

Subject: Nanton, AB - Proposal for Dewatering Rental Equipment

As requested, Fournier Industries Inc. is pleased to send you our proposal, for the rental of our dewatering equipment. Please note that equipment availability will only be reserved once the rental week(s) will be confirmed and payments (A) and (B), as described below, are received. We kindly suggest that you reserve the rental equipment as soon as possible to ensure its availability.

Temporary rental of a sludge dewatering unit

(A) Initial flat rate:

Transport at site **round-trip:**
26,500\$ CA, estimated

Nb: Full transport cost will be assumed by the lessee. Price will be communicated and agreed upon, prior to signing of contract.

(B) Rental price for 1st week:

1st week of operation, including, Fournier's operators during (day shift 8hr/day), and training assistance and support of your staff.
12,750\$ CA

(C) Rental price per additional calendar week(s):

Operation, without, Fournier's assistance nor presence at site. Equipment availability up to 24/7, operated by renter's own personal.
8,700\$ CA, unlimited amount of weeks

Minimum rental period is three (3) weeks, including at minimum above fees of:

1 x (A) + 1 x (B) + 2 x (C). = 26,500 + 12,750 + (2*8,700) =56,650\$ CA

Subject: Nanton, AB - Proposal for Dewatering Rental Equipment

GENERAL NOTES FOR THE RENTAL OF EQUIPMENT

1. Prices are valid for a period of 30 days.
2. Our price includes delivery of equipment to the site (item A, above).
3. Payment terms:
 - a) Initial flat rate (A) and rental price for 1st week (B) shall be paid to confirm the order, net 30 days
 - b) Rental price per additional week(s) (C) shall be paid weekly, net 30 days
4. Taxes and fees

All prices mentioned above do not include any sales taxes or other subject charges that may be imposed on the goods and / or services provided under this agreement.

5. Limitation of liability

The company "Fournier industries Inc." cannot, under any circumstances, be held responsible for:

- a. damages claimed from you by a third party; or,
- b. indirect, special, punitive or exemplary damages, including loss of profits or income or the inability to achieve projected savings or for interruption of operations; or,
- c. damages related to losses (i) for the use of your property (ii) for financing (iii) related to business opportunities (iv) for damage to reputation, and / or (v) for reduced productivity; or,
- d. damage resulting from the modification of a product supplied by "Fournier industries Inc." or from improper use or lack of maintenance; or,
- e. damages for an amount exceeding the lesser of (i) the amounts that you have actually paid to the Company " Fournier industries Inc." for the supply of goods and / or services covered by the contract (the "contract ") following this proposal; and (ii) 10% of the total contract price.

This limitation of liability clause applies regardless of the basis of your claim, including breach of contract and tort or quasi-tort.

6. Applicable laws

This contract is governed by the internal laws of Quebec, to the exclusion of any other law, in particular to the exclusion of the application of conflict of law rules and the United Nations Convention on Contracts for the International Sale of Goods. (Vienna, 1980) (CISG). In addition, the parties agree, voluntarily and intentionally, to waive any right to

Subject: Nanton, AB - Proposal for Dewatering Rental Equipment

hold a jury trial in connection with any dispute relating to this contract or its fulfillment, negotiation, oral or written statements or any action or gesture of one of the parties.

If you need a project specific arrangement or a more detailed drawing, we can provide it to you upon request.

Trusting that our offer meets your requirements, do not hesitate to contact me if more information is required. Please accept the expression of my best regards.

FOURNIER INDUSTRIES INC.



Francis Caouette
Sales and Development Director
Dewatering Equipment

FC/

Encl. Appendix A - Mobile Dewatering Unit Description

c.c.:

Ms. Hettie Sacre, Atlantic Purification Systems Ltd, Sales Representative, Phone (902) 469-2806
Mr. Ian Johnston, Atlantic Purification Systems Ltd, Environmental Sales Specialist, Phone (902) 469-2806 x 115
Mr. David Cox, P. Eng., Dewatering equip. Process Engineer, Fournier Industries Inc., Phone (418) 423-4241 X 3560

Subject: Nanton, AB - Proposal for Dewatering Rental Equipment

Appendix A

MOBILE DEWATERING UNIT DESCRIPTION

1. PHYSICAL DIMENSIONS

Length.....: 16, 2 m (53 feet)
Width door closed.....: 2, 7 m (9 feet)
Height: 4 m (13 feet)

2. WEIGHT

Trailer weight with equipment: 16000 kg / 35200 lbs

3. POWER REQUIREMENTS

Voltage/Amps (3 Phases).....:
If heating is required: 480V/60A or 600 V/50A
If heating is not required: 480 V/50A or 600 V/40A

In the event that it is 208 V or 240 V / 100A, the electric wire will not be provided, the necessary size for this wire must be certified for a minimum load capacity of 100A. 3 separate wires red, black, white & ground (no welder type connector).

N.B.: Please have an electrician on-site and available at the expected time of the equipment arrival to execute the electrical connection.

4. CONNECTIONS

Description	Diameter	Type of coupling(*)	Available length
Electrical Connection	N/A	30 Amp	46 m (150')
Feed sludge	7,6 cm or 10,2 cm (3" or 4") (M ou F)	Quick connect	61 m (200')
Filtrate return line	150 mm (6") (M ou F)	Quick connect	46 m (150')
Wash water	3,81 cm (1,5") (M or F)	Quick connect	46 m (150')

(*) The fittings can be Male or Female, of "Quick connect type / Cam fitting type"

5. FEED SLUDGE

Install at the outlet of the slurry pump or at the end of the slurry supply line a 7.5 or 10 cm (3 "or 4") quick coupling (M or F). The piping and the lobe-type pump supplying the rotary press from the sludge tank will be supplied by Fournier.

Subject: Nanton, AB - Proposal for Dewatering Rental Equipment

6. FILTRATE RETURN

The filtrate must be drained by gravity through a 150 mm (6 ") line (M or F). A floor drain or sewer near the location of the equipment is preferable. Ensure that a low filtrate discharging point is accessible to maintain gravity flow.

7. WASH WATER

The process requires clean running water for sealing pumps, diluting polymers and washing. The water will be supplied from a 3.81 cm (1.5 ") fire hose. Provide for an available water source nearby, such as a fire hydrant. The piping will be provided by Fournier.

8. DISPOSAL OF CAKE

A conveyor unloads the dewatered cake on the side of the trailer at 1.67 m (5'-6 ") from ground level or higher if required (adding an inclined conveyor). A tractor or loader bucket works very well or better still a dumpster or truck. The customer is responsible for providing the cake container and the cost of cake disposal.



DIMENSIONS

Length: 16.2 m (53 feet)
Width door closed: 2.7 m (9 feet)
Height: 4.0 m (13 feet)



CONNECTIONS

Connection may be male or female, type Quick Connect/ Cam Lock.

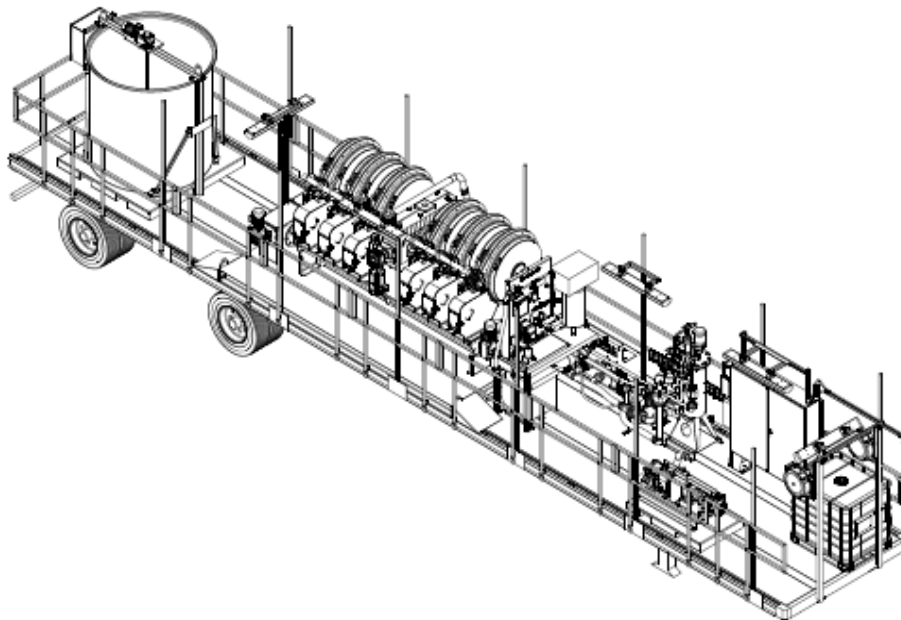
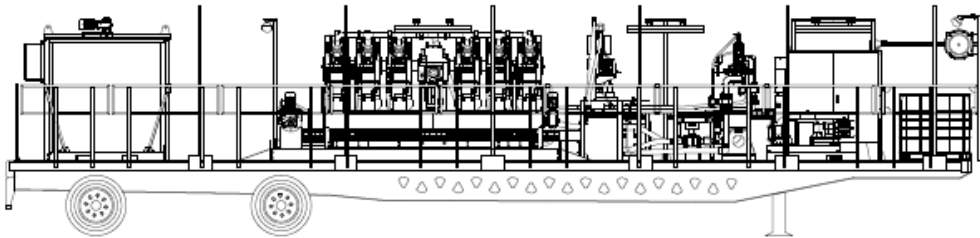
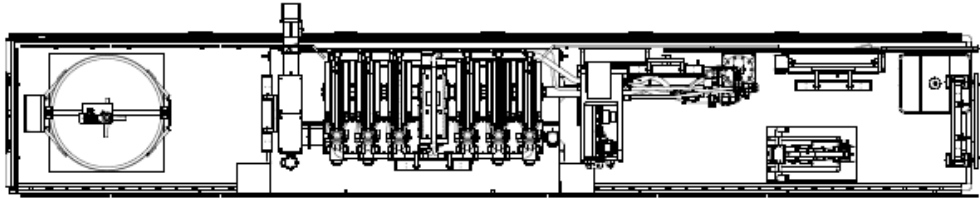
480V/60A or 600V/50A

Four separate wires, red, black, white and ground (no welded connections). Please plan to have an electrician on site.

RAPID INSTALLATION

Piping provided by Fournier Industries.

Subject: Nanton, AB - Proposal for Dewatering Rental Equipment





REQUEST FOR DECISION

TO: Mayor and Council
FROM: Reiley McKerracher, Director of Municipal Services
SUBJECT: Town of Nanton - Regional Water Study

Date:	October 5, 2023
Meeting Date:	October 23, 2023

RECOMMENDATION: **WHEREAS** the Town of Nanton has completed a regional water study which indicates a pipeline from High River to Nanton for treated water may be feasible,

AND WHEREAS the Town of Nanton has requested formal support from the Town of High River to be able to pursue Water for Life funding for the regional potable water connection between the two municipalities.

BE IT RESOLVED THAT Council give conditional support to the Town of Nanton's regional potable water initiative. The conditions are as follows:

1. Proving the Town of High River's aquifer has the necessary capacity under drought conditions to service the Town of Nanton,
2. That an understanding be found with regards to a future rate structure,
3. That the Town of High River water treatment plant be stress tested to ensure adequate filter capacity,
4. That no Town of High River water license will be used to service Nanton, or any other outside user,
5. That Nanton must provide their own water license to be applied to Town of High River Headworks, and
6. All work shall be completed at no cost to the Town of High River, excluding staff time.

CHIEF ADMINISTRATIVE OFFICER'S COMMENTS: Administration supports the proposed recommendation.

IMPLICATIONS OF RECOMMENDATION

GENERAL:

The Town of Nanton has significant issues with regards to its water supply. In trying to address the supply challenges (both quality and quantity), Nanton has looked at a regional pipeline to the Town of High River.

ORGANIZATIONAL:

There is minimal administrative impacts for proceeding with the initiative at this time. Most work will be led by Nanton as they receive funding.

FINANCIAL:

While Nanton's initiative would not have an immediate capital cost to the Town of High River, it may accelerate improvements needed. The rates changed to Nanton would need to take this into account.

POLICY:

This is a regional initiative that supports the Calgary Metropolitan Regional Board's vision.

Previously the Town of High River passed the following resolution with respect to future water agreements:

Council Resolution 198/2012 Carried April 23rd, 2012

Council resolves that any future water policy or agreement placed before it conforms to the following conditions and restrictions before approval:

1. That the first priority of present and future use of water resources is for the needs of the residents and ICI establishments within the boundaries of the Municipality of High River subject to the extent of the water supply and licensed allocation to withdraw.
2. That policies be adopted to enhance and extend the water supply by promoting best management practices of water use through innovation, conservation, efficiency and productivity in accordance with the Provincial "Water for Life" strategy as amended over time.
3. That any external exports of water to outside users be subject to the following conditions:
That any allocation be predicated upon the availability of water supply after the first priority (1. Above) is taken out;
That if any allocation results in capital expenditures for utility system upgrades, those costs be borne by the proponents;
That any allocation be supported fully by water license(s) that pertain to the Highwood River;
That a set term agreement be signed by the proponents incorporating the above conditions and any others that may pertain to each specific situation.

Strategic Plan

IMPLEMENTATION:

Administration will inform the Town of Nanton of Council's decision. No further action is required from the Town of High River at this time.

BACKGROUND:

The Town of Nanton has completed a study to evaluate the viability of a regional water system between Nanton and High River. See Attachment 1 for the complete study.

The issue of long-term water security has been of concern to the Town of Nanton for several years. The Town of Nanton explored a regional potable water connection from High River to Nanton to address its water security concerns.

The study looked at the following and concluded:

1. The capacity for the Town of High River's water treatment plant was evaluated. The facility requires some upgrades, such as distribution pump upgrades. However, sufficient filter capacity existed for serving both municipalities until 2042. The reports suggest stress testing of High River's water treatment plant take place to confirm the filter capacity.

2. Hydrogeological review that indicated High River's well field could support the additional draw of Nanton.
3. Upon review of the cost (\$14,951,000) and funding (regional grants), the project is feasible.

Following the issuance of the final draft of the report on August 1st, 2023 and subsequently on August 14th, 2023, the following resolution was carried by the Council of Nanton:

RESOLUTION #207 - 23/08/14 - Czop

Moved that Council adopt a formal approach of pursuing a treated water supply via pipeline from the Town of High River within the next 4-8 years to replace the Mosquito Creek and Spring Line raw water supplies, subject to periodic review. CARRIED.

With the passing of the above resolution, the Town of Nanton has now asked for formal support from the Town of High River (Attachment 2).

While drafting the report, the Town of Nanton consulted with High River Administration. Through this process, MPE Engineering, on behalf of the Town of Nanton, examined the capacity of High River's water treatment plant, distribution network (and impacts a connection on fire flows) and aquifer. Upgrades to High River systems will require additional wells, a new high lift pump and a filter backwash upgrade. These upgrades are included in the cost.

There was considerable discussion regarding the Town of High River's aquifer. To give this context, we must first review existing licensing applied to the Town of High River's headworks and the Sustainable Water study completed in 2013 (Worley Parsons provided a Supplemental Update in 2015; see Attachment #3) regarding High River's aquifer.

The licenses that are assigned through the Town of High River headworks are as follows:

Licensee	License	Annual Licensed Diversion (m3)
High River	00045674	2,522,273
High River	00045675	990,910
High River	00045676	1,110,910
Cargill	00242986	1,110,134
Cargill	00028480	1,180,442
Foothills County (Cayley)	00294438	86,344
Foothills County	00017846	119,648
Foothills County (Springbank)	00017172	2,467
Nexen Inc.	00030425	69,075
Foothills County	DAUT0012242	25,533
Foothills County	DAUT0012272	70,310
Foothills County	DAUT0012266	25,534
	Total	7,313,580

The table above does not allow for other licenses in the aquifer, such as Corbett (36,000 m3), Highwood Distillers (55,000 m3), or Highwood Golf and Country Club (123,348 m3), which pull from the aquifer but not through our headworks.

The County's agreement (2022) for water with the Town permits an annual quantity of 370,044 m3 per year (excluding Cayley and Cargill). As such, they still have the ability to transfer up to an additional 126,552 m3 in licensing to the Town of High River's headworks.

Worley Parsons concludes from the aquifer model that our simulated annual production is 9,380,000 m3 annually. During drought conditions, this capacity drops to **6,310,000 m3** annually. Assuming all licenses were fully utilized and the County transferred the additional 126,552 m3, this would require water conservation measures that achieved a 15% reduction in consumption annually.

The difference between the total licensed quantity versus the aquifer's drought capacity is assumed to be made up by water conservation measures. The Town of High River's aquifer is fully licensed based on its drought capacity.

MPE Engineering's sub-consultant, Waterline Resources, reviewed the Town of High River's sustainable water study and suggested that should the model used in the study be refined, there may be more water than stated. They pointed to some likely conservative assumptions and the need for further pump testing. Furthermore, Nanton's water currently comes from Woman's Coulee, which comes from the Highwood River. Since Woman's Coulee and High Rivers aquifer are fed from Highwood River, this amounts to transferring a diversion point, not a new allocation being applied to the aquifer. The aquifer model does include the Woman's Coulee diversion. Waterline Resources were confident that should an updated hydrogeological investigation be undertaken and the High River aquifer model refined, it would show the water required by Nanton would be available.

High River Administration recommends that proceeding with the Nanton project is feasible, contingent on first updating the High River aquifer model. The Town of Nanton wishes to pursue Water for Life grant funding for the project. Beyond staff time, there should be no direct cost to the Town.

Report / Document:

Attached:

Available:

KEY ISSUE(S)/CONCEPT(S):

Does the Town of High River have sufficient raw water to supply the Town of Nanton, and if so, should the Town of High River provide potable water to the Town of Nanton.

DESIRED OUTCOMES:

That Council conditionally support the Town of Nanton's request to pursue Water for Life funding for the regional potable water connection between the two municipalities.

COUNCIL'S OPTIONS:

1. Council could choose to support the proposed recommendation.
2. Council could choose to not support the proposed recommendation and defeat the motion.
3. Council could choose to refer the proposed recommendation to a Committee of the Whole meeting for further discussion.

RECOMMENDED:

That Council provide conditional support to Nanton's regional water initiative.

COMMUNICATIONS:

Following Council's decision, a letter will be written to the Town of Nanton indicating if we support the initiative, and if we do, what the Town of High River conditions are.

Reviewed by:

- David Crain, Manager of Financial Services
- Reiley McKerracher, Director of Municipal Services
- Sheron Ward, Legislative & Advisory Services Advisor
- Jody Hipkin, Manager of Legislative and Advisory Services
- Chris Prosser, Chief Administrative Officer

Status:

- Approved - 12 Oct 2023
- Approved - 12 Oct 2023
- Approved - 12 Oct 2023
- Approved - 13 Oct 2023
- Approved - 17 Oct 2023



23RD STREET/ HWY 2 NORTH WATER MAIN BREAK

OCTOBER 2023: TOWN OF NANTON OPERATIONS DEPARTMENT



- On the morning of October 12th, a main break of scale was observed at the intersection of Highway 2 North and 23rd Street.
- Water Treatment Plant production was subsequently reviewed and seen to have spiked the previous evening around 8pm.
- This was an unusual time for a break as we tend to see them in spring during the ground thaw.
- That immediately got everyone wondering “why now?”



- The initial repair that Thursday appeared to go well, although the main had appeared to have inexplicably developed a four (4)inch diameter hole that had brought water to the surface.



- When crew repressurized the line, however, water began seeping in from the east bank of the excavation, so they shut the isolation valves and left the area to re-evaluate how to repair the line.
- Added urgency to this repair emerged when a hitherto unknown line under Highway 2 North (unmapped in Town records and GIS) ceased providing water to its one user on the other side.



- The following week, everyone was back. The entire area was this time excavated, revealing the additional water loss and a VERY old, pitted cast iron reducer.





THE ENTIRE AREA WAS REMOVED AND REPAIRED WITH PVC PIPE. THE SCALE OF THE EXCAVATION BECOMES EVIDENT.



- The circled area on the sewer line below shows a large crack in that line.
- This was where much of the leaking municipal water was going, likely over some years and not coming to the surface.
- It was only when the water main hole blew to the four inch size that water came to the surface on October 12th.



- Early flow data from our Water Treatment Plant shows that this has been losing water for a very long time until it was isolated and repaired. Our normal daily water production had lately been 1100 m³/day. Daily production volumes have now fallen below 1000 m³/day so this one leak has represented a loss of 150-200m³/day (over 50,000 m³/ per annum). For comparison, an average household might use 100 m³ a year or about 0.3 m³/day.
- It is not likely our only undiscovered leak out there, but this is major progress for the Town.

What this experience has really emphasized is that:

- Locating and repairing leaks not only helps conserve municipal water, but also potentially reduces stress on the Wastewater Treatment Plant, thereby reducing costs over time.
- There remains a small but significant amount of unmapped older infrastructure buried in parts of Nanton that are progressively failing and causing water loss that is hard to trace.
- It remains very hard to justify comprehensively resurfacing areas of roadway where this kind of situation may be lurking.

-
- CONTACT PUBliCWORKS@NANTON.CA FOR MORE INFORMATION
 - SIGN UP FOR TOWN ALERTS AT WWW.NANTON.CA – NOT ALL WATER SHUT-OFFS ARE PLANNED WITH ADVANCE NOTICE

