

TOWN COUNCIL AGENDA November 25, 2021

7:00 p.m. YouTube Live

Let us begin by acknowledging that we are gathered today in Mi'kma'ki. The ancestral, present and future territory of the Mi'kmaw people. Today, we gather with the intent followed by the living Peace and Friendship Treaties - with respect, cooperation and coexistence.

Call to Order

1 Approval of Agenda

2 Minutes

2.1 Regular Meeting - November 9, 2021

3 Presentations

<u>4 Correspondence – Action Items</u>

<u> 5 Correspondence – Information Items</u>

- 5.1 Anjel Van Damme & Vince Brandolini 66 Clairmont Street Development
- 5.2 Elna Wiles 66 Clairmont Street
- 5.3 Pamela Browne 66 Clairmont Street Development
- 5.4 Laurel Haslett 66 Clairmont Street Development
- 5.5 Nona Alexander 66 Clairmont Street Development
- 5.6 Logan Webb, NS Public Works Highway Programs Response to Request to Sand Hwy 3 Within Watershed
- 5.7 Judy Savin 66 Clairmont Street Development
- 5.8 Darrell Dawson 66 Clairmont Street Development
- 5.9 Jean Rattray 66 Clairmont Street Development
- 5.10 NSFM Monday Memo November 8, 2021
- 5.11 NSFM Monday Memo November 15, 2021

6 Staff Reports

- 6.1 Staff Report to Council November 25, 2021
- 6.2 2022 Town of Mahone Bay Meeting Schedule
- 6.3 Staff Report Vaccination Policy
- 6.4 Staff Report Water System Loss Audit

7 Council Items

- 7.1 Mayor Devenne Committee Application
- 7.2 Councillor Carver Recreation Funding

8 Committee Reports

- 8.1 Asset Management Committee Draft minutes November 10, 2021
- 8.2 Oakland Lake Watershed Advisory Committee Draft Minutes November 15, 2021
- 8.3 Lunenburg County Senior Safety Program Monthly Report October 2021
- 8.4 Oakland Lake Watershed Advisory Committee Meeting November 15, 2021
- 8.5 Municipal Joint Services Board Meeting Minutes June 23, 2021
- 8.6 Municipal Joint Services Board Meeting Minutes July 28, 2021

9 New Business

10 Closed Session

10.1 MGA 22(2)(e) - Contract negotiations

The Regular Meeting of Town Council for the Town of Mahone Bay was held on Tuesday, November 9, 2021 at 7:03 p.m. broadcast via YouTube live.

Present:

Mayor D. Devenne
Deputy Mayor F. Kangata
Councillor A. Burdick
Councillor P. Carver
Councillor J. Feeney
Councillor R. Nowe
Councillor K. Wilson
CAO, D. Heide
Town Clerk, M. Hughes

Absent:

Gallery: online

Land Acknowledgement

Let us begin by acknowledging that we are gathered today in Mi'kma'ki. The ancestral, present and future territory of the Mi'kmaw people. Today, we gather with the intent followed by the living Peace and Friendship Treaties - with respect, cooperation and coexistence.

1. Agenda

A motion by Councillor Carver, seconded by Councillor Nowe, "THAT the agenda be approved as amended to include a Notice of Motion under New Business."

Motion carried.

2. Minutes

A motion by Councillor Feeney, seconded by Councillor Burdick, "THAT the minutes of the October 28, 2021 regular meeting of Council be approved as presented."

Motion carried.

A motion by Councillor Wilson, seconded by Councillor Carver, "THAT the minutes of the November 1, 2021 special meeting of Council be approved as presented."

Motion carried.

3. Presentations

Maritime Bus Advisory

Council received a presentation from Michael Graves, from the Maritime Bus Advisory, with an update on the service.

<u>4. Correspondence – Action</u>

4.1 Karen Pinsent, Father Christmas Season – Request for Town Beautification Support.

A motion by Councillor Wilson, seconded by Councillor Feeney, "THAT Council provide the \$900 budgeted amount for Father Christmas activities, plus the addition of \$1200 to purchase banners as requested in the letter from Ms. Pinsent, as well as the in-kind time from Town staff."

Motion carried.

A motion by Burdick, seconded by Kangata, "THAT Council refer Christmas decorations to the 2022/23 budget process."

Motion carried.

5. Correspondence - Information Items

5.1 Sue Brumwell – Clairmont Street Development.

5.2 Barbara Minard – Cherry Lane one-way street.

5.3 NSFM Monday Memo - November 1, 2021

5.4 NSFM Resolutions Report

A motion by Councillor Burdick, seconded by Councillor Carver, "THAT the letter from Sue Brumwell be forwarded to the Planners and that she be advised that this has happened."

Motion carried.

A motion by Councillor Carver, seconded by Councillor Nowe, "THAT Council receive and file correspondence items 5.2 – 5.4."

Motion carried.

6. Staff Reports

6.1 Council Report

Council received the Staff Report to Council for November 9, 2021.

A motion by Councillor Feeney, seconded by Councillor Carver, **"THAT Council accept the staff report to Council for information."**Motion carried.

6.2 Signage Policy

Council reviewed a staff report and draft Signage Policy which was originally presented to Council at their October 28, 2021 regular meeting.

A motion by Councillor Feeney, seconded by Councillor Nowe, "THAT Council defer consideration of this policy until the December 2021 meeting at which time staff will provide a revised draft to include acceptable locations on public property for municipal election signage."

Motion carried.

6.3 OH&S Policy

Council reviewed a staff report and draft OH&S Policy which was originally presented to Council at their October 28, 2021 regular meeting.

A motion by Councillor Feeney, seconded by Councillor Carver, "THAT Council adopt the Occupational Health and Safety Policy as presented."

Motion carried.

7. Council Items

7.1 Mayor Devenne - Committee Application

A motion by Councillor Feeney, seconded by Deputy Mayor Kangata, **"THAT Council appoint Annette St. Onge to the Asset Management Committee."** Motion carried.

8. Committee Reports

8.1 Policy and Strategy Committee

Council received the draft minutes of the October 25, 2021 meeting of the Policy and Strategy Committee.

A motion by Councillor Carver, seconded by Councillor Burdick, "THAT Council formally eliminate the Age Friendly Community Committee and the Economic Development Committees."

Motion carried.

A motion by Councillor Feeney, seconded by Councillor Carver, "THAT Council direct staff to develop a revised terms of reference for a Climate Action Committee to be presented to Council."

Motion carried.

A motion by Councillor Carver, seconded by Councillor Burdick, "THAT the next agenda of the Policy and Strategy Committee include the committee policy and the CAO/Council relationship policy."

Motion carried.

8.2 Police Advisory Board

Council received the draft minutes of the October 28, 2021 meeting of the Police Advisory Board.

A motion by Deputy Mayor Kangata, seconded by Councillor Burdick, "THAT Council direct staff to prioritize speed sign installation on Clairmont/Kinburn Street."

Motion carried.

A motion by Councillor Carver, seconded by Councillor Burdick, "THAT Council direct staff to develop a draft engagement plan in respect to Police Services to be presented to Council for review."

Motion defeated.

A motion by Deputy Mayor Kangata, seconded by Councillor Feeney, "THAT Council direct staff to convene a Special Council meeting in the new year to discuss the RCMP service that the Town contracts through the Province."

Motion carried.

9. New Business

9.1 Notice of Motion

Councillor Carver provided notice that at the next meeting of Council she will make or cause to be made a motion that the Town provide financial support for a recreational program provided by MODL Recreation at the Mahone Bay Legion.

10. Closed Session

A motion by Councillor Nowe at 9:09 pm seconded by Deputy Mayor Kangata, "THAT Council go into Closed Session to discuss the contract negotiations, as permitted by the MGA section 22(2)(e)."

Motion carried.

Council returned to Open Session at 10:42 pm.

Business Arising From Closed Session

A motion by Deputy Mayor Kangata, seconded by Councillor Nowe, "THAT Council approve the installation of up to six speed humps on Kinburn and Clairmont Streets."

Motion carried.

A motion by Wilson, seconded by Kangata, "THAT Council approve the change order from Roscoe Construction for the repaving of the old Fire Station parking lot."

Motion carried.

A motion by Councillor Wilson, seconded by Councillor Carver, "THAT the Town approve the expenditure for the line upgrade to/from the water treatment plant in the amount of \$375,690 out of the existing project budget for Main Street water line improvements."

Motion carried.

A motion by Councillor Nowe, seconded by Councillor Wilson, "THAT the Town approve the Mayor to sign a letter of guarantee for the purchase of solar panels."

Motion carried.

Council adjourned upon motion at 10:45 pm.

TOWN OF MAHONE BAY

TOWN OF MAHONE BAY

Mayor, David Devenne

Clerk, Maureen Hughes

From: <u>Anjel Van Damme</u>

To: Kelly Redden; Town of Mahone Bay Clerk
Cc: Anjel Van Damme; Vince Brandolini
Subject: 66 Clairmont Street Development
Date: Thursday, November 4, 2021 10:54:57 AM

CAUTION: This email originated from an external sender.

We live at 403-476 Main street in the Quinlan and are concerned about the proposed development for 66 Clairmont Street. We are supportive of additional housing in Mahone Bay but in our opinion the proposal is too large and too tall for the land it sits on There will be inadequate parking available for both the residents and visitors to the building. We suspect many cars will be parked on the street, compounding parking shortages that already exists in Mahone Bay. This will be heightened in the winter with snow removal – where will these cars go? We also believe that with the number of units proposed and the size of the building so close to the river, this will increase the risk of flooding which would impact many residents in the community. We believe this proposal should be rejected and a new more moderate one submitted.

Respectfully,

Anjel Van Damme and Vince Brandolini

November 3, 2021

To: the Mahone Bay Town Council

Re: 66 Clairmont Street

We own and live in a condominium unit in the Quinlan building at 476 Main Street in Mahone Bay. We have been examining the developer's proposal for a new apartment building at 66 Clairmont Street, directly across Ernst Creek from the Quinlan.

We are very concerned about the proposed building, not only for ourselves as Quinlan residents, but also about the effects of the structure on the neighbourhood in general. Our concerns align with many of the issues laid out by the Council at the Public Information Meeting of October 7, 2021. We have listed those issues below, together with our observations about them.

Adequacy of town services and financial impact

The proposed building could have well over 100 residents. Is the town's infrastructure for water, sewage, electricity, emergency services and garbage removal adequate for this, or will more capacity be needed? If the latter, will the developer pay for it?

Storm drainage and potential flooding issues

The ecosystem around Ernst Brook provides a vital drainage system for the buildings located close to it. Interfering with this system by adding massive amounts of fill to the 66 Clairmont site (presumably to accommodate the "underground" parking) may cause flooding both upstream and downstream of the site. In an era of increased flooding risk driven by climate change, this hazard needs careful study before the project is approved.

The developer has said that most of the water will simply percolate into the soil. This seems to avoid the issue, as the building itself will prevent water from doing this. Rainfall will have nowhere to go but the creek and the nearby properties. The developer's proposed remedy of a French drain around the building, plus a green roof, would help, but could easily be overwhelmed in severe storms.

Moreover, the rear wall of the proposed building will be a mere 28 feet from the creek bank. Will the developer have to remove mature trees and/or other significant vegetation from along the watercourse? Will there be filling and excavation that will damage or destroy the root systems that help absorb flood water and control erosion? Either action will increase flooding risk.

Finally, much of the sunlight that currently falls on the line of the creek will be blocked for much of the day. If this kills substantial amounts of creekbank vegetation, the ecosystem along the watercourse will be affected. Will this be assessed?

Site access and street network, emergency access, pedestrian safety, parking Clairmont Street is already a key route for pedestrian and vehicle traffic related to the baseball field, the playground, the pool, the trail system and the tennis courts. It is also the route for fire and other emergency vehicles. Traffic volume is already high on the street, especially during tourist season. The 50 or so vehicles added by the proposed building will make the situation even worse. The traffic hazards for pedestrians, especially children and seniors, will increase.

Noise, dust, nuisance, health hazards

The developer estimates two years to complete the building. For much of that time, residents of the adjacent properties will be assaulted by the din of heavy equipment and construction activities such as jackhammers. Such sustained noise pollution will interfere with nearby residents' enjoyment of their properties and has well-known health hazards.

In addition, the constant traffic of heavy construction vehicles will worsen the congestion on Claremont street and be dangerous for lighter vehicles, pedestrians and cyclists.

Height of structure

As mentioned earlier, the back wall of the 66 Clairmont building will be 28 feet from the streambed and will be five stories tall. The balconies on that side will look directly into the Quinlan units facing them, at close range. This will drastically affect the privacy of at least half of the residents of the Quinlan, will block sunlight for much of the day and will sharply reduce property values for units on that side of the Quinlan building. This in turn would pull down the value of units in the rest of the Quinlan.

Character and stability of surrounding neighbourhood

The proposed structure is far too large for the 66 Claremont lot, aesthetically and functionally. The building does not fit the look or feel of Mahone Bay, even if it is made permissible by a change in zoning regulations. Given the need for additional housing in the town, a more modest structure would make sense, but the current proposal does not.

Moreover, the developer's description of the building's units suggests that most of the renters would be couples, singles, retirees and seniors—the apartments do not seem to be family-oriented. But homes for young families are in desperately short supply here, and the proposed building will do little or nothing to improve that situation.

In closing, we request that the Planning Committee and the Council reject the proposal as it stands, and ask the developer to replace it with an acceptable one.

Regards,

476 Main St.

Unit 206

Mahone Bay

B0J 2E0

To: The Mayor and Mahone Bay Town Council

Re: 66 Clairmont Street

I own and live in a condominium unit in the Quinlan building at 476 Main Street in Mahone Bay. I have been examining the developer's proposal for a new apartment building at 66 Clairmont Street, directly across Ernst Creek from the Quinlan.

I am very concerned about the proposed building, not only for myself as Quinlan resident, but also about the effects of the structure on the neighbourhood in general. My concerns align with many of the issues laid out by the Council at the Public Information Meeting of October 7, 2021. I have listed those issues below, together with my observations about them.

Adequacy of town services and financial impact

The proposed building could have well over 100 residents. Is the town's infrastructure for water, sewage, electricity, emergency services and garbage removal adequate for this, or will more capacity be needed? If the latter, will the developer pay for it?

Storm drainage and potential flooding issues

The ecosystem around Ernst Brook provides a vital drainage system for the buildings located close to it. Interfering with this system by adding massive amounts of fill to the 66 Clairmont site (presumably to accommodate the "underground" parking) may cause flooding both upstream and downstream of the site. In an era of increased flooding risk driven by climate change, this hazard needs careful study before the project is approved.

The developer has said that most of the water will simply percolate into the soil. This seems to avoid the issue, as the building itself and driveway will prevent water from doing this. Rainfall will have nowhere to go but the creek and the nearby properties. The developer's proposed remedy of a French drain around the building, plus a green roof, would help, but could easily be overwhelmed in severe storms.

Moreover, the rear wall of the proposed building will be a mere 28 feet from the creek bank. Will the developer have to remove mature trees and/or other significant vegetation from along the watercourse? Will there be filling and excavation that will damage or destroy the root systems that help absorb flood water and control erosion? Either action will increase flooding risk.

Finally, much of the sunlight that currently falls on the line of the creek will be blocked for much of the day. If this kills substantial amounts of creekbank vegetation, the ecosystem along the watercourse will be affected. Will this be assessed?

Clairmont Street is already a key route for pedestrian and vehicle traffic related to the baseball field, the playground, the pool, the trail system and the tennis courts. It is also the route for fire and other emergency vehicles. Traffic volume is already high on the street, especially during tourist season. The 50 or so vehicles added by the proposed building will make the situation even worse. The traffic hazards for pedestrians, especially children and seniors, will increase.

Noise, dust, nuisance, health hazards

The developer estimates two years to complete the building. For much of that time, residents of the adjacent properties will be assaulted by the din of heavy equipment and construction activities such as jackhammers. Such sustained noise pollution will interfere with nearby residents' enjoyment of their properties and has well-known health hazards.

In addition, the constant traffic of heavy construction vehicles will worsen the congestion on Claremont Street and be dangerous for lighter vehicles, pedestrians and cyclists.

Height of structure

As mentioned earlier, the back wall of the 66 Clairmont building will be 28 feet from the streambed and will be five stories tall. The balconies on that side will look directly into the Quinlan units facing them, at close range. This will drastically affect the privacy of at least half of the residents of the Quinlan, will block sunlight for much of the day and will sharply reduce property values for units on that side of the Quinlan building. This in turn would reduce the value of units in the rest of the Quinlan.

Character and stability of surrounding neighbourhood

The proposed structure is far too large for the 66 Claremont lot, aesthetically and functionally. The building does not fit the look or feel of Mahone Bay, even if it is made permissible by a change in zoning regulations. Given the need for additional housing in the town, a more modest structure would make sense, but the current proposal does not.

Moreover, the developer's description of the building's units suggests that most of the renters would be couples, singles, retirees and seniors—the apartments do not seem to be family-oriented. But homes for young families are in desperately short supply here, and the proposed building will do little or nothing to improve that situation.

In closing, I request that the Planning Committee and the Council reject the proposal as it stands, and ask the developer to replace it with an acceptable one.

Regards,

Pamela Browne 476 Main St. Unit 402

Mahone Bay B0J 2E0

 From:
 Laurel Haslett

 To:
 Kelly Redden

 Subject:
 66 Clairmont St.

Date: Sunday, November 7, 2021 9:58:50 PM

CAUTION: This email originated from an external sender.

Date:

November 7, 2021

I own and live in a condominium unit in the Quinlan building, 476 Main St. in Mahone Bay.

I have several concerns re the proposed Clairmont St. Apartments. Most of my points have been covered by previous letters sent to the council so I will make my comments brief.

- 1. I am dismayed to see that a building this large is planned for this location. When I first heard that there would be rental housing with a portion of it affordable, I was pleased as it is badly needed in Mahone Bay. However, if up to 100 people reside in this building this could increase the population of Mahone Bay by 10% on this small plot of land.
- 2. Clairmont St. is home to many families with young children, a playground is nearby. I have heard some say that they don't want their children to play outside because of the increased traffic.
- 3. Possibility of flooding. Yes, this will probably happen and we will all suffer the consequences when it is too late to change anything. Climate change will likely bring more rain to our area.
- 4. Loss of sunlight. Most condo or apartment units have windows on one wall only. Mine certainly does, so I will have little natural light. Lighting from the many windows facing me means I will have to close my blinds most of the time. This is due to the height and size of the building and close proximity to my building.
- 5. No guest parking as far as I can see, so service vehicles and visitors will have to park on Claremont St.

I really hope that this development plan is revised as I believe that most in Mahone Bay already find the increased traffic very frustrating. Main St. is very busy with several tricky intersections and crosswalks. I realize that these are known and will be addressed when a viable traffic plan can be put in place.

I welcome the 100 or so potential residents to our lovely community, but hope they can find rental accommodation in smaller buildings. Is there not an apartment building planned behind the post office? What is the status of that project?

Regards, Laurel Haslett Unit 303, 476 Main ST. Mahone Bay, NS. From: Nona Alexander
To: Kelly Redden

Subject: Mayor and Council - 66 Clairmont Street Development

Date: Monday, November 8, 2021 11:09:41 AM

CAUTION: This email originated from an external sender.

Good Morning All:

I am the owner of Unit # 204, 476 Main Street in Mahone Bay.

I know that the town is in need of affordable housing for all - seniors, singles, families.

I have a few concerns with the potential proposal of the project slated for 66 Cllairmont Street.

- 1. Size of the building
- 2. Infrastructure facilities Storm drainage, flooding
- 3.Traffic
- 4. Density
- 5. Effects to the surrounding neighbourhood

I request that the Town (Mayor and Council) ask the developer to revisit the current proposal and resubmit a more suitable building which fits the neighbourhood.

Nona S. Alexander



449 Jubilee Road P.O. Box 409 Bridgewater, NS B4V 6W9 Bus: Fax: 902-543-4121 902-543-5596

October 29, 2021

Kelly Redden Deputy Clerk & Records Administrator

Kelly.Redden@townofmahonebay.ca

Dear Kelly Redden:

RE: Requesting that PW use sand, not salt, on the section of Hwy 3 within the Oakland Lake Watershed.

Thank you for your letter of October 4, 2021, to Minister Kim Masland, regarding the use of sand on the section of Highway 3, within the Oakland Lake Watershed. As Area Manager for Lunenburg/Queens, the Minister has requested that I reply on her behalf.

The recommendation put forth by the council has been noted and will be evaluated prior to the start of our Winter Operations season. I will also discuss the concern with the local operations supervisor.

If you have any questions or concerns, please contact me at <u>Logan.Webb@novascotia.ca</u> or 902-527-5398.

Sincerely,

Logan Webb, CET, P.Eng.

Area Manager, Lunenburg/Queens

LW:rj

c: Kim Masland, Minster

Gregory Newell, District Director Western

From: Judy Savin judysavin1@gmail.com Subject: Proposed Clairmont Street Apartments

Date: November 5, 2021 at 9:22 AM
To: clerk@townof mahonebay.ca



I would like to express my concerns regarding the proposed building.

Firstly the building seems much too large for the lot size.

Secondly the parking situation in Mahone Bay is already a problem, especially in the summer and holidays. This will add to the situation. It may be dangerous for children with a playground, baseball field and pool on the opposite side of the street. Lastly, there doesn't seem to be observed noise controls in town. I hope construction crews will be considerate of neighbours. We do need housing available in town, just not so much in one space. The roof garden is a commendable idea

Regards Judy Savin 476 Main Street, Mahone Bay Date 10/11/2021

To: the Mahone Bay Town Council

Re: 66 Clairmont Street

Not too long ago the developer was intent on building 2×4 plex housing units on the site in question. This would have meant 8 suites in total and that made sense!

We own and live in a condominium unit in the Quinlan building at 476 Main Street in Mahone Bay. We have been examining the developer's proposal for a new apartment building at 66 Clairmont Street, directly across Ernst Creek from the Quinlan.

We are very concerned about the proposed building, not only for ourselves as Quinlan residents, but also about the effects of the structure on the neighbourhood in general. Our concerns align with many of the issues laid out by the Council at the Public Information Meeting of October 7, 2021. We have listed those issues below, together with our observations about them.

Adequacy of town services and financial impact

The proposed building could have well over 100 residents. Is the town's infrastructure for water, sewage, electricity, emergency services and garbage removal adequate for this, or will more capacity be needed? If the latter, will the developer pay for it?

Storm drainage and potential flooding issues

The ecosystem around Ernst Brook provides a vital drainage system for the buildings located close to it. Interfering with this system by adding massive amounts of fill to the 66 Clairmont site (presumably to accommodate the "underground" parking) may cause flooding both upstream and downstream of the site. In an era of increased flooding risk driven by climate change, this hazard needs careful study before the project is approved.

The developer has said that most of the water will simply percolate into the soil. This seems to avoid the issue, as the building itself will prevent water from doing this. Rainfall will have nowhere to go but the creek and the nearby properties. The developer's proposed remedy of a French drain around the building, plus a green roof, would help, but could easily be overwhelmed in severe storms.

Moreover, the rear wall of the proposed building will be a mere 28 feet from the creek bank. Will the developer have to remove mature trees and/or other significant vegetation from along the watercourse? Will there be filling and excavation that will damage or destroy the root systems that help absorb flood water and control erosion? Either action will increase flooding risk.

Finally, much of the sunlight that currently falls on the line of the creek will be blocked for much of the day. If this kills substantial amounts of creekbank vegetation, the ecosystem along the watercourse will be affected. Will this be assessed?

Site access and street network, emergency access, pedestrian safety, parking Clairmont Street is already a key route for pedestrian and vehicle traffic related to the baseball field, the playground, the pool, the trail system and the tennis courts. It is also the route for fire and other emergency vehicles. Traffic volume is already high on the street, especially during tourist season. The 50 or so vehicles added by the proposed building will make the situation even worse. The traffic hazards for pedestrians, especially children and seniors, will increase.

Noise, dust, nuisance, health hazards

The developer estimates two years to complete the building. For much of that time, residents of the adjacent properties will be assaulted by the din of heavy equipment and construction activities such as jackhammers. Such sustained noise pollution will interfere with nearby residents' enjoyment of their properties and has well-known health hazards.

In addition, the constant traffic of heavy construction vehicles will worsen the congestion on Claremont street and be dangerous for lighter vehicles, pedestrians and cyclists.

Height of structure

As mentioned earlier, the back wall of the 66 Clairmont building will be 28 feet from the streambed and will be five stories tall. The balconies on that side will look directly into the Quinlan units facing them, at close range. This will drastically affect the privacy of at least half of the residents of the Quinlan, will block sunlight for much of the day and will sharply reduce property values for units on that side of the Quinlan building. This in turn would pull down the value of units in the rest of the Quinlan.

Character and stability of surrounding neighbourhood

The proposed structure is far too large for the 66 Claremont lot, aesthetically and functionally. The building does not fit the look or feel of Mahone Bay, even if it is made permissible by a change in zoning regulations. Given the need for additional housing in the town, a more modest structure would make sense, but the current proposal does not.

Moreover, the developer's description of the building's units suggests that most of the renters would be couples, singles, retirees and seniors—the apartments do not seem to be family-oriented. But homes for young families are in desperately short supply here, and the proposed building will do little or nothing to improve that situation.

In closing, we request that the Planning Committee and the Council reject the proposal as it stands, and ask the developer to replace it with an acceptable one.

Regards,

Darrell Dawson

476 Main St.

Unit *308*

MAHONE BAY

DOJ 2FO

Modone Bay B 052 E6

Mayor and Council members

Less than five years short of a century around us appreciation of the environment continues to grow. This is accompanied by increased concern for nature's healthy survival - along with concern for the preservation of ever town's

Levelopment proposal currently under consideration for the Clairmont site of suggest revisions are necessary in criter to saddress the expressed concerns of our citizens - my pellow residents.

Fran Rattray

From: Maureen Hughes
To: Kelly Redden

Subject: FW: NSFM"s Monday Memo: Nov 8, 2021

Date: Monday, November 22, 2021 11:11:18 AM

From: NSFM Communications < communications@nsfm.ca>

Sent: Monday, November 8, 2021 3:47 PM

To: Maureen Hughes < Maureen. Hughes @ Townof Mahone Bay.ca>

Subject: NSFM's Monday Memo: Nov 8, 2021

CAUTION: This email originated from an external sender.

View this email in your browser

NSFM Monday Memo



NSFM Names Three Members to Board of Directors

Last weeks' Fall Conference and AGM saw the naming of three new members to the NSFM Board of Directors:

Mayor Lennie White, *Town of Westville*, **Towns Caucus Chair**Councillor Paul Russell, *Halifax Regional Municipality*, **Regional Caucus Chair**Councillor Martha Armstrong, *County of Kings*, **Rural Caucus Representative**

Thank you to all those who put their name forward for consideration.

Congratulations to **Mayor Amanda McDougall** and **Mayor Brenda Chisholm-Beaton** on becoming the new NSFM President and Vice-President, respectively.

NSFM would like to thank departing board members **Mayor Pam Mood**, Town of Yarmouth, **Councillor Waye Mason**, Halifax Regional Municipality, **Councillor Patti Durkee**, Municipality of the District of Yarmouth, and **Alain Muise**, CAO, District of Argyle, for their outstanding work and dedication to Nova Scotian municipalities.

Congratulations to NSFM's 8th Annual Climate Change Leaders!

At the opening ceremony of the 2021 fall conference, NSFM presented its 8th Annual Climate Change Leaders Award to the following municipalities for their very ambitious projects that definitely raise the bar for climate initiatives in our province:

- The District of Argyle for its net zero administration building
- HRM for its climate action plan: HalifACT
- The County of Kings for its Green Municipal Campus

NSFM would like to congratulate Staff and Council from the District of Argyle, HRM and the County of Kings for their commitment to building climate resiliency and on being NSFM's 2021 Climate Change Leaders!

Congratulations to NSFM's 2021 Carbon Surcharge Fund Recipients

On November 3 at the opening ceremony of the fall conference, NSFM's President, Deputy Mayor Emily Lutz announced the 2021 Carbon Surcharge Fund recipients:

- The District of St. Mary's for its Bike-Friendly Business Program, which is part of its Active Sherbrooke Plan to encourage active modes of transportation in the municipality; and
- The Town of New Glasgow for its Electrical Vehicle Project to support the

installation of a public charging station in the downtown core and increase awareness of the benefits of electrical vehicles.

NSFM would like to congratulate Staff and Council from the District of St. Mary's and the Town of New Glasgow for their commitment to making our communities more sustainable and vibrant through these great initiatives!

Municipal Awareness Week Nov. 22-28!

Municipal Awareness Week is an opportunity to highlight the important work happening at the local government level and encourage citizens to participate in municipal government and elections.

Please reach out to NSFM if you have any activities you'd like to have featured!

NSFM Issue Letters of Support

DalTRAC's Project: Development of Community-level Travel Informatics for Tracking Progress in Transport Sustainability

DMAH project to protect infrastructure investments through improved data inputs for flood mapping

Smart Renewables and Electrification Pathways Program (SREPs), Capacity Building Stream for the Offshore Energy Research Association (OERA)

Take Action on RCMP Costs

Submitted From FCM

As municipalities look to pass their 2022 budgets the issue of municipal RCMP cost increases is top of mind for many of our members in areas that rely on RCMP contract policing.

As a reminder, FCM's board voted in September to call on the federal government to:

- absorb all retroactive costs associated with the implementation of the new RCMP labour relations regime; and
- commit to ensuring municipalities are properly consulted prior to implementation of measures that impact local fiscal sustainability and ability to maintain effective levels of police services in communities.

Following the discussion on this issue in September, FCM has been hard at work to communicate municipal concerns to the federal government and campaign for the support needed to ensure the financial sustainability of these services.

What you can do:

- Template Media Release
- Template resolution
- One-page backgrounder

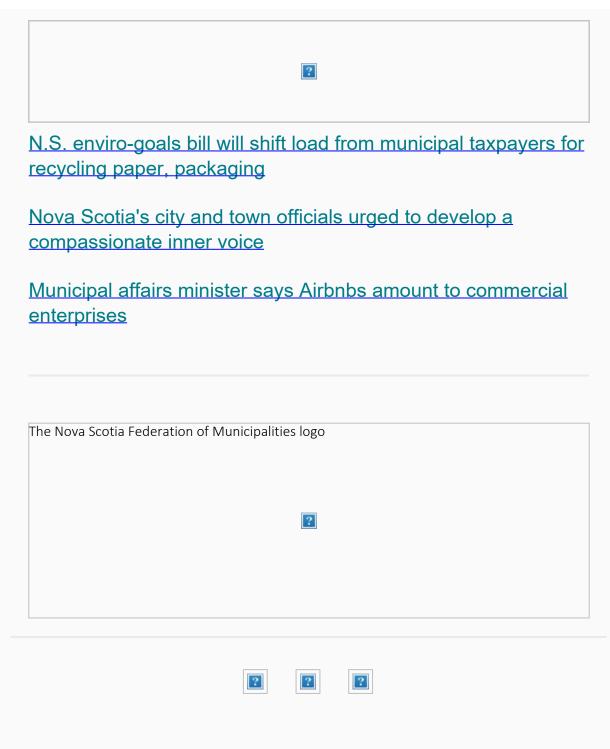


Supporting Marginalized Citizens' Wellbeing During a Pandemic: The Critical Role of Municipal Parks and Recreation Departments

Nov. 18, 10:00 -11:00 a.m., via ZOOM

This session will highlight the important role of the municipal recreation departments in navigating community crisis, discuss how and why recreation provisions were redesigned within the Town of Kentville during the pandemic, and the role and benefit of partnerships in delivering recreation provisions during a community crisis.

This webinar is part of the NSFM Webinar Series and is being offered free of charge to NSFM Members. <u>Please register here by Nov. 15.</u>



Nova Scotia Federation of Municipalities Suite 1304, 1809 Barrington Street Halifax, N.S. B3J 3K8 Phone: (902) 423-8331

info@nsfm.ca

Want to change how you receive these emails?

You can <u>update your preferences</u> or <u>unsubscribe from this list</u>.

This email was sent to Maureen.Hughes@TownofMahoneBay.ca
why.did.l.get.this?
unsubscribe from this list
update.subscription.preferences
Nova Scotia Federation of Municipalities
Suite 1304, 1809 Barrington Street
Halifax, NS, NS B3J 3K8
Canada



Kelly Redden

From: Maureen Hughes

Sent: Monday, November 22, 2021 11:11 AM

To: Kelly Redden

Subject: FW: NSFM's Monday Memo: Nov 15, 2021

From: NSFM Communications <communications@nsfm.ca>

Sent: Monday, November 15, 2021 4:03 PM

To: Maureen Hughes < Maureen. Hughes @ Townof Mahone Bay.ca>

Subject: NSFM's Monday Memo: Nov 15, 2021

CAUTION: This email originated from an external sender.

View this email in your browser



Minister Lohr and Minister Halman to Join Mayors/Wardens Call Wednesday

NSFM will host Minister Lohr and Minister Halman for a session with Nova Scotian Mayors and Wardens starting at 6 p.m. this coming Wednesday. Mayors and Wardens, or a deputy acting in their stead, have been forwarded an invite to the meeting.

Announcement from Public Safety and Security Division, NS Department of Justice regarding new Collective Agreement for RCMP

To: Nova Scotia Chief Administrative Officers, Department of Municipal Affairs and Housing, Local Contract Management Committee, and Nova Scotia Federation of Municipalities

In 2015, the Supreme Court of Canada ruled that RCMP had the right to collective bargaining, similar to other members of the public service. The National Police Federation became the bargaining agent for RCMP Regular Members.

The first Collective Agreement was negotiated between the federal government and the National Police Federation, for RCMP Regular Members (below the rank of Inspector) and Reservists. The Collective Agreement was signed on August 6, 2021, with an expiry date of March 31, 2023, as posted on the federal government website: RCMP Regular Members (below the rank of inspector) and Reservists (RM)- Canada.ca (tbs-sct.gc.ca)

With this agreement, RCMP total compensation, including pensions and benefits, is competitive with other police services, and considered to be fair and reasonable for Canadian taxpayers.

We are mindful that policing represents a significant cost for municipalities, and we understand your concerns. The province is working closely with the National Contract Management Committee to address the impacts to municipalities in Nova Scotia that contract RCMP as their policing service provider. There has also been a delay due to the federal election and the newly formed cabinet.

Please note that the provisions in the Nova Scotia Police Service Agreements, including those related to method of payment and financial planning and reporting, are unchanged and remain in effect.

We appreciate your need for further details while we are waiting for answers to calculate the

financial impact to municipal budgets. We will share this information with you as soon as it's available.

Thank you for your patience.

Hayley Crichton, A/Executive Director
Public Safety and Security Division
Nova Scotia Department of Justice
1801 Hollis Street, Halifax, NS

Stephen Ong, Director of Contracts
Nova Scotia Department of Justice

Municipal Awareness Week Nov. 22-28!

Municipal Awareness Week is an opportunity to highlight the important work happening at the local government level and encourage citizens to participate in municipal government and elections.

Please reach out to NSFM if you have any activities you'd like to have featured!









D

Feel confident with preferred rates from TD Insurance.

Employees could save on car, home, condo and tenant's

Get a quote and see how much you could save! Go to tdinsurance.com/NSFM

The TD Insurance Meloche Monnex home and auto insurance program is underwritten by Primmum Insurance Company and distributed in Quebec by Meloche Monnex Insurance and Financial Services Inc., Damage Insurance Agency, and in the rest of Canada by TD Insurance Direct Agency Inc. Our address: 50 Place Crémazie, 12th Floor, Montréal,

Due to provincial legislation, this car and recreational insurance program is not offered in British Columbia, Manitoba or Saskatchewan,

[®] The TD logo and other trademarks are the property of The Toronto-Dominion Bank or its subsidiaries.

8249-0320

Upcoming Events

WEBINAR: Bringing your community climate action plan to life

Is your community looking for advice on how to fund and implement its climate action plan? A well-developed climate strategy can help your municipality reduce GHG emissions, save money, improve air quality and improve health of residents, but it can also leave you wondering how to get started.

Join FCM at 1:00 p.m. ET on November 17, 2021, for a free webinar: Bringing your community climate action plan to life.

Supporting Marginalized Citizens' Wellbeing During a Pandemic: The Critical Role of Municipal Parks and Recreation Departments

Nov. 18, 10:00 -11:00 a.m., via ZOOM

This session will highlight the important role of the municipal recreation departments in navigating community crisis, discuss how and why recreation provisions were redesigned within the Town of Kentville during the pandemic, and the role and benefit of partnerships in delivering recreation provisions during a community crisis.

This webinar is part of the NSFM Webinar Series and is being offered free of charge to NSFM Members. Please register here by Nov. 15.

In The News

Cape Breton mayors take over top posts with Nova Scotia
Federation of Municipalities board of directors









Nova Scotia Federation of Municipalities Suite 1304, 1809 Barrington Street Halifax, N.S. B3J 3K8 Phone: (902) 423-8331

info@nsfm.ca

Want to change how you receive these emails?

You can <u>update your preferences</u> or <u>unsubscribe from this list</u>.

This email was sent to Maureen.Hughes@TownofMahoneBay.ca
why did I get this?
unsubscribe from this list update subscription preferences
Nova Scotia Federation of Municipalities · Suite 1304, 1809 Barrington Street · Halifax, NS, NS B3J 3K8 · Canada

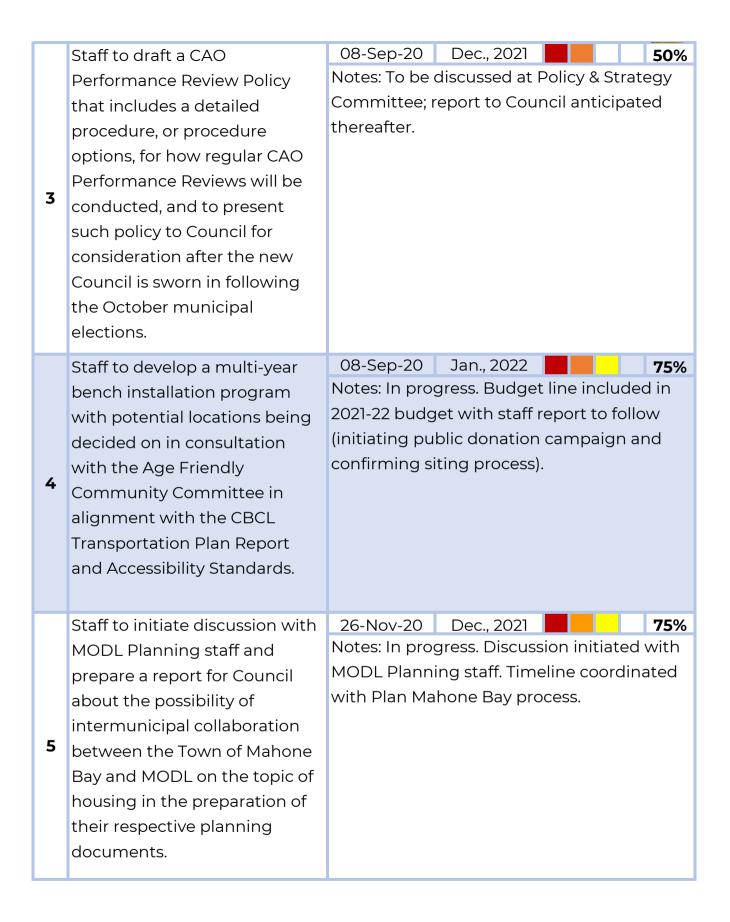




Report to Council

This Report to Council is intended to provide the Mahone Bay Town Council with a high-level summary of staff progress towards Council's direction to staff. As per the Town Council Policy, the report will be provided at each regular meeting of Council. The Report to Council is a living document and will improve and expand to incorporate new source documents as approved, and to respond to feedback received from Council.

Goa	Objective	Assigned	Target	% Completion
Cou	ıncil Assignments to Staff			
1	Staff to contact the NS Department of TIR regarding the Town's proposed 2020/21 Transportation Project as well as to discuss proposed changes on highway approaches to Mahone Bay as outlined in the CBCL report.	this regard. L	Jpdate includ	ation with TIR in led in staff report neeting agenda.
2	Staff amend the Respectful Workplace Policy and/or Employee Conduct Policy to reflect points raised in review of the draft Violence in the Workplace Policy specific to Town employees and recommend to Council.	Notes: To be discussed at Policy & Strategy Committee in 2021-22; report to Council anticipated thereafter.		



6	Staff to contact MODL as a follow-up to the letter to their Council requesting a partnership with MODL which would enable Mahone Bay residents to be eligible for the ProKIDS program.	Notes: Staff have met with MODL to explore the opportunity to partner and are awaiting consideration of proposal by MODL, which will be reported to Council. Estimate included in 2021-22 budget.			
7	Direct staff to include accessible hearing solutions in the Accessibility Operational Plan, anticipated in 2021-22	25-Mar-21 Dec., 2021 25% Notes: Will be incorporated into Accessibility Operation Plan. Lunenburg County Accessibility Coordinator has started work and is working to coordinate the development of Accessibility Operational Plans for Lunenburg County municipalities.			
8	Staff to invite the MBTCC to meet with Council to discuss the basis for a potential revewed agreement in respect to operation of the VIC.	Notes: MBTCC have been advised of the direction of Council. Members not available to attend in June/July due to resumption of business activities following lockdown. MBTCC proposing this meeting take place in February/March 2022, with newly elected MBTCC executive.			
9	Staff to apply to the Canada Healthy Communities initiative and the Canada Cultural Spaces Fund to sponsor Phase 3 improvements to the Michael O'Connor Memorial Bandstand.	Initiative application did not receive approval. Canada Cultural Spaces Program			

10	Staff to present an amended draft Asset Management Policy, to include climate mitigation considerations.	meeting of C coordinated Policy Review		ember,	ort 2.0
11	Refer the request from MADE for Mahone Bay to the planners for their report to the Planning Advisory Committee, and to the Committee for their recommendation to Council.	Notes: Planners have received the request and are in communication with the applicants in the preparation of their report. A PIM was held on October 7th. Planning staff are collecting further information and will present a report to the Planning Advisory Committee.			
12	Staff to reach out to the Independent Store and BMO to discuss a license agreement for an EV Charger on their property.	support, awaiting response from property			
13	Staff to initiate a Home 29-Jul-21 Jan., 2022 2 9-Jul-21 Notes: In Progress.				25%
14	The property at 342 Main Street be registered as a Municipal Heritage Property in the Town of Mahone Bay.	Notes: Homeowner notified, documents prepared and forwarded to Town solicitor, currently awaiting notification from the Province that the designation has been registered.			

15	Should the Town proceed with the replacement of fencing on Clearland Road and Edgewater Street boundaries of Bayview Cemetery, replacement fencing will be painted wood,	Municipal Af fencing) clos Developmen	fairs, tender (f ed Nov 17, awa	d from Dept. of for wooden arded to Cityzen s of the tender
	consistent with the standards and guidelines of sustainable historical resources.		'	
16	Staff to produce a report on the Town's Procurement Policy.		Jan., 2022	Not yet begun
16	Town's Procurement Policy.	Notes:		
17	Staff to provide a report on the Townsuite programs which may be relevant to the Town's operations.	29-Jul-21 Notes: In pro	Dec., 2021 gress.	75%
18	Staff to apply for Connect2 provincial funding and to also apply to the Federal Active Transportation Fund to improve active transportation infrastructure, and active transportation safety within the Town of Mahone Bay.	Connect2 fur	nding anticipa deral Active T	n submitted; ated. Staff Transportation
19	That minimum standards for housing be reflected in any housing strategy that the Town may develop.	14-Sep-21 Notes:	Dec., 2021	Not yet begun

	Council consider reviewing the	14-Sep-21	Jan., 2022	Not yet beg	jun
	Town logo and request that	Notes:			
20	staff prepare a report on an				
	RFP process to develop a new				
	logo for the Town of Mahone				
	Rav				
	Staff to report back to Council	27-Sep-21	Dec., 2021		50%
	on the cost and anticipated	Notes: In Pro	gress.		
21	revenue of a water connection				
	to the Cleveland property.				
	Staff to provide a report on the	27-Sep-21	Feb., 2022	Not yet be	gun
	costs and anticipated revenue	Notes:			
22	of extending water and sewer				
	services to the end of Fairmont				
	Street.				
	Letter be sent from the Mayor	28-Oct-21	Nov., 2021		75 %
	to our MLA, Hon. Susan	Notes: In Pro	gress.		
	Corkum-Greek, to advise that				
	the Town is submitting a				
	request to the Department of				
	Transportation and				
23	Infrastructure Renewal for a				
23	speed reduction to lower than				
	50km/h and that we are aware				
	that a private member's bill has				
	been proposed that would				
	allow municipalities to make				
	· ·				
	this change themselves.				

	Defer discussion concerning	28-Oct-21	Jan., 2021	Not yet begun
24	the issuance of an RFP for the engagement of engineering services and direction to staff regarding the development of an engagment plan for transportation and infrastructure improvements south of Clairmont Street to a later meeting of Council.	Notes:		
25	Refer Transportation Planning 2022 and Onward to a future meeting of the Policy and Strategy Committee.	28-Oct-21 Notes: Referr TBD.	Dec., 2021 red to Commit	ttee; meeting date
	Direct staff to prepare a report	28-Oct-21	Feb., 2021	Not yet begun
26	for Council on future capital investment in the Town Hall ahead of the 2022-23 budget process.	Notes:	Peb., 2021	Not yet begun
	Direct staff to prepare a draft	28-Oct-21	Nov., 2021	*
27	COVID-19 Vaccination Policy, requiring full immunization of all Town employees, including Councillors, to be presented to Council no later than the November 25, 2021 Council meeting and implemented no later than January 31, 2022.	Notes: Repor	•	olicy on Council's

	Approve the reimbursement to	28-Oct-21	Nov., 2021	75%
28	Mr. Todd Nickerson in the amount of \$51,282.19 and direct staff to undertake the necessary steps to conduct a joint tax sale with the Municipality of the District of Lunenburg.	Notes: In pro	gress.	
29	Direct staff to issue an RFP for legal services.	28-Oct-21 Notes:	Jan., 2021	Not yet begun
30	Council provide the \$900 budgeted amount for Father Christmas activities, plus the addition of \$1200 to purchase banners as requested in the letter from Ms. Pinsent, as well as the in-kind time from Town staff.		Nov. 2021 ng provided, a kind support.	arrangements
31	Refer Christmas decorations to the 2022/23 budget process.			anager of Finance budget process.
32	That the letter from Sue Brumwell be forwarded to the Planners and that she be advised that this has	09-Nov-21 Notes: Comp	Nov. 2021 lleted.	

	Defer consideration of the	09-Nov-21	Dec. 2021	50%
33	Signage Policy until the December 14, 2021 meeting of Council at which time staff will provide a revised draft to include acceptable locations on public property for municipal election signage.	Notes: In pro	gress	
	Appoint Annette St. Onge to	09-Nov-21		— — ★
34	the Asset Management Committee.	Notes: Comp	oleted.	
35	Adopt the Occupational Health		Nov. 2021	*
	and Safety policy.	Notes: Comp		
	Eliminate the Age Friendly	09-Nov-21	Nov. 2021	***
36	Community Committee and	·	oleted and not	ification posted
	the Economic Development Committee	on website.		
	Staff to develop a revised terms	09-Nov-21	Dec. 2021	50%
37	of reference for a Climate	Notes: In Pro	gress.	
	Action Committee to be			
	presented to Council.			
	The next agenda of the Policy	09-Nov-21 Notes: Comp	Nov. 2021	
38	and Strategy Committee to include the committee policy	140tes. Comp	neced.	
	and the CAO/Council			
	relationship policy.			
	Staff to prioritize speed sign	09-Nov-21	Nov. 2021	Not yet begun
39		Notes: Await	ing delivery of	f speed signs.
	Clairmont/Kinburn Street.			
	Staff to convene a Special	09-Nov-21	Nov. 2021	Not yet begun
	Council meeting in the new	Notes: Date	IBD.	
40	year to discuss the RCMP			
70				
70	service that the Town contracts through the Province.			

	Approve the installation of up	09-Nov-21	Nov. 2021		50%
/1	to six speed humps on Kinburn	Notes: Incorp	Notes: Incorporated into annual paving		
41	and Clairmont Streets.	contract (Tov	vn & Country)	; installa	ation
		anticipated l	ate Novembe	r.	
	Approve the change order	09-Nov-21	Nov. 2021		50%
42	from Roscoe Construction for	Notes: Incorp	oorated into F	ire Stati	on project
72	the repaving of the old Fire	contract (Ros	scoe Const.); a	nticipat	ted in late
	Station parking lot.	November.			
	Approve the Mayor to sign a	09-Nov-21	Nov. 2021		*
43	letter of guarantee for the	Notes: Letter signed.			
	purchase of solar panels.				
	Approve the expenditure for	09-Nov-21	Dec. 2021		75 %
	the line upgrade to/from the	Notes: Awaiting confirmation of designs /			
44	water treatment plant in the	project schedule with MacLeod Group.			roup.
	amount of \$375,690 out of the				
	existing project budget for				
	Main Street water line				

Chi	ef Administratve Officer's Repo	rt - Nov. 25, 2021				
		CAO monitoring NS EMO updates. Town				
		Office now open to the public. COVID-19				
1	COVID-19	vaccination policy included on Council's				
		November 25 meeting agenda.				
		AIM Cohort 2.0 begun November 10th, to run				
	Atlantic Infrastructure	November 2021 through February 2022 with				
2	Management (AIM) Network	AM Committee participation. AIM Network				
	Asset Management Cohort	annual conference rescheduled to Nov 29-				
	Program	Dec 1, 2021 in Dartmouth, NS.				

3	Municipal Joint Services Board (MJSB) Riverport Electric Shared Service Committee	MJSB meetings continue on bi-monthly basis for the time being. New MJSB Comptroller in place, hiring process continues for new COO. Strategic planning postponed to 2022. Coordinating with Riverport re staffing, imports, equipment inventory, safety program, policy development, stand-by coverage, net metering program, etc Currently drafting agreements for consideration of Council / Commission.
	Service Committee	Coordinating on utility asset management and planned rate study. Shared Service Committee meetings expected to resume in 2022.
5	Regional Emergency Measures Organization (REMO)	Dorian claim signed off with the Province. Regular bi-weekly meetings and bi-monhtly table exercises between REMO Coordinator and CAOs continue (along with regular planning meetings). Coordinator continues to review and improve REMO procedures in consultation with CAOs. Training opportunities for staff /Council (ICS 100-200) identified in coming months (delayed by COVID-19 restrictions). Standardized procedures for comfort stations and emergency shelters - which can be utilized for fire station - now being implemented. New REMO website launched (linked from Town website).

6	Alternative Energy Resource Authority (AREA)	Weekly AREA staff meetings continue by phone. Power imports continue under annual agreement for 2021. BUTU applications for 2022 submitted. HOME (Heatpump Options Made Easy) program launched Oct 1, 2020; year-one evaluation underway now. EV charger installations anticipated to take place in Fall of 2021. Federal/Provincial solar gardens funding for Mahone Bay, Berwick and Antigonish was announced publicly on July 8th. Staff anticipating formalization of funding arrangments and finalization of plans for the community solar garden project ASAP. Public open house conducted November 4; engagement summary report anticipated.
7	FCM / Clean Foundation Transition 2050 (Partners for Climate Protection) Initiative	Community GHG Reduction Action Plan adopted by Council Mar 25 and incorporated into 2021-22 budgets approved May 27. Staff continue to participate in T2050/PCP Initiative. Staff report re GHG Reduction Plan Implementation on Council's June 24 meeting agenda, recommendations adopted by Council and underway. New Climate & Energy Program Manager Martha Horsman started in September, 2021.

		CAO conving as staff policy resource to
8	Lunenburg County Accessibility Advisory Committee	CAO serving as staff policy resource to Lunenburg County Accessibility Advisory Committee. With Council approval of draft Lunenburg County Accessibility Plan - and approval of other participating councils - Operational Plan development can proceed in 2021-22; staff currently discussing options to cooperate with neighboring units. Province has extended legislative deadlines for the development and implementation of Accessibility Plans and associated Operational Plans to April 1, 2022. Included in 2021-22 operating budget. New Lunenburg County Accessibility Coordinator Ellen Johnson started with MoC in Septmber.
9	Nova Scotia Federation of Municipalities (NSFM)	CAO continuing to serve on Nova Scotia Infrastructure Asset Management Working Group as AMA/NSFM representative, as well as participating as a mentor in Working Group's new AM mentoring program for municipal staff. Participated in NSFM Virtual Spring Conference May 6-7, 2021 and AMANS Virtual Spring Conference June 9-11, 2021.
10	New Long Term Care Facility	Work remains ongoing with the Town's consultant and the Developer of the new LTCF to be built near 164 Main St

Manager of Public Works & Transportation's Report - Nov. 25, 2021

Winter works vehicles are still undergoing maintenance activities. All driveway culverts on Long Hill road have been installed. Cherry Lane has officially become a one way street. Pet waste stations are being installed in 9 locations. Speed radar signs had arrived but were sent back since as the wrong ones were shipped. Clean up of Public Works garage to help store some of the winter Streets & Sidewalks maintenece equipment. Purchase of one used salt spreader to create redundency for the back of Dodge 1 ton. Received almost all quotes for both Old and New Water Treatment plant building upgrades. Landscapping has slowed and equipment is slowly being taken offline for the season. Staff have completed the installation of new wayfinding signage at various locations throughout the community. Removal of

2 Cemeteries & Open Space

wayfinding signage at various locations throughout the community. Removal of dead trees in Bayview Cemetery with Town's tree contractor has been completed. Dead tree at MB/Oakland town limits has been removed. Dead tree limbs have been removed from 590 Main St property. Trunk will be removed later this fall. Quotes for new fencing at Bayview cemetery are still being gathered.

Electric Utility Manager's Report - Nov. 25, 2021

1 Electric Utility

The Main Street line upgrade was completed including one of the engineer's recommendations to help supply power to the new nursing home without future issues. The new fire hall is close to completion and should be getting the transformer installed next week. We have finished our meter changes for the year.

Water/Wastewater System Manager's Report - Oct. 28, 2021 (position currently vacant)

Water Supply, Treatment & Distribution

Regular monitoring and maintenance activities continued. Routine flushing of water mains was conducted in various locations throughout the water distribution system. Dead end flush unit install Edgewater Street scheduled; delivery pending for second unit. NRW project step testing scheduled for October 25,26,27, 2021. Service leak repair completed. Water connection installation underway for new Fire Hall; pressure testing and disinfection planned. Seasonal watemain flushing scheduled for october 20 & 21, 2021.

2 Sewage Collection & Treatment

Regular monitoring and maintenance activities continued. Permantent installation of PAA dosing line completed. Annual Xylem inspection of lift station pumps completed. Removal of discontiunued chlorine equipment from WWTP control building 75% complete. Door modifications of chemical room WWTP for PAA tote delivery pending.

Climate & Energy Program Manager's Report - Nov. 25, 2021

1 GHG Reduction

Community GHG Reduction Action Plan adopted by Council Mar 25 and incorporated into approved 2021-22 budgets. Staff continue to participate in T2050/PCP Initiative.

Staff have been working to install 8 electric vehicle chargers throughout the Town. The install will begin shortly and will be completed before December 31, 2021.

		Staff have connected with members of CanmetENERGY-Ottawa, Natural Resources Canada who expressed an interest in performing research related to GHG
2		reduction, using Mahone Bay as a case study.
		Staff have been working with Coastal Action to begin the Living Shoreline Enhancement Pilot Program. Geotechnical work completed this fall was successful, and further construction is expected to begin this spring.
3	Engagement & Stewardship	The Town's Connect2 grant application for the All-ages Cycling Route Infrastructure Improvement Project was approved. A stewardship initiative and engagement strategy was created by our summer student, Sarah Parolin. As part of the community engagement strategy, messaging regarding the environmental benefits of shopping local this holiday season will be in the December Mayor's Newsletter. This will also be shared on the Town's social media in early December. An open house for the Solar Garden initiative was held on November 4th. More than 90 community members attended, and comments and feedback to staff were positive.

Finance	Manager's R	eport - Nov	, 25th, 2021
I IIIuIICC	Mariager 5 K	spoit itot	· Loui, Loui

1	COVID-19	Staff continue working in the office 5 days a week with increased COVID-19 safety measures in place including plexiglass barriers, an exit door, and door buzzer to control the number of customers in at one time.
2	Provincial Reporting	The SOE-A, SOE-B, CIP, and FIR have all been released by the Province. Finance Staff are currently working to have all reports completed by required deadlines.
3	Tax Bills/Tax Sale	Both Interim and Final tax bills have been issued for Fiscal 2021/22. There are a few accounts which fall within the criteria for Tax Sale, but contact have been made with impacted parties, and staff are in the process of developing payment plans for these
4	Audit	The 2020-21 Financial Audit is coming to a close. There have been a number of dealys this year due to various circumstances which is why the Audit is not yet at a close. Staff are expecting to soon be receiving DRAFT Financial Statements, and will soon be rescheduling the meeting date for the Audit Committee to review the DRAFT Financial
5	2022-23 Budget	In the coming months, staff will be working on a Year End Financial Projection and Capital Project Update Report. These reports will start the discussion for the Fiscal

Cle	rk & Deputy CAO's Report - Nov	v. 25, 2021
1	Plan Review	Steering Team meeting held on November 2nd and final comments forwarded to contractor. Awaiting edited drafts for review of Steering Team before being forwarded to Council for approval and release to public for next round of public engagement.
2	By-laws and Policies	Dangerous/Unsightly Buildings By-law was repealed and a the Safety Policy was passed on November 9, 2021. Fire Services By-law is still underway as staff coordinate with the Office of the Fire Marshall. Staff are still waiting for Ministerial approval on the REMO by-law passed on July 29, 2021.
3	Communications and Public Engagement	Continued weekly communication about Asset Management in the Town and where to get information about the Town. Specific communications to push out into the public have included leak detection, the Solar Garden Open House, planned Electric outages for line upgrades for the Nursing Home, Leaf and Yard Waste Clean up, and closures at the Comfort Stations as part of the winterization project.
4	Council Support	Ongoing support of Council and committee meetings.

5	Records Management System	With the move back into Town Hall conversion of paper records into digital records has recommenced. Staff working on the development of a One-Drive based shared server for Town records.
6	Town Hall Reno	Council desks is now complete with the delivery of the final, corner, pieces of the board table set up. Staff are currently researching the installation of a second monitor in Chambers. The Centennial Mayor's Gallery has now been hung up in the second-floor hallway at Town Hall. Discussions underway for establishing a "Mayor's Office" in the former CAO's office on the first floor of Town Hall.

	By-law and Policy Peview - November 25, 2021											
Ву-	By-law and Policy Review - November 25, 2021											
г		Target	Staff to research tree policy/by-									
1	Trees	21-Jan-21	laws and recommendations received regarding Mahone Bay specifically. In context of Plan Review.									
2	Park By-law	Target 01-Feb-21	Staff to review Park By-law in context of Plan Review.									

		Target	Council received a draft
		12-Dec-21	signage policy at the October
			28, 2021 and November 9, 2021
3	Off Premises Signage Policy		meetings of Council; the item
	On Fremises Signage Folicy		was returned to staff for
			amendment. To be added to
			the December 12, 2021 Council
			agenda.
		Target	Staff to prepare a report on
	CAO Performance Review Policy	TBD	drafting a CAO Performance
4			Review Policy. Pending
			discussion at Strategy & Policy
		Tarast	Committee.
		Target	Staff to review Employee
l _		TBD	Conduct Policy in relation to
5	Employee Conduct Policy		violence in the workplace.
			Pending discussion at
			Stratedy X. Dolley (ammittee
			Strategy & Policy Committee.
		Target	Pending discussion at
6	Council/CAO Relations Policy	Target TBD	
6	Council/CAO Relations Policy	TBD	Pending discussion at
6	Council/CAO Relations Policy	TBD Target	Pending discussion at Strategy & Policy Committee. Council received a draft
6	Council/CAO Relations Policy	TBD	Pending discussion at Strategy & Policy Committee.
		TBD Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October
6	Council/CAO Relations Policy Plastic Signage Policy	TBD Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021
		TBD Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item
		TBD Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item was returned to staff for
		TBD Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item was returned to staff for amendment. To be added to
		TBD Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item was returned to staff for amendment. To be added to the December 12, 2021 Council
		TBD Target 14-Dec-21	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item was returned to staff for amendment. To be added to the December 12, 2021 Council agenda.
	Plastic Signage Policy	TBD Target 14-Dec-21 Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item was returned to staff for amendment. To be added to the December 12, 2021 Council agenda. A By-law to Repeal the Town of
7		TBD Target 14-Dec-21 Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item was returned to staff for amendment. To be added to the December 12, 2021 Council agenda. A By-law to Repeal the Town of Mahone Bay
7	Plastic Signage Policy	TBD Target 14-Dec-21 Target	Pending discussion at Strategy & Policy Committee. Council received a draft signage policy at the October 28, 2021 and November 9, 2021 meetings of Council; the item was returned to staff for amendment. To be added to the December 12, 2021 Council agenda. A By-law to Repeal the Town of Mahone Bay Dangerous/Unsightly Buildings

		Target	A Stakeholder PIM was held
9	Fire Services	14-Dec-21	with the Fire Department on
			September 13, 2021.
		Target	Pending discussion at
10	Council Policy	TBD	Strategy & Policy Committee.
		Target	Pending discussion at
11	Respectful Workplace Policy	TBD	Strategy & Policy Committee.
12	Fees Policy	Target	Not yet begun
12	rees Policy	TBD	
13	Danaltias Dr. Jan.	Target	Not yet begun
13	Penalties By-law	TBD	
		Target	Pending discussion at
14	Committee Policy	Target TBD	Pending discussion at Strategy & Policy Committee.
14	Committee Policy		
14	Committee Policy REMO By-law	TBD	Strategy & Policy Committee.
		TBD Target	Strategy & Policy Committee. Final reading passed on July
15	REMO By-law	TBD Target	Strategy & Policy Committee. Final reading passed on July 29, 2021. Currently awaiting
		TBD Target 29-Jul-21	Strategy & Policy Committee. Final reading passed on July 29, 2021. Currently awaiting Ministerial Approval.
15	REMO By-law	TBD Target 29-Jul-21 Target 09-Nov-21	Strategy & Policy Committee. Final reading passed on July 29, 2021. Currently awaiting Ministerial Approval. Approved at the November 9,
15	REMO By-law Safety Policy	TBD Target 29-Jul-21 Target 09-Nov-21 Plan Review	Strategy & Policy Committee. Final reading passed on July 29, 2021. Currently awaiting Ministerial Approval. Approved at the November 9, 2021 meeting of Council.
15	REMO By-law Safety Policy Land-Use By-law and	TBD Target 29-Jul-21 Target 09-Nov-21 Plan Review reviewing dr	Strategy & Policy Committee. Final reading passed on July 29, 2021. Currently awaiting Ministerial Approval. Approved at the November 9, 2021 meeting of Council. Underway. Steering Team
15	REMO By-law Safety Policy	TBD Target 29-Jul-21 Target 09-Nov-21 Plan Review reviewing dr before the de	Final reading passed on July 29, 2021. Currently awaiting Ministerial Approval. Approved at the November 9, 2021 meeting of Council. Underway. Steering Team aft LUB and MPS for any edits

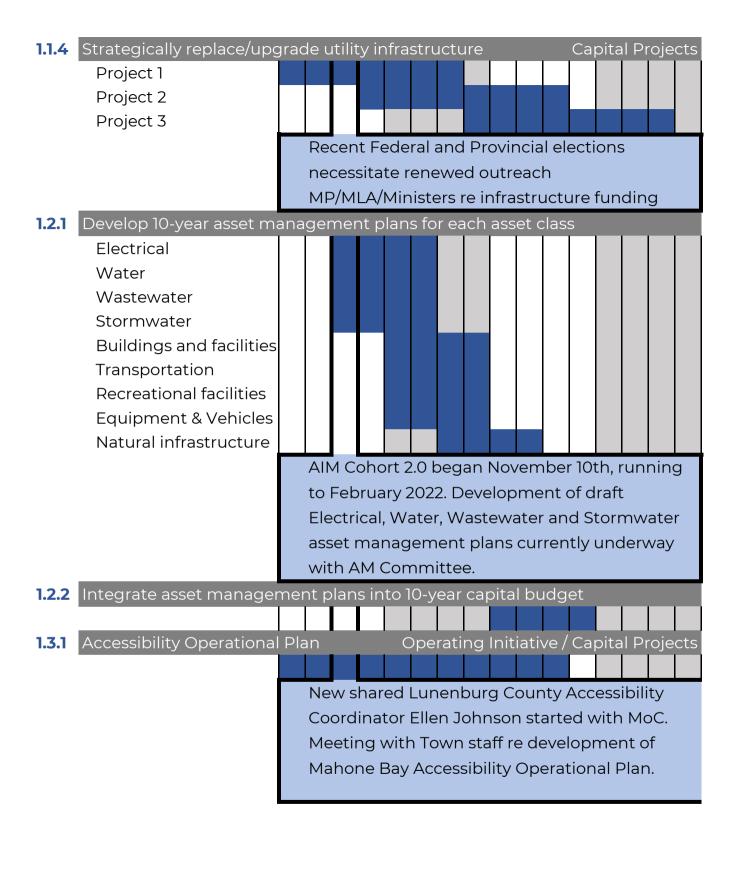
Serv	vice Statistics - November 25, 2	021											
		Oct-21 Parking Tickets: 3											
		Notes: Parking enforcement resulted in 3											
		tickets and several warnings. Other matters											
		for the mont	h of October inc	cluded ongoing									
1	By-law Enforcement	complaints about delivery trucks on Long											
		Hill Road, far	m animals, follo	w up on a									
				tion, and reports									
		of farm anim	als on Main Stre	eet.									
	Police Services (founded &	Q3 2021	149 C	alendarYTD: 391									
2	SUI occurrences)	Notes:											
		Apr-Jun	11	-									
3	Mahone Bay & District Fire	Notes: MVCs: 1; Fire Alarms: 2; Mutual Aid:											
	Department	4; Medical C	alls: 1; Other: 2										
			38 Clearway	9 Pond									
		Sept., 2021	ADT (Mon-Fri):	ADT (Mon-Fri):									
			1,289	414									
4	Traffic (Speed Signage)		38 Clearway										
		Oct., 2021	ADT (Mon-Fri)	, , ,									
			1,413	534									
			from tube coun										
_		Dec. 2020		TD: 774.44									
5	Solid Waste (Tonnage)		clables = 14.37;										
		Leads: 50	ner = 38.18; Cardl Installati										
			assador engage										
6	HOME Program		stallations to res	,									
		ŕ	-19 guidelines p										
		Pumped	Q4 (monthly a	verage):									
			17,176,667 Litres	5									
		Treated	Q4 (monthly a	verage):									
7	Water Utility		15,165,667 Litres	5									

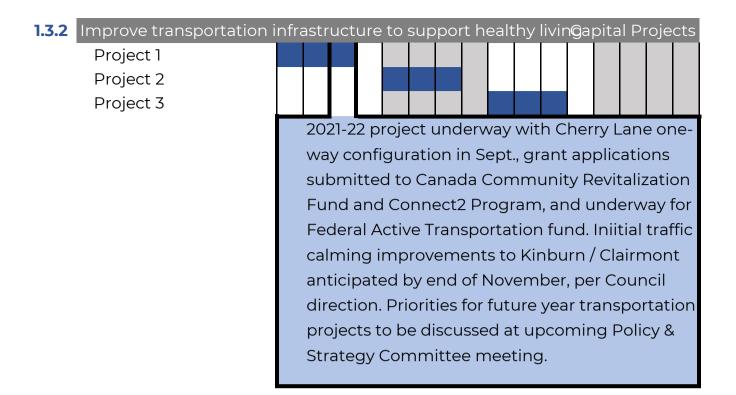
		Sold	Q4 (monthly average): 5,549,300 Litres
		Notes: Wate	r audit report on Nov 25 agenda.
	Electrical Utility	Domestic	Q4: 2,638,308 kWh; YTD: 6,727,676 kWh
8		Commercia I	Q4: 263,053 kWh; YTD: 596,194 kWh
		Industrial	Q4: 1,508,000 kWh; YTD: 4,727,392 kWh
		31/10/2021	Residential: 310; Business: 10; Email: 158; Text: 213
		30/9/2021	Residential: 308; Business: 10; Email: 156; Text: 208
		31/08/2021	Residential: 297; Business: 10; Email: 150; Text: 200
		31/07/2021	Residential: 298; Business: 10; Email: 151; Text: 201
		30/06/2021	Residential: 297; Business: 10; Email: 151; Text: 200
9	CodeRED Registrations	31/05/2021	Residential: 294; Business: 10; Email: 151; Text: 197
	CodeRLD Registrations	30/04/2021	Residential: 293; Business: 10; Email: 152; Text: 197
		31/03/2021	Residential: 294; Business: 10; Email: 154; Text: 196
		28/02/2021	Residential: 290; Business: 10; Email: 153; Text: 192
		31/01/2021	Residential: 285; Business: 10; Email: 150; Text: 189
		31/12/2020	Residential: 285; Business: 10; Email: 146; Text: 189
		2020-03-31	Residential: 243; Business: 12; Email: 134; Text: 157

2021-25 Strategic Plan - Nov. 25, 2021

Sustainable Municipal Services

	2021		2022	2		202	23						
	1 2 3	4 1	2 3	4	1		3 4	1	2	3	4		
1.1.1 Undertake water, waste	water & ele	ectrica	rates	studi	es	0	perati	ng l	niti	ativ	es		
Water						П							
Wastewater													
Electrical													
	AREA	condu	cted s	stanc	ding	offe	er for	rate	stu	dy			
	consultants for MEUs Spring 2021. Staff have had												
	initial meetings with BDR North America Inc. re												
	rate st	tudy pi	repara	ition	and	d an	ticipa	te re	poi	rt to)		
	Counc	cil by F	ebrua	ry 20	22.								
1.1.2 Implement initiatives to	increase u	ıtility c	lemar	ıd		0	perati	ng I	niti	ativ	es		
		• 1		5) (1				D:1					
		cil appı					_			uly			
		21. Upc 						•		_	7.		
		usie st	_		•					ec	14		
		ng. Dis								_ :			
	lundir	ng sup	port fo	or HC	JIVIE	: Pro	ogram	ı exp	Jan	Sior	1.		
1.1.3 Complete water and wa	stewate <u>r s</u>	ystem	diagr	ost <u>ic</u>	CS	Q	perati	ng <u>l</u>	nit <u>i</u>	ati <u>v</u>	es		
Water						П			П				
	Water	Distril	outior	ı Sys	tem	ı Au	dit wi	th X	yler	n Ir	ıc.		
	comp	leted, r	eport	on C	Cour	ncil's	s Nove	emb	er 2	25			
	meeti	ng age	enda.										
Wastewater													





Equitable & Inclusive Growth

	2021	2022	2023	2024										
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4										
2.1.1 Complete Plan Mahone	Bay MPS/LUE	3 Process	Operat	ting Initiative										
	Council has delayed phase 2 public													
	engagement process with Upland Planning +													
	Design; d	raft MPS/LUE	documents	under										
	developm	nent now. Eng	gagement pr	ocess										
	anticipate	ed in January	- February 20)22.										
2.1.2 Develop and implement	Housing Stra	itegy	Operati	ng Initiatives										
2.2.1 Review service levels and	align with re	esidents' abilit	ty to pay											
2.2.2 Explore shared services a	and partnersh	ips for efficie	nt service del	ivery										
2.2.3 Establish inclusive strate	gies for provi	sion of munic	ipal services											

2.2.4 Expand existing infrastru	ıctı	ıre i	to s	upp	oort	pla	ann	ed :	gro	wth	1	Cap	oita	l Pr	oje	cts
Project 1																
Project 2																
2.3.1 Align staff capacity, capi	tala	and	ор	era	ting	g pla	ans	wit	h st	rat	egi	c pl	an			
2.3.2 Update policies and by-I	aws	for	eff	ect	ive	gov	/err	and	ce a	nd	Pla	n ir	npl	em	ent	atic
2.3.3 Prioritize public engage	mei	nt p	roc	ess	es s	sup	por	ting) Pl	an i	mp	len	nen	tati	on	
2.3.4 Regularly review progres	ss a	nd (con	tin	uall	y in	npro	ove	stra	ateç	gic	plar	<u> </u>			

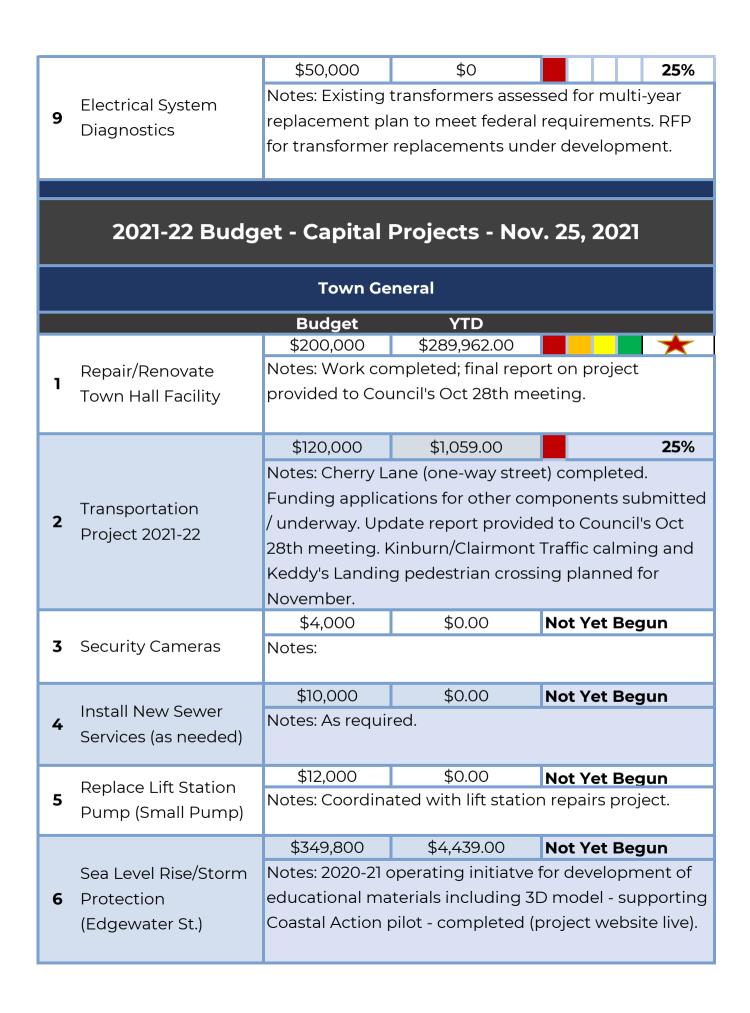
Environmental Leadership

	_																
		2021				2022			2023				2024				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
3.1.1	Community Greenhouse	Ga	ıs (C	ЭНС	i) R	edu	ıctio	on A	4cti	on	Pla	pe	rati	ng	Init	iativ	/es
3.1.2	Expand home heating p	rog	ram	1								Оре	erat	ing	I Ini	tiat	ive
3.1.3	Expand electric vehicle c	har	gin	g ir	nfra	stru	ıctı	ıre					Ca	pita	ıl Pr	oje	cts
			Eq	uip	me	nt r	ece	eive	d, ir	nsta	llat	ion	s to	be			
			cor	mpl	lete	d b	y st	aff	in N	100	eml	ber	(to	wn	hal	Ι,	
			ma	rin	a, c	lairı	moi	nt s	tre	et, N	ИВС	C, fir	e h	all,	ma	in	
			str	eet)). Di	iscu	ıssio	ons	cor	ntin	ue	re li	nde	epei	nde	ent	
			Sto	ore l	loca	atio	n.										

3.1.4 Invest in rene	wables (e.g., com	nmunity solar garder	n) Cap	ital Project
	F	ederal/Provincial fund	ding accouncen	nent for
	CC	ommunity solar gard	ens took place a	at Michael
	0	'Connor Memorial Ba	andstand July 8,	2021.
	C	ontribution agreeme	ent signed, work	to begin
	01	n site Spring 2022. Co	ommunity Oper	n House
	to	ook place November	4th, 2021.	
		·	,	
3.1.5 Support region	onal initiatives th	at contribute GHG re	duction perating	a Initiatives
	0	ngoing discussions o	concerning region	onal
		ansit system; Mayor ı		
		itizens for Public Trar	•	
		epresentatives of other		
3.2.1 Develop and		ies / by-laws support	•	
Bevelop and	implement polic			Ticasares
3.2.2 Invest in infra	structure (shore)	ine and stormwater	manageme6#n	ital Project
JIIIVOSC III IIIII O	stractare (shorer	The ana scommwater		
3.3.1 Urban Forest	Management Pl	an (including parks)	Operatin	g Initiative
orbann orest				
3.3.2 Invest in infra	structure (straigi	ht pipes) and land ac	auisitions Capit	tal Proiects
Project 1	strastare (straigh			
Project 2				
	cognition of the	value of natural asse	ts Operating	g Initiatives
Enoodrage re				

2021-22 Budget - Operating Initiatives - Nov. 25, 2021

L								
L	_		Budget	YTD				
		2021 Asset	\$12,000	\$0			25%	
	1		Notes: AIM Network Cohort Program 2.0 began Nov 10,					
		Management Project	2021 (expected	to run Feb. 2022).				
		A '1 '1''	\$25,000	\$0	Not Y	et Beg	jun	
	2	Accessibility	Notes: Initial me	eetings underway v	with M	oC/Lui	nenburg	
		Operational Plan	County Accessil	oility Coordinator (MoC).			
			\$4,000	\$0			25%	
	_	Park Cemetery Mapping Project	Notes: Commur	nity Works Progran	n fund	ing no	W	
	3		anticipated, sta	ff working with NS	CC to i	dentify	/	
			opportunities w	rith students.				
Н		MPS / LUB Update - Year 2	\$31,000	\$0			50%	
	4			underway with U	pland I	Planni	ng and	
			Design.	·	•			
L				·				
	5	Housing Strategy	\$30,000	\$0	Not Y	et Beg	jun	
	<i>-</i>	Development	Notes:					
			\$60,000	\$9,385			75%	
		Water System	Notes: Water au	ıdit with Xylem Inc	. comp	leted.	Report	
	6	Diagnostics	included on No	vember 25 Council	Mtg. a	genda	a. Staff	
		Diagnostics	following up on	recommendations	s (iden	tified I	eaks).	
			\$5,000	\$0			25%	
	7	Electric Utility Rate	Notes: Initial me	eetings underway \	with B[DR No	rth	
	7	Study	America Inc. (se	lected via AREA's r	equest	t for st	anding	
			offer process).					
			\$12,000	\$0			25%	
	8	Electric Utility "Grow	Notes: EV home	charger pilot app	roved J	July 29	, 2021,	
		the Load" Initiatives	will be launched	d Q4 2021-22.				
_								



	Durchasa EV for	\$30,000	\$0.00	Not Yet Beg	gun		
7	Purchase EV for Demonstration	Notes: Report to	o Council anticipat	ed in January	y 2022.		
		\$5,805,686	\$10,362.00		5%		
		Notes: ICIP funding for solar garden approved.					
	Solar Garden	Contribution ag	greement between	Mahone Bay	/,		
8	Development	Berwick, Antigo	nish and the Provi	nce signed. \	Nork		
	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	continues re se	rvice corridor, addi	tional design	details.		
		Installation of e	quipment anticipa	ted to begin	in the		
		Spring of 2022.		_			
		\$50,000	\$0.00	D 1	25%		
	Fix/Repair Bayview Cemetery Fence		anticipated under				
9			and Streetscaping p		quest for		
			Nov 17th, awarded t	.o Cytizen			
	Renovate Comfort Station for Year	Developments. \$6,000	\$4,155.00		*		
				nsulation co	mpleted.		
10		Notes: Installation of heaters and insulation completed. Comfort Stations approved to operate until Christmas					
	Round Use	break this year.					
	D.:: \\/-! -+\/! C/	\$10,000	\$0.00	Not Yet Beg	gun		
11	Drill Well at VIC (as needed)	Notes: As requir	red.				
		\$40,000	\$0.00		5%		
12	Lift Station Repairs	Notes: RFP for v	vork under develor	oment with 0	CBCL		
		Ltd., to be issue	d in early Decemb	er.			
		\$10,000	\$0.00		75%		
		Notes: Signs ord	dered for Edgewate	er St. The co	rrect		
13	Speed Signs	<u> </u>	Nov 9th but radar		e with		
		·	bilities for downloa	<u> </u>			
		Installation now	v scheduled for ear	ly Decemebe	er.		
		\$32,000	\$4,985.00		75 %		
14	PAA Pilot Project	Notes: Project is	s in final stages of c	completion w	ith staff		
			the recommendati		nal report		
		for modification of chemical building.					

		\$12,000	\$0.00		50%	
				ve been ins		
15	Waste Receptacles	Notes: Cigarette butt recyclers have been installed. 10 Dog Waste receptacles / bag dispensers have been				
		installed.	t 0.00			
		\$20,000	\$0.00	Not Yet B		
	Aquatic Garden		club beautification			
16	Entrance	entrance comp	lete; signage to be	e designed/i	nstalled	
	Littidiice	over winter. Add	ditional access cor	nsiderations	pending	
		accessibility sta	ndards.			
	\A/le auf Davasius /as	\$5,000	\$3,129.00		*	
17	Wharf Repairs (as	Notes: Rockwal	l Repairs & Wheel	Guard insta	lled.	
	needed)					
		\$20,000	\$0.00	Not Yet B	egun	
		Notes: Staff have prepared and submitted two of three				
18	Bandstand - Phase 3	planned funding applications.				
		\$15,000	\$12,335.00		75%	
	Town Hall Furnishings	Notes: Furnishings, furniture and equipment installed.				
19	- Furniture &	Staff following up on additional input from Council.				
	Equipment	_	•	•		
		\$50,000	\$5,214.00	Not Yet B	eann	
	Home Heating		e modelling repor		_	
20	Program - Town		ting project comp			
	Portion	to Council's Dec		neced, to be	presented	
	Lina Danlacament	\$448,350	\$0.00	Not Yet B	ogup	
	Line Replacement -		on ICIP Funding	NOL YEL B	eaun	
21		Jess. Warting	anding			
	Main					
	Line Replacement -	\$1,355,725	\$0.00	Not Yet B	egun	
	Ente Replacement	Notes: Waiting on ICIP Funding				
22	•	Notes: Waiting	on ICIP Funding			
22	•	Notes: Waiting	on ICIP Funding			

		Line Replacement -	\$163,705	\$0.00	Not Yet E	Begun
2	23	Main St. West - Civic 5	Notes: Waiting	on ICIP Funding		
		to Civic 147				
L						
		Line Replacement -	\$782,145	\$0.00	Not Yet E	Begun
2	24	Long Hill Rd. to WTP	Notes: Waiting	on ICIP Funding		
		Line Extension - Main	\$132,965	\$0.00	Not Yet E	Begun
2	25	St. East - Civic 932 to Civic 994	Notes: Waiting	on ICIP Funding		
		Davida a Calbanta an	\$10,638	\$9,589.00		*
2	Replace Culverts on		Notes: All culver	ts and ends install	ed. Lanew	vay asphalt
		Longhill Rd.	being installed	late November.		
			Fire Serv	vices		
			\$3,052,000	\$1,018,555.00		75%
		Notes: Construction of Phase 1 is well underway. The				
	1	Build New Fire Station	addition of Pha	se 2 pushed back t	he timelin	ie
				n expected compl	etion date	of
			February 2022			
			4			
	New Digital Radio's		\$12,500	\$0.00		75 %
	2	_	Notes: New radi	\$0.00 os have been orde	red. Shou	
	2	New Digital Radio's and Pagers		·	red. Shou	
F	2	and Pagers	Notes: New radi	·	red. Shou	ld be
	3	and Pagers Replace Pumper	Notes: New radi arriving shortly. \$675,000	ios have been orde	Not Yet E	ld be Begun
		and Pagers	Notes: New radi arriving shortly. \$675,000 Notes: Staff are	ios have been orde \$0.00	Not Yet E ing a Tend	ld be Begun der
		and Pagers Replace Pumper	Notes: New radi arriving shortly. \$675,000 Notes: Staff are	sos have been orde \$0.00 working on prepar	Not Yet E ing a Tend	ld be Begun der
		and Pagers Replace Pumper	Notes: New radiarriving shortly. \$675,000 Notes: Staff are document for p \$2,700	\$0.00 working on prepar	Not Yet E ing a Tend ew Pumpe	Id be Begun der er Truck. 75%
	3	and Pagers Replace Pumper Truck	Notes: New radiarriving shortly. \$675,000 Notes: Staff are document for p \$2,700	\$0.00 working on prepar rocurement of a new \$0.00 ve been ordered th	Not Yet E ing a Tend ew Pumpe	Id be Begun der er Truck. 75%
	3	and Pagers Replace Pumper Truck	Notes: New radiarriving shortly. \$675,000 Notes: Staff are document for p \$2,700 Notes: iPads have	\$0.00 working on prepar rocurement of a new \$0.00 ve been ordered the	Not Yet E ing a Tend ew Pumpe	Id be Begun der er Truck. 75%
	3	and Pagers Replace Pumper Truck	Notes: New radiarriving shortly. \$675,000 Notes: Staff are document for p \$2,700 Notes: iPads had be arriving shorts.	\$0.00 working on prepare rocurement of a new \$0.00 ve been ordered the tly.	Not Yet E ing a Tend ew Pumpe arough Be	Id be Begun der er Truck. 75% II. Should
_	3	and Pagers Replace Pumper Truck iPads for Fire Vehicles	Notes: New radiarriving shortly. \$675,000 Notes: Staff are document for p \$2,700 Notes: iPads had be arriving shortly.	\$0.00 working on prepare rocurement of a new \$0.00 ve been ordered the tly. \$2,219.65	Not Yet E ing a Tend ew Pumpe arough Bel red to repl	Id be Begun der er Truck. 75% II. Should 25% ace

	BA Face Masks with	\$5,000	\$2,453.00		75 %
6	Glasses	Notes: Masks ar	nd glasses interes	t have been ord	ered.
		Water U	tility		
	Connection of New	\$5,000	\$0.00	Not Yet Begu	ın
1	Water Services	Notes: As requir	red.		
	Replace Hydrants as	\$5,000	\$0.00	Not Yet Begu	ın
2	Needed	Notes: As requir	red.		
_	Install Water Meters	\$3,000	\$0.00	Not Yet Begu	ın
3	as Required	Notes: As requir	red.		
	Install Corrosion	\$10,000	\$0.00	Not Yet Begu	ın
4	Coating in Chemical Room	Notes:			
	Doodond Flushings	\$13,000	\$689.00		25%
5	Deadend Flushings - System Extremities	Notes: EQ recei	ved.		
	Install Security	\$4,000	\$0.00	Not Yet Begu	ın
6	Cameras	Notes:			
	Install Level Control	\$2,500	\$0.00	Not Yet Begu	ın
7	Valves	Notes:			
	Flow Meter at Water	\$3,000	\$0.00	Not Yet Beau	ın
8	Treatment Plant	Notes:			
_		\$5,000	\$0.00	Not Yet Begu	ın
9	Rebuild Pump #1	Notes:			
	Repair Roof on Old	\$4,500	\$0.00	Not Yet Begu	ın
10	Water Pump House	Notes: All quote pending.	es have been gath	nered. Approval	

	Exterior Walls at	\$15,000	\$0.00	Not Yet Begun
11	Water Treatment	Notes: All quote	s have been gathe	ered. Approval
	Plant	pending.		
	Replace Compressor	\$9,500	\$0.00	Not Yet Begun
12	at Water Treatment	Notes: All quote	es have been gathe	ered. Approval
	Plant	pending.		
	Line Replacement -	\$448,350	\$1,223.00	Not Yet Begun
13	Fairmont to Civic 794	Notes: Waiting	on ICIP Funding	
	Main			
	Line Replacement -	\$1,355,725	\$1,441.00	Not Yet Begun
14	Cherry Lane to Long	Notes: Waiting	on ICIP Funding	
	Hill Rd.			
	Line Replacement -	\$163,705	\$2,424.00	Not Yet Begun
15	Main St. West - Civic 5	Notes: Waiting	on ICIP Funding	
	to Civic 147			
	Line Replacement -	\$782,145	\$0.00	Not Yet Begun
16	Long Hill to Water	Notes: Waiting	on ICIP Funding	
	Treatment Plant			
	Line Extension - Main	\$132,965	\$0.00	Not Yet Begun
17	St. East - Civic 932 to	Notes: Waiting	on ICIP Funding	
	Civic 994			
		¢100,000	¢0.00	Not Vot Bosus
	Service Extensions -	\$100,000	\$0.00	Not Yet Begun
18	Fairmont St.	Notes: Staπ rep	orts to be presente	ed to Council.
		Electric l	Jtility	
	Pole / Line	\$25,000	\$0.00	Not Yet Begun
1	Replacement as	Notes: As requir	red.	
	Required	.	4650 (00	
	New Lines from	\$60,000	\$6,794.00	
2	Longhill to		mpleted in Novem	ber with
	Blockhouse		ility Consulting.	
7	Pad Mount	\$100,000	\$0.00	50%
3	Transformers	Notes: In progre	ess.	

		Replacement of	\$20,000	\$0.00	Not Yet Begun	
l	4	Edgewater Street	Notes: Funding	application submi	tted.	
		Lamps				
			\$11,000	\$0.00	Not Yet Begun	
	5	New Digital Meters (As Needed)	Notes: As required.			
Г		Home Heating	\$50,000	\$0.00	Not Yet Begun	
	6	Program (Utility Portion)	Notes: See note	above (Town Porti	on).	
		NI T f / A -	\$35,000	\$0.00	Not Yet Begun	
	7	New Transformers (As Needed)	Notes: As requir	red.		

2022 Council & Committee Meeting Schedule

Police Advisory Board

Council

Budget Meeting

Heritage Advisory Committee

Planning Advisory Committee
Watershed Advisory Committee

IMPORTANT NUMBERS

Emergency......911

Police902-634-8674 Power/Water/Sewer Interruption....902-624-8327

After Hours - Power/Water/Sewer

Office Closed

After 4:30pm call.....902-543-3251

Policy & Strategy Committee
Audit & Finance Committee
Cemetery Committee
Asset Management Committee

January 2022								
S	Μ	\vdash	\vee	Η	L	S		
						1		
2	3	4	5	6	7	8		
9	10	11	12	13	14	15		
16	17	18	19	20	21	22		
23	24	25	26	27	29	29		
30	31							

	February 2022							
S	Δ	\vdash	\vee	Η	L	S		
		1	2	3	4	5		
6	7	8	9	10	11	12		
13	14	15	16	17	18	19		
20	21	22	23	24	25	26		
27	28							

March 2022								
S	Δ	\vdash	\vee	\vdash	L	S		
		1	2	3	4	5		
6	7	©	o	10	11	12		
13	14	15	16	17	18	19		
20	21	22	23	24	25	26		
27	28	29	30	31				

April 2022							
S	Μ	\vdash	\vee	\vdash	LL	S	
					7	2	
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	

	May 2022							
S	М	Т	W	Т	F	S		
1	2	3	4	5	6	7		
8	9	10	11	12	13	14		
15	16	17	18	19	20	21		
22	23	24	25	26	27	28		
29	30	31						

June 2022							
S	М	Т	W	Т	F	S	
			1	2	3	4	
5	6	7	ω	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30			

July 2022								
S	Μ	\vdash	\vee	\vdash	L	S		
					-	2		
3	4	5	6	7	8	9		
10	11	12	13	14	15	16		
17	18	19	20	21	22	23		
24	25	26	27	28	29	30		
31								

August 2022								
S	Δ	\vdash	\vee	\vdash	F	S		
	-	2	3	4	5	6		
7	8	9	10	11	12	13		
14	15	16	17	18	19	20		
21	22	23	24	25	26	27		
28	29	30	31					

September 2022							
S	М	Т	W	Т	F	S	
				7	2	3	
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30		

М	\dashv	\ A /			
		VV	Т	F	S
					1
3	4	5	6	7	8
10	11	12	13	14	15
17	18	19	20	21	22
24	25	26	27	28	29
31					
	10 17 24	10 11 17 18 24 25	10 11 12 17 18 19 24 25 26	10 11 12 13 17 18 19 20 24 25 26 27	10 11 12 13 14 17 18 19 20 21 24 25 26 27 28

November 2022							
S	М	Т	W	Т	F	S	
		1	2	3	4	5	
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	
27	28	29	30				

December 2022							
S	М	Т	W	Τ	F	S	
				7	2	3	
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30	31	



Please see the Reverse for the 2022 Solid Waste Collection Schedule



Town of Mahone Bay

Staff Report RE: COVID-19 Vaccination Policy Nov 25th, 2021

General Overview:

This report is intended to provide Council with a draft COVID-19 Vaccination Policy for consideration.

Background:

At the regular meeting of Council on October 28th, 2021 the following motion was passed:

"THAT Council direct staff to prepare a draft COVID-19 Vaccination Policy, requiring full immunization of all Town employees, including Councilors, to be presented to Council no later than the November 25, 2021 Council meeting and implemented no later than January 31, 2022."

Analysis:

Staff have reviewed municipal COVID-19 vaccination policies and best practices throughout Nova Scotia in developing the draft COVID-19 Vaccination Policy for Council's consideration. The draft policy is attached to this staff report.

Financial Analysis:

No significant financial impact is anticipated.

Climate Analysis:

No significant climate impact is anticipated.

Strategic Plan:

Not applicable.

Recommendation:

It is recommended that, after due consideration at the regular meeting on December 14th,

THAT Council adopt the draft COVID-19 Vaccination Policy as presented.

Attached for Council Review:

• Draft COVID-19 Vaccination Policy

Respectfully Submitted,

Dylan Heide

Town of Mahone Bay CAO

COVID-19 Vaccination Policy



1.0 Statement

The Town of Mahone Bay is committed to providing a safe working environment for our employees, Council, and members of the public with whom we interact. Protective measures within the workplace are the responsibility of the employer. The purpose of this policy is to provide the Town's expectations and requirements of staff, Council, volunteers, Board, and committee members with respects to COVID-19 vaccination requirements so as to protect all workers and the public we serve.

2.0 Scope

This Policy applies to all Town of Mahone Bay employees, Council, volunteers, Board, and committee members regardless of workplace or worksite location, including those who are working remotely. This Policy does not apply to members of the public who are accessing Town services and programs however Town staff may require proof of vaccination status from members of the public in accordance with Provincial directives.

The Town may, at the discretion of the Chief Administrative Officer, apply this Policy to contractors who are working on Town premises.

3.0 Definitions

"Fully vaccinated" means receipt of 1 dose of a vaccine authorized as a 1 dose vaccine series such as Janssen plus 14 days, or 2 doses of a vaccine authorized as a 2 dose vaccine series such as Pfizer, Moderna or AstraZeneca plus 14 days, or a complete series of any other World Health Organization authorized series of COVID-19 vaccine such as Sinopharm or Sinovac plus 14 days.

"Not fully vaccinated" means no receipt of any vaccine dose or receipt of 1 dose of a vaccine authorized as a 2 dose vaccine series such as Pfizer, Moderna or AstraZeneca plus 14 days.

"Vaccine" means a vaccine against COVID-19 that has been approved by either the Public Health Agency of Canada or the World Health Organization.

4.0 Provisions

4.1. The Town of Mahone Bay will require all employees, Council, volunteers, Board, and committee members to be fully vaccinated against COVID-19 and provide proof of vaccination by January 31, 2022. Proof of vaccination records will be kept confidential and used only as required to administer the Policy.

- 4.2. Those who cannot be vaccinated based on an approved written medical exemption may request an exemption from the CAO, by providing the appropriate documentation from a qualified medical professional as determined by the Province of Nova Scotia. If the exemption request is accepted by the CAO, those people must participate in the Rapid Testing Program. At-home testing kits will be available at no cost to employees participating in the Rapid Testing Program.
- 4.3. Any persons who fail to comply with the requirements of this policy by January 31, 2022 will be placed on an immediate unpaid leave of absence and may be subject to disciplinary action, up to and including dismissal.
- 4.4. Based on operational needs, positions vacated by the unpaid leaves of absence may be temporarily filled.
- 4.5. Vaccinations will be only one part of the employer's steps to maintain a safe workplace. The Town of Mahone Bay may continue to implement other measures, such as wearing a mask and physical distancing even if the Province discontinues those steps.

Clerk's Annotation for Official Policy Book				
Date of notice to Council Members of Intent to Consider [minimum 7 days notice] November 25, 2021				
Date of Passage of Policy				
Town Clerk	 Date			



Town of Mahone Bay

Staff Report RE: Water System Loss Audit November 25th, 2021

General Overview:

The purpose of this report is to present Council with the findings of the recent audit conducted to quantify losses in the Town's water system.

Background:

At Council's regular meeting on July 13th, 2021 the following motion was passed:

"THAT Council direct staff to engage Xylem Inc. to perform the works described in the Identification and Reduction of Non-Revenue Water Proposal."

Analysis:

The Identification and Reduction of Non-Revenue Water report prepared for the Town by Xylem Canada Inc. is attached to this report for Council's consideration. This report represents the results of water system audit activities carried out by Town staff and Xylem Canada Inc. to quantify water loss in the Town's water system. The report's recommendations are summarized on page 26 and staff are now working to implement these recommendations, including addressing leaks detected in the water system.

Financial Analysis:

Reducing water system losses reduces operating costs. As per page 24 of the attached report targeted reduction in water system losses could reduce the water utility's costs by as much as \$34,598 per year.

Many of the recommendations of the attached report can be implemented by staff within existing budget allocations. Recommendations requiring additional budget allocations should be considered in Council's 2022-23 annual budget process.

Climate Analysis:

Reducing water system losses reduces the energy consumed in treating and distributing water, which reduces the Town's carbon footprint. As per page 24 of the attached report, targeted reduction in water system losses could reduce GHG emissions resulting from water treatment by as much as 22.6 Tonnes of CO2 per year (of an estimated 61.7 Tonnes attributable to the Town's water treatment).

Strategic Plan:

- 1.1. Improve Performance of Town-Owned Utilities
 - Reduce water loss, increase flow capacity, reduce service disruptions, and increase demand.

Strategic Actions:

• Complete water and wastewater system diagnostics

Recommendation:

It is recommended,

THAT Council direct staff to provide a staff report highlighting the recommendations of the water system audit for which additional budget allocations would be required for implementation, ahead of the 2022-23 annual budget process.

Attached for Council Review:

• Identification and Reduction of Non-Revenue Water Report (Xylem Inc.) with appendices

Respectfully Submitted,

Dylan Heide

Town of Mahone Bay CAO

<u>Town of Mahone Bay</u> Identification and Reduction of Non-Revenue Water

Final Report

The Town of Mahone Bay is aware of the importance of identifying and reducing Non-Revenue Water (NRW) in its water distribution system. Following a meeting with Town staff, to obtain an initial understanding of the operation of the water supply and distribution system, we developed a methodology to identify and reduce NRW.

We recommended a "Top Down" approach of completing an American Water Works Association (AWWA) water balance, plus a "Bottom Up" approach with night flow analysis, night step testing and leak detection. This double approach is recommended by the AWWA, and is recognised as a Best Management Practice (BMP), for water systems.

Part One of this report represents the water audit, AWWA software results, and recommendations from the "Top Down" approach. **Part Two** of the report covers the "Bottom Up" approach, of night flow analysis, night step testing, along with leak detection and repair. Finally **Part Three** of the report provides a summary of the recommendations from both the "Top Down" and "Bottom Up" approach.

Benefits of Reducing Leakage

For leakage from the water distribution system, this pro-active approach of identifying leaks before they surface, referred to as "unreported leakage", has significant benefits for Mahone Bay, which include:

- Finding leaks before they surface reduces the time they are leaking, referred to as "run time"
- Leaks can be repaired before they surface, in a planned manner, frequently during normal hours of operation, not as emergency work, often outside normal hours
- Damage to property caused by the leak is reduced or eliminated
- Using the distribution flowmeter at the water plant, the measured night flow can be monitored, and limits set when there is enough leakage to be economically found
- Less leakage, means reduced costs of electricity and chemicals for pumping and treatment, and reduced CO2 emissions to the environment, related to less electricity production

Part One - "Top Down" AWWA Water Audit

1.0 Introduction

The AWWA recommends that a water audit be completed annually, and for Mahone Bay, this was for the full year of 2020. Town staff were involved at every stage of the water audit, working alongside the consulting team, and will now be able to complete the audit in future years.

NRW comprises of three main components, which are as follows:

- 1. Leakage from the water distribution system, referred to by the AWWA as *Real Losses*
- 2. Under-registration of customer water meters, theft, and billing system errors, referred to by the AWWA as *Apparent Losses*
- 3. Water use by the utility by operations staff, for typically mains flushing, hydrant flow tests etc. This is referred to by the AWWA as *Unbilled Authorised Consumption*

In addition, the AWWA, in order to improve the understanding of NRW, and its messaging, has stated that NRW should be assessed in terms of **the three V's**:

- Volume of Real Losses, Apparent Losses and Unbilled Authorised Consumption
- Value in terms of costs to produce and distribute water for the Real Losses and Unbilled Authorised Consumption, plus uncaptured revenue from the Apparent Losses
- Validity establish the quality of data gathered

2.0 Data Gathering Process and Water Audit

The data required for the water audit was provided by the Town staff, and in order to facilitate this process, a questionnaire, which describes all areas of water use was sent to the Town. This questionnaire has been developed by Kingsley Blease over the last 15 years, during the completion of over 50 water audits / balances.

Obtaining data was a series of tasks - as data was received it was recorded in the questionnaire. The updated questionnaire was sent back to the Town, with the areas noted where data was still needed. This process was repeated three times, which is typical for water audit data collection. A copy of the third version of the questionnaire, is included as **Appendix A**.

As data was received, it was entered into a spreadsheet, which has a tab for each type of data gathered – the spreadsheet is attached as **Appendix B**. All the raw gathered data, assumptions made, and calculations completed are shown in each tab. The final aggregate values from each tab were then used to enter into the AWWA software.

The water balance was performed using the AWWA water audit software. The current version of the software is 6.0, released by AWWA in December, 2019, and this was used for the audit. A copy of the completed audit for Mahone Bay is included as **Appendix C**. The Interactive Data Grading scoring task was completed as a team, with Dylan Heide, and Meghan Rafferty, working with Kingsley Blease, to review the series of questions on data validity. The best fit answers were selected, which can be reviewed in the Interactive Data Grading tab of the software.

3.0 Summary of Gathered Data

A summary of the gathered data is shown in the following table. This summary is included as the first tab of the spreadsheet in **Appendix B**.

	January 1 to December 31, 2020					
Item	Water Balance Item	Volume (m3 per year)	Units	Comments		
1	Volume from Own Sources	197,674	m3			
2	Source Meter inaccuracies		m3	Unknown		
3	Water Imported	0	m3			
4	Water Exported	0	m3			
5	Billed Metered	86,831	m3			
6	Billed Unmetered	0	m3			
7	Unbilled Metered	0	m3			
8	Unbilled Unmetered	6,455	m3			
9	Unauthorized Consumption	217	m3	Use AWWA default of 0.25%		
10	Customer Meter Inaccuracies	2,692	m3	Estimate based on age is 3.1% under-registration		
11	Data Handling Errors	217	m3	Use AWWA default of 0.25%		
12	Length of Mains	14	km			
13	Number of Services	490	no			
14	Av Length of Customer Service Line	24.3	m	80 ft average		
15	Av Operating Pressure	57.0	m	81 psi		
16	Total Annual Cost of Operating		\$ / Yr	Not required for AWWA software version 6.0		
17	Customer Water Rates	\$3.16	\$/m3			
18	Variable Water Production Cost	\$476.61	\$/ML			

4.0 Review of Data Collected, and Analysis

In order to provide an understanding of the **Volume**, **Value** and **Validity**, of the gathered data, the following review is provided:

4.1 Volume of Water Supplied

The Town of Mahone Bay is supplied from Oakland Lake, and water is pumped into an 8 inch cast iron main, which delivers water to the water treatment plant (WTP). There is a 3 inch magnetic inductive (mag) flowmeter at the raw water pumphouse, and another mag meter (3 inch) at flocculation tanks inlet, in the WTP.

After treatment, water is pumped upto a clear water tank, which then supplies water to the Town. On the outlet main of the clear well, there is a third mag meter, which is 8 inch, and is located inside the WTP. Finally on the 8 inch cast iron distribution line, there is a



pressure reduction valve (PRV), which is located close to the WTP. The volume of water supplied to the distribution system in 2020, recorded by this flowmeter, was 197,674 m3. Magnetic inductive flowmeters are the standard for industry water production flowmeters. Generally manufacturers require a minimum of five diameters of straight pipework before the flowmeter, and two after. During the virtual site visits, Meghan Rafferty took measurements of the pipework before and after the meters. It can be seen from the following tables, that all three meters met or exceeded these conditions.

Flowmeter Details - Raw Water Pump House				
<u>Make</u>				
Line Diameter	3	inch		
Inlet pipework dia	3	inch		
Straight pipe length	22.5	inch		
Straight pipe length	7.5	diameters		
Outlet pipework dia	3	inch		
Straight pipe length	12	inch		
Straight pipe length	4	diameters		

Flowmeter Details - WTP - Inlet to Floc Tank				
<u>Make</u>				
Line Diameter	3	inch		
Inlet pipework dia	3	inch		
Straight pipe length	14	inch		
Straight pipe length	4.7	diameters		
Outlet pipework dia	3	inch		
Straight pipe length	12	inch		
Straight pipe length	4	diameters		



Flowmeter Details - WTP - Treated Water				
<u>Make</u>	<u>Rosemount</u>			
Line Diameter	8	inch		
Inlet pipework dia	8	inch		
Straight pipe length	54.2	inch		
Straight pipe length	6.8	diameters		
Outlet pipework dia	8	inch		
Straight pipe length	23	inch		
Straight pipe length	2.9	diameters		

It is understood that the 3 inch mag meter on the inlet of the flocculation tank is not functioning correctly, and may be replaced. For the flowmeter on the outlet of the clear well, which supplies water along the distribution line to Town, generally key meters like this are tested for accuracy, so that will be a recommendation included in this report.

The normal test, is an electronic test, which can involve checking both the sensor (or flow tube in the watermain), and the transmitter (which converts the 4-20 mA signal to flow, and sends that data to SCADA). In addition, the AWWA recommends that insitu testing can also be performed. Both these methods will be reviewed in the recommendation section.

In order to arrive at the **Value** of water produced, the variable cost was calculated. Variable costs include the electricity used to pump and treat the water, and also includes the chemical costs. For Mahone Bay there are two main pumping stations, at Oakland Lake raw water pumphouse, and the WTP in Town.



These costs were gathered, and when divided by the volume of water produced, give the cost per unit volume, both in m3 and megalitres. The following table shows these costs, along with how the variable cost was calculated:

2020 Variable Cost					
Cost					
Electricity - Raw Water Pumphouse	\$17,872.87				
Electricity - Water Treatment Plant	\$27,429.17				
Chemicals	\$48,910.89				
Total Cost \$94,212.93					
Volume Supplied	197,674	m3			
	197.674	ML			
Cost Per m3	\$0.477				
Cost Per ML	\$476.61				

4.2 Customer Meter Volumes

The Town's customer meters have both imperial gallon registers, and metric m3 registers. There are several commercial customer meter sizes, with both imperial and metric registers. Similarly, the residential customer meters have both imperial and metric registers.

There are three routes for meter reading. One of the routes is read and billed each month, for the larger commercial sites. The other two routes are read and billed bi-monthly. The following table, which was provided by the Town, during the data gathering process, summarises these customer meters:

Description
5/8" Imperial Bi-monthly Com.
1" Imperial Bi-monthly Com.
1 1/2" Imperial Bi-monthly Com.
5/8" Imperial Monthly Com.
3/4" Imperial Monthly Com.
1 1/2" Imperial Monthly Com.
2" Imperial Monthly Com.
5/8" Metric Bi-monthly Com.
1" Metric Bi-Monthly Com.
1 1/2" Metric Bi-monthly Com.
5/8" Metric Monthly Com.
1 1/2" Metric Monthly Com.
2" Metric Monthly Com.
Special Water Meter 1 1/2" Metric Monthly
5/8" Imperial Bi-monthly Res.
5/8" Metric Bi-monthly Res.

Mahone Bay bills customers for water based on the volume used, along with a base charge. In 2020, there were two periods in that year, with different water volumetric rates – January to March, and April to December. Wastewater charges are included in the Tax Rate.

The weighted **Value** customer rates, for water only in 2020, are shown in the following table:

Customer Water Rates				
Period	Water Only			
	<u>1,000 gallons</u> <u>m3</u>			
January to March	\$15.26 \$3.36			
April to December	\$14.08 \$3.10			
Average \$14.38 \$3.16				

4.3 Unbilled Authorised Volumes

In Mahone Bay there are two bleeders, which are locations where water flows continuously to maintain water quality. These two bleeders contribute the major part of unbilled authorised consumption. There is also water used at the Spring and Fall flushing, as well as other flushing throughout the year. In addition, water is used as part of watermain repairs, and in November 2020, the clear wells were cleaned. The following table shows the volumes of all these uses:

Unbilled Authorised Consumption		
Description	Volume (m3)	
Seasonal flushing - Spring (unidirectional)	360.6	
Seasonal flushing - Fall (unidirectional)	403.8	
Flushing as needed	504.0	
Fire flow tests	0.0	
Watermain repairs and subsequent flushing	349.0	
Clear well cleaning, in November, 2020	302.0	
Bleeders - 2 operating continuously	4,300.0	
Fire Department 2 inch fill line	0.0	
Fire Deparment - no fills from hydrants	0.0	
Fire Department - pumper trucks, vac trucks, sweepers, construction totes	236.0	
Total	6,455	

4.4 Other Data

The AWWA recommends that the balance includes small volumes of water for data handling errors in the reading and billing systems, at a value of 0.25% of billed volumes, so that has been included. In addition, AWWA also recommends including 0.25% of water supplied volumes for unauthorized consumption, or theft.

The other collected data is for the physical water distribution system. This included the km of mains, number of services, number of blow offs, and water pressures in the distribution system.

5.0 AWWA Software Run

The gathered data was entered into the AWWA – WLCC (American Water Works Association – Water Loss Control Committee) software program (version 6.0), which is included as **Appendix C**. All volumes for this program are entered as Megalitres (ML) - one thousand cubic metres, and the data is for a full year – 2020 for this audit.

The Data Validity Score is 46 (out of 100), which puts Mahone Bay at the top of Tier II (26 to 50 range). This score represents the quality of data gathered in the water audit. The software Worksheet provides three areas to improve the audit reliability (increased score), which can be most improved by the following three areas:

- 1. Volume from own sources
- 2. Billed metered volume
- 3. Customer meter inaccuracies

The three the key values that have a financial effect on the operation of municipal water systems are the cost of Real Losses (leakage), and the loss in revenue from Apparent Losses (customer meter under-registration, unauthorized consumption, billing etc.), and the cost of Unbilled Authorised consumption (mainly operations use). For the Town of Mahone Bay, the **Volumes** and **Values** from the AWWA software analysis are shown in the following table:

Non-Revenue Water Components Summary					
	Variable	Customer			
			Cost	Water Rates	
	ML/Year	\$/Year	<u>\$/m3</u>	<u>\$/m3</u>	
Real Losses	101.2	\$48,221	\$0.477		
Apparent Losses	3.2	\$10,150		\$3.160	
Unbilled Authorised Consumption	6.5	\$3,077	\$0.477		
Non-Revenue Water Totals	110.9	\$61,448			

The AWWA software produces various Key Performance Indicators (KPIs), which are shown in the Dashboard tab of the software (**Appendix C**). The AWWA's Water Loss Control Committee (WLCC) recommended a change in the KPIs, and these changes are included in the new version 6.0, of the water audit software. Historically utilities used "unaccounted for water" (UFW) percentage, which was imprecise. Version 5.0, of the AWWA free water audit software did include effective KPIs, but also had two percentage indicators, which were considered a weakness by the AWWA WLCC.

Typically two main KPIs historically have been used. The first, which is not produced by version 6.0 of the AWWA software, is **Volume** of NRW, as a percentage of water supplied. However, in order to compare to previous water audits, using version 5.0, where this value



is calculated, it is shown in the following table. For Mahone Bay the percentage of NRW is 56.1%.

Percentage of Non-Revenue Water				
Volume of Water Supplied 197.7 ML				
Volume of Non-Revenue Water	110.9	ML		
Percentage of Non-Revenue Water	56.1%			

The second KPI regularly used is Infrastructure Leakage Index (ILI), and this is still produced by the AWWA software, version 6.0. For Mahone Bay the ILI is 5.2. ILI is the ratio of Current Annual Real Losses (CARL) to Unavoidable Annual Real Losses (UARL). In simple terms, for any water system, there are water losses that are not economic to find and repair, such as very small leaks and weeps, and this is UARL.

There are two new KPI's, which are:

- <u>Total Loss Cost Rate</u> expressed in *\$\service connection/year*, with one expression for Real Losses (leakage), and one for Apparent Losses. This combines **Volume** with **Value**, in one KPI for Mahone Bay this is *\$\service 119.36 per connection per year*. This is divided between Real Loss Cost Rate of \$98.64, and Apparent Loss Cost Rate of \$20.71, per connection per year.
- Normalised Water Losses, expressed in *volume/service connection/day* for Mahone Bay this is 585 litres per connection per day. This is divided between Unit Real Losses of 567 litres, and Unit Apparent Losses of 18 litres, per connection per day. To put this volume in context, households could be using between 700 and 1,000 litres per day

The Dashboard provides percentiles (%iles) from the AWWA WLCC data base of level 1 validated water audits, across North America. With these shown, the auditor can see how their utility results compare to other utility audits. For the Town of Mahone Bay, it can be seen by inspection of the Dashboard, that for both the Total Loss Cost Rate, and Normalised Water Losses (Unit Total Losses shown on the dashboard), they are at the 90th percentile, demonstrating that NRW is high.

The breakdown into Real and Apparent Losses, shows that it is the Real Losses that are at the 90th percentile, while Apparent Losses are in the Median to 75th percentile.

6.0 Environmental Impacts of Non-Revenue Water

The environmental cost of NRW is related to the electricity used to pump the raw water from Oakland Lake, and the electricity used to treat that water, and pump it up to the Clear Well. Production of this electricity releases carbon dioxide (CO2) to the atmosphere, with the associated negative environmental impact.

Water identified as Real Losses, and Unbilled Authorised Consumption, are the two components of NRW that cause CO2 emissions, as well as being a financial burden to Mahone Bay, from the cost of the electricity, and chemicals used for treatment. The other component of NRW, Apparent Losses, does not have an environmental impact, but does have the financial impact of loss in revenue.

Mahone Bay produces some of its own electricity through wind turbines, and is also developing solar power. Electricity is also purchased from New Brunswick Power (NBP). The Town provided the grid intensity for Mahone Bay, which is 0.187 kg of CO2 per kWh. With this value, along with the volumes of water pumped, and the number of kWh used, the emission of CO2 was calculated. The calculation for this average 0.187 kg of CO2 is:

Mahone Bay Grid Intensity				
New Brunswick Power Mahone Bay Electric Area Renewable Fraction Mahone Bay Avera				Mahone Bay Average
kgCO2 / kWh	0.300	0.025	41%	0.187

The following two tables provide the results of this analysis, which is for the full year of 2020, to match the water audit period. The first table shows the values for the total volume of water pumped and treated in 2020, and the second table give the values for just the two NRW components of Real Losses and Unbilled Authorised consumption:

Environmental Impacts of Water Production - Full Year 2020							
Raw Water Pumping, Water Treatment and P	Raw Water Pumping, Water Treatment and Pumping to Clear Wells						
Volume of Water Produced	197,674	m3					
kWh - Raw Water pumping and Water Treatment Plant	329,835	kWh					
kWh per m3	1.669	m3					
kg of CO2 per kWh	0.187	kg					
kg of CO2 per m3	0.312	kg					
TOTAL kg of CO2 for 2020	61,679	kg Per Year					
	62	Tonne Per Year					



Environmental Impacts of Non-Revenue Water - Full Year 2020						
Non-Revenue Water (NRW) - Real Losses and Unbilled Authorised Consumption						
Volume of Water - Real Losses	101,200	m3				
Volume of Water - Unbilled Authorised Consumption	6,500	m3				
Total Volume of NRW Water	107,700	m3				
kg of CO2 per m3	0.312	kg				
TOTAL kg of CO2 for NRW for 2020	33,605	kg Per Year				
	34	Tonne Per Year				

To put these values into context, Mahone Bay's Greenhouse Gas (GHG) Reduction Action Plan (February, 2021), states that the 2016 emissions inventory for the Town were as follows:

2016 Emissions Inventory						
Electricity	8,441	CO2 Tonnes				
Transportation	4,348	CO2 Tonnes				
Buildings	2,232	CO2 Tonnes				
Solid Waste	418	CO2 Tonnes				
Water and Wastewater	72	CO2 Tonnes				

Although the water component is relatively small, the GHC reduction plan has set the goals are for a "45% reduction in emissions below the 2010 levels by 2030, and a further vision to be carbon neutral by 2050".

For further context, a typical car emits about 4.6 Tonnes of CO2 per year. Also in 2016, Mahone Bay's emissions per capita equated to 15 Tonnes of CO2



7.0 Recommendations

These recommendations are based on the "Top Down" water audit of the Mahone Bay water supply and distribution system. In parallel with this water audit, the "Bottom Up" approach of night flow analysis and step testing was recently completed, and is reported on in Part 2 of this report.

7.1 Water Supplied Volume

The AWWA recommends that flowmeters that record the volumes of water supplied into distribution systems be checked for accuracy, and the most common frequency of testing in North America is annually. Mahone Bay has three flowmeters, two on the raw water system, and one that records flow to the Town's distribution system. All three of these meters are magnetic inductive, or mag meters, and are the water industry standard.

The Town does complete a daily comparison of the recorded raw water and treated water volumes, and they are typically within 2%, which provides a level of confidence. However, it is still recommended that the treated water, 8 inch Rosemount mag meter, be checked every year.

The standard test for mag meters, is verification of the electronics of both the sensor (or flow tube in the watermain), and the transmitter (which converts the 4-20 mA signal to flow, and sends that data to SCADA). In addition, the AWWA recommends that insitu testing can also be performed. There are three methods for insitu testing flowmeters, which are either using Portable Meter Test Apparatus (for smaller meters), Inline Flow Comparison, or Reservoir Draw Down.

Because the clear well feeds directly into the treated water flowmeter, a Reservoir Draw Down test should be considered. AWWA Manual M33, Flowmeters in Water Supply, Third Edition 2018, states that accuracy is +/- 3%.

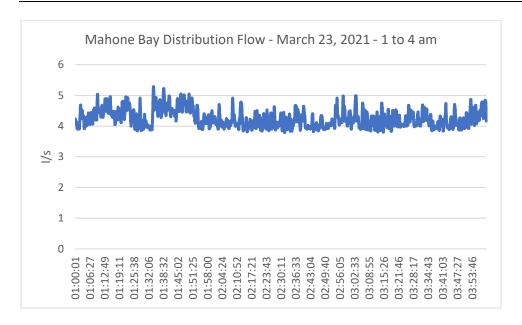
The level of effort, and costs for both electronic and insitu testing should be established, and then the most practical and cost beneficial test be completed.

7.2 Real Losses – Leakage from the Water Distribution System

The water audit has confirmed the high levels of Real Losses in Mahone Bay, which the Town were aware of. In order to identify and reduce these losses, the "Bottom Up" approach was started at the same time as the water audit.

SCADA data has been provided by the Town, for the period 1.00am to 4.00am, during the 7 days March 23 to 29, 2021. This was before any night time outside irrigation should have commenced, and the following graph shows a representative night's flow:





The average night flow of the full 7 day period is shown in the following table:

Mahone Bay Distribution Flow - 1 to 4 am					
Date	Average Night Flow (I/s)				
March 23 2021	4.25				
March 24 2021	4.33				
March 25 2021	4.25				
March 26 2021	4.24				
March 27 2021	4.30				
March 28 2021	4.25				
March 29 2021	4.31				
7 day average	4.28				

The measured flows were compared to what would be "expected" at night, which is referred to as Legitimate Night Flow, or Background Leakage, and this was estimated at 1.03 l/s. The characteristics of the water distribution system, and number of people per household, are used in the calculation. This is very much a theoretical value, and can vary by +/- 20% or more – it just gives another indication, of potential leakage in Mahone Bay.

Furthermore, working with operations staff, step tests were designed, to "home in" on sections of Mahone Bay's water distribution system where there is leakage. The site testing took place when outside irrigation was over, starting at 10.30 pm on Monday October 25, through to 5.00 am on Tuesday October 26, 2021. This will be described in the Part Two of the report.



7.3 Apparent Losses – Customer Meter and Billing System

There are 495 customer water meters, and 193 are over 22 years old. The distribution of meters by date installed and age, is shown in the following table:

Customer Water Meters						
Years Installed	Number of	Age - Years				
	Meters					
1999	193	22				
2000 to 2004	27	17 to 21				
2005 to 2009	77	12 to 16				
2010 to 2014	94	7 to 11				
2015 to 2021	102	1 to 6				
No service date	2					
Total						

For the water audit, an estimate was made of the accuracy of these customer meters. As they are mostly mechanical meters, as a group over time, they will under-register, so loosing revenue for the Town. The estimated under-registration was 3.1%. It is recommended that a number of meters be tested for accuracy, across the range of ages. As shown in the following table, a testing program of between 81 and 59 meters will provide an error of between 10% and 12%, with a 95% confidence level.

	Simple Random Sample										
	With a 95% confidence level and 50% estimate of population proportion										
Populat ion size – error margin	Unlimited	1,000,000	500,000	250,000	100,000	10,000	5,000	3,500	1,000	500	100
1%	9,604	9,513	9,423	9,249	8,762	4,899	3,288	2,565	906	475	99
2%	2,401	2,395	2,390	2,378	2,345	1,936	1,622	11,424	706	414	96
3%	1,067	1,066	1,065	1,063	1,056	964	879	818	516	340	91
4%	600	600	600	599	597	566	536	512	375	273	86
5%	384	384	384	384	383	370	357	346	278	217	79
6%	267	267	267	266	266	260	253	248	211	174	73
7%	196	196	196	196	196	192	189	186	164	141	66
8%	150	150	150	150	150	148	146	144	130	115	60
9%	119	119	119	119	118	117	116	115	106	96	54
<mark>10%</mark>	96	96	96	96	96	95	94	93	88	<mark>81</mark>	49
11%	79	79	79	79	79	79	78	78	74	68	44
<mark>12%</mark>	67	67	67	67	67	66	66	65	63	<mark>59</mark>	40

Reference: Chakrapani: C&K Deal, Market Research: Methods and Canadian Practice, 1992



When the customer meters are removed for testing, a new meter should be installed. As part of this testing program, it is recommended that Mahone Bay include an assessment of the cost and benefits of a radio reading system, to eventually replace the manual touch pad reading.

A radio module would be included with the meter register, and there are generally three ways to obtain the readings. Automatic Meter Reading (AMR) is reading by either a walkby, or drive-by system. For Advanced Metering Infrastructure (AMI), readings are "collected", from a receiver, or multiple receivers, located on a tower. There are additional benefits for both customers and utility customer services departments, beyond increases in revenues, particularly from AMI systems.

7.4 Unbilled Authorised Consumption

The unbilled authorized consumption, which is primarily operations water use, has been well document, and measured. The only area for improvement, which has already been planned for 2021, is to install auto flushers on the two bleeders, at 918 Main Street and 77 Edgewater Road. These two bleeders are by far the largest volumes of operational water use, and this should decrease significantly after the auto flushers are installed.

7.5 Other Recommendations to Improve Data Quality

The AWWA software interactive data grading shows the areas for improvement in data quality, many of which have been covered in the recommendation above. Other areas for data quality improvement, highlighted by the software are:

Average Length of Customer Service

Take a sample of the location of the customer service lines and meter location, and extrapolate for the whole system, to arrive a more accurate length.

Length of mains

Complete additions and subtractions to the mains inventory at least annually.

Average Operating Pressure

Install temporary pressure data loggers in the distribution system, to obtain 7 day pressure profiles

7.6 Future Water Audits

It is recommended that the Town continue to complete the AWWA water audit annually, as they have been for the years prior to this audit. The water audit process introduced to Town staff during this project, will improve the quality of the audit, as it is completed by staff in future years. The data gathering spreadsheet included with this report, will be very beneficial, as it can be used to update data in future years.



It is further recommended that the new version 6.0 of the AWWA software be used, as it has been improved considerably, when compared to earlier versions.

7.7 Additional Recommendation

It is understood that consideration is being given to replacing the existing 8 inch cast iron watermain from the WTP, and also moving the pressure reductio valve (PRV) down the hill to the junction with main street. In order to facilitate the decision to move the PRV, the following is recommended:

<u>Install four temporary pressure data loggers, as follows</u>

- Inlet to existing PRV
- Outlet to existing PRV
- Lowest pressure location in the distribution system top of Long Hill Road
- Highest pressure location in the distribution system Main Street, probably near bleeder at 918

Install the pressure loggers for at least 7 days, or longer, and this will help to understand how the existing PRV is operating, and show the diurnal pressure profile at the inlet and outlet of the PRV. In addition, the diurnal pressure profiles at the lowest and highest pressure locations, will enable hydraulic gradients to be gathered, at a range of operating flows, from the lowest, with least friction loss, to the highest, with friction loss high.

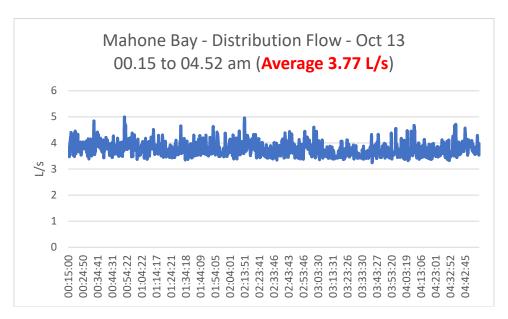


<u>Part Two – "Bottom Up" Night Flow Analysis, Night Step Testing and Leak</u> <u>Detection</u>

8.0 Measured Night Flow

During the water audit, SCADA data of the distribution flows was analysed for the 7 day period March 23 to 29, 2021, as described in section 7.2 of this report. The average measured night flow between 1.00 and 4.00 am, over this 7 days was 4.28 l/s. When compared to what would be "expected" at night, which is referred to as Legitimate Night Flow, or Background Leakage, estimated at 1.03 l/s, it indicated that night flow was high, and that there was leakage in the water distribution system.

In order to obtain a more recent picture of the distribution flows, before the night step testing, SCADA data was analysed for October 12 to 13, 2021. The following graph shows that although the average flow had reduced to 3.77 l/s, this was still high.





9.0 Design of Night Step Testing

Step testing involves closing smaller sections of the water distribution system, at night, typically between midnight and 5.00 am, and these isolations are brief, for 2 to 3 minutes. Operations staff were familiar with the condition of the valves on the water distribution system, through their normal operations activities, and the unidirectional flushing program, which is completed in the Spring and Fall every year. They were therefore able to provide details of the valves they had confidence in, and those that should be avoided.

Before smaller sections of the water distribution system were isolated, a step was designed to divided the Town into two large sections, and provide a higher level view first - this was step A. Then smaller steps 1 to 9 were designed, which covered all the Town, except for a short section of 8 inch cast iron watermain from the treatment plant, along Main Street to Clearway Street.

A copy of the steps is included as Appendix D, which also shows the valves to be operated, that were numbered from V1 to V15

A valving log was next developed, which detailed the valves to be operated in each step, so that each valve closing and opening was recorded. This ensures that the steps are completed in a controlled manner, and that no valves are left shut at the end if the night. In order to minimize the number of valve operation, some valves were left shut in a step, which were needed to be closed in subsequent steps. This ensured that the steps could be completed efficiently, in an organized manner.

During the night step testing, a large drop in flow was found in step 6, so later in the night, two additional small steps, 6a and 6b, were performed, in an effort to further identify the area of potential leakage.

The step log is included as Appendix E, with the record of the times of the valve operation on October 12 and 13, 2021 shown.

10.0 Results of Night Step Testing

The procedure for step testing was that before the step, the average flow was observed at the distribution flowmeter at the water plant, and when the last valve was closed at the step, and drop is flow noted. After the step, the valve was only opened a quarter of a turn, and listened to see if there was any noise. At the same moment, and increase in flow was noted at the distribution flowmeter, to see if there was any large, or "charge up" flow.

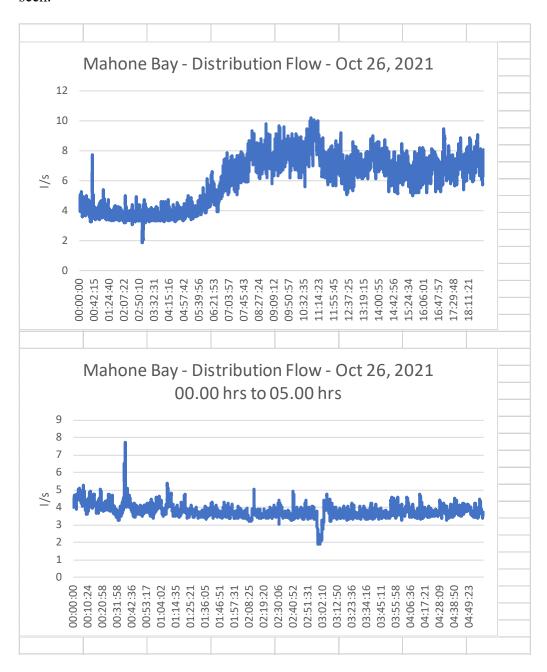
The Mahone Bay SCADA system records data every second, so after the night step testing, this data was analysed, and compared to the manual reading taken at the water plant. The spreadsheet showing this comparison is included as Appendix F, where is can be seen that the manual readings and SCADA data match very closely. For step 6, because of the large drop in flow, and loud noise when the valve was opened a quarter of a turn, the valve was left in that position for several minutes, and then only opened another eight of a turn. This was done to avoid any surge in pressure in the watermain, that could have caused additional leakage. The time to fully charge up the main was 7 minutes.

A summary of the drop in flows at the steps is shown below. Generally the measured distribution flow before each step was in the 3.6 to 3.8 l/s range. It can be observed that as well as the large drop flow of 1.4 l/s in step 6, there could be other potential leakage at steps 1 and 4. Based on the step testing results, the Town arranged for Graham MacDonald of GMAC Water Limited, to complete acoustic leak detection in step 6, and this was completed the night of November 4 to 5, 2021.

Mahone Bay Steps - Tuesday October 26, 2021						
<u>Step</u>	<u>Time</u>	Step Flow (L/s)				
Α	0.33 to 0.36 am	0				
1	1.04 to 1.07 am	0.4				
2	1.25 to 1.28 am	0				
3	1.48 to 1.51 am	0				
4	2.07 to 2.10 am	0.2				
5	2.38 to 2.41 am	0.1				
6	2.58 to 3.01 am	1.4				
7	3.19 to 3.22 am	0.1				
8	3.29 to 3.32 am	0				
9	3.44 to 3.47 am	0.1				
6a	4.11 to 4.14 am	0				
6 b	4.22 to 4.25 am	0				

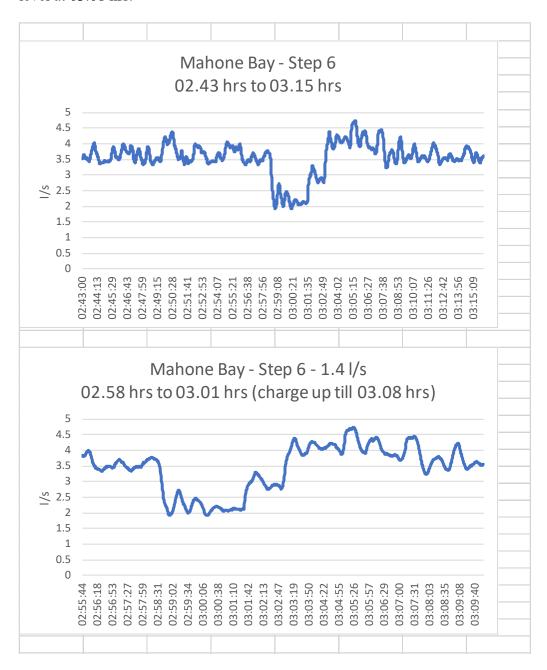


A number of graphs of the distribution flow on October 26, 2021 were next prepared. The top graph shows the 18 hour period from midnight on October 25, to 18.11 hrs on October 26. The bottom graph the step period between 00.00 hrs and 05.00 hrs. The charge up after step A can be seen 00.36 hrs, and the large drop in flow at step 6 at 02.58 hrs can be seen.





The following two graphs show step 6. The top graph shows the period before the step, and the period to fully charge up the system. The bottom graph shows the step in more detail, with the start of the step at 02.58 hrs, opening the valve a quarter of a turn at 03.01 hrs, opening another eight of a turn at 03.04 hrs, and finally returning the flow to pre step level at 03.08 hrs.



11.0 Leak Detection In Steps with Potential Leakage

Three potential leaks were identified by Graham Macdonald of GMAC Water Limited, during the night of November 4 to 5, 2021, as follows:

Significant service leak at Northern Sun, Gallery and Gifts, Edgewater Street

The leak is likely located between the curb stop and the Northern Sun building. The curb stop was not closed to confirm if the leak was on the customer side service, or the Town side. This was because the curb stop was in poor condition, and may have failed during operation. The Town must decide if the best course of action is to have the service repaired, or have the service replaced because of its location at the busy road junction in Town.

Regardless, the section of watermain where the leak is located needs to be established, by closing the curb stop, and the Town should be prepared to replace the curb stop if needed. Once closed, if the service is to be repaired, Graham Macdonald should be requested to return, and perform correlation to pinpoint the location of the leak.

Service leak at 210 Main Street

Further investigation is required, including access to the basement of the property to see if there is noise on the service, and the service could be shut off to determine which side of the curb stop the leak is

Main Street near Clearwater Street

A small leak noise was heard on Main Street, just south of Clearway Street, and the correlation location showed what appeared to be and old excavation, which is believed to be an old leak repair. However, there is a sewer within the area, with considerable flow, so the noise could be from a leak or sewer flow. Further investigation is required, of an exploratory excavation performed.

12.0 Measured Night Flow Targets, and Ongoing Maintenance

As each leak is found and repaired, the flowmeter to the water distribution system, at the water treatment plant, should be used to check the reduction in flow. This procedure should be repeated till the measured night flow reaches the desired target. A summary of the procedure is as follows:

- 1. Record the night flow to the water distribution system between 1.00 am and 4.00 am
- 2. Complete night time step testing, to identify the areas of potential leakage
- 3. Sound the step with potential leaks, and correlate / ground microphone to "pinpoint" the leak, and put a cross on the ground for repair
- 4. Repair the leak
- 5. Check the night flow, and if not reached the target, repeat steps 1 to 4



When the target is met, this is when the leak detection can stop, and is often referred to as the "Exit" level of measured night flow. As the night flow increased, a flow can be set, where leak detection activities begin again, often referred to as the "Entry" level, at which time activities 1 to 4 detailed above commence again.

The current night flows to the water distribution system are in the range of 3.6 to 4.0 l/s. With the potential leakage found during the step testing, and the leak on main street near the water plant, which was not included in the steps, there could be a total of about 2.0 l/s of leakage identified. However, this leakage has still to be found and repaired, and the amount of reduction in night flow confirmed.

The theoretical calculation of Legitimate Night Flow which was calculated as 1.03 l/s. It would therefore seem reasonable and prudent to set progressive targets for night flow, staring with a target of 2.5 l/s, then when achieved, moving to a new target of 2.0 l/s, with the final goal of getting to 1.5 l/s or less.

The following table provides a summary of the benefits to the Town, for these targets. These benefits include reduced volumes of leakage, reduced cost of electricity, and reduced CO2 emissions:

Real Losses - Target Reductions							
	Measured Night Flow		Reduction	1	Variable Cost Saving	Environme	ntal Savings
					Power and Chemicals		
	<u>l/s</u>	<u>l/s</u>	m3/day	m3/year	\$ per Year	kg of CO2 per Year	Tonne of CO2 per Year
Current	3.8						
Initial Target	2.5	1.3	112	40,997	\$19,555	12,791	12.8
Second Target	2.0	1.8	156	56,765	\$27,077	17,711	17.7
Final Target	1.5	2.3	199	72,533	\$34,598	22,630	22.6

In terms of the reductions in Non-Revenue Water, and reductions in CO2 emissions, the following tables provides a summary, in relation to these three targets:

Reductions in Total Volumes of Water Supplied in 2020

Reductions - Water Supplied Volumes						
		Reduced Volume				
	m3/year	m3/year	% Reduction			
Total Volume of Water Supplied in 2020	197,674					
Real Losses Reduction - Initial Target	40,997	156,677	21%			
Real Losses Reduction - Second Target	56,765	140,909	29%			
Real Losses Reduction - Final Target	72,533	125,141	37%			

The target from Mahone Bay's Greenhouse Gas (GHG) Reduction Action Plan for reduction in water supplied volumes was a 1% reduction per year by 2050 (Action #13).



Meeting the targets of real loss reduction will achieve between 21% to 37% of water supplied volumes - well in advance of the Action Plan targets.

Reductions in Non-Revenue Water (Real Losses) – Based on the Three Target Night Flows

Reductions - Non-Revenue Water (Real Loses)							
		Reduced Volume					
	m3/year	m3/year	% Real Losses				
Total Volume of Real Losses		101,200					
Real Losses Reduction - Initial Target	40,997	60,203	41%				
Real Losses Reduction - Second Target	56,765	44,435	56%				
Real Losses Reduction - Final Target	72,533	28,667	72%				

Reduction in Greenhouse Gas (GHG) – Based on the Three Target Night Flows

Reductions - Greenhouse Gas (GHG)							
		Reduced Tonnes					
	tonne/year	tonne/year	% Reduction				
Total Volume of Water Supplied		61.7					
Real Losses Reduction - Initial Target	12.8	48.9	21%				
Real Losses Reduction - Second Target	17.7	44.0	29%				
Real Losses Reduction - Final Target	22.6	39.1	37%				



Part Three - Summary of Recommendations

The table below provides a summary of the recommendations from Parts One and Two of this report. The table is included in the Appendix B, Data Gathering Spreadsheet, at the last tab, for ongoing use and updating by Town staff.

Summary of Recommendations					
Report Section	Recommendation				
<u>Part</u>	t One - "Top Down" Water Audit_				
7.1 Water Supplied Volumes	Continue daily comparisons of Raw and Treated Water volumes				
	Complete electronic or insitu testing of flowmeters				
7.2 Real Losses - Leakage	Monitor measured treated water night flow				
	Start step testing and leak detection when night flow high				
7.3 Apparent Losses - Customer Meters	Complete customer meter accuracy testing				
	Cost benefit of a customer meter radio reading system				
7.4 Unbilled Authorised Consumption	Install auto flushers at 918 Main Street and 77 Edgewater Road				
7.5 Improve Data Quality	Improve accuracy of average length of customer services, length of				
	watermains, average operating pressure				
7.6 Future Water Audits	Town staff continue water audits annually, using the new AWWA				
	software, version 6.0				
7.7 Additional Recommendation	Before decide location of Pressure Reduction Valve (PRV), install				
	7 day pressure data loggers on the distribution system				
Part Two - "B	ottom Up" Night Flow and Leak Detection				
11.0 Leak Detection in Step Areas	Significant service leak at Northern Sun Building				
(locate leaks and repair)	Service leak at 210 Main Street				
	Potential leak a Main Street, near Clearwater Street				
12.0 Measured Night Flow Targets	Locate and repair potential leaks found in step testing				
	Once repaired confirm measured night flow				
	Repeat step 6, and if flows still high, complete leak detection				
	Complete leak detection in steps 1 and 4, which had potential leaks				
	Set targets to maintain leakage at lower levels				

Final NRW Report prepared by: Kingsley Blease, P.Eng., C.Eng. November 19, 2021

APPENDICES

Town of Mahone Bay Data Gathering Questionnaire

Version 1 – August 11, 2021 Version 2 – August 16, 2021 Version 3 – September 6, 2021 Version 4 – November 4, 2021

Data required for full year – Full year 2020

MAPS OF WATER DISTRIBUTION SYSTEMS

Map has been provided – January, 2008 – updated Feb, 2011with Long Hill Road new 8 inch PVC main

- Is there an updated map?
- Are there any other records showing valves and hydrants?

The ESRI system has details of valves, hydrants, km mains etc, - It can produce an Excel export, and Catherine (GIS person) will be asked to provide. Also include details of customer meters

GIS exports re: mains, valves, hydrants attributes in excel spreadsheet. ~14km main; 58 active hydrants; comments from MR in green. Looking at the GIS map of water infrastructure I was able to infer that WV is a water service connection and GV is any main valve (including hydrant secondaries). When looking through attributes on the GIS map, valves I know exist are not captured; in my opinion the total numbers for GV and WV are not an accurate account of totals and locations may be off. I will need to use the existing .pdf as the background template to add additional features (hydrants, valves) for your reference.

OPERATIONS DEPT.

Meghan will provide historical water supplied / customer billed volumes for the last few years

- A. Water Supplied Volumes
- Period for full year
- Period will be defined by the customer billed data

Flowmeter that records flow to Town - annual calibration certificate, if available – Calibration not performed, although a clamp on ultrasonic flowmeter was used to check ?? meter

Also provide any maintenance or flowmeter replacement history

There is a flowmeter on the outlet main (to distribution) of the clear well Is there a flowmeter on the raw water main from Oakland Lake?

Yes, there is a flowmeter at the pumping station at Oakland Lake on the raw water main, and another on the raw water main at the inlet to the water plant. After treatment, water is pumped upto the clear well, and a flowmeter is located on the outlet of the clear well. All three meters (2 raw, 1 treated) are Magnetic Inductive (Mag) meters

Are there any other flowmeters – in water plant?

B. Non-Revenue Water – Unbilled Authorised

All Unbilled Authorised Volumes Provided by Meghan

1. Flushing of mains and sewers (indicate if data is metered or estimated). Make best estimates of average flow rates and duration, if not metered

There is a seasonal flush (spring and fall) of the whole distribution system, by the unidirectional flushing method – completed overnight. This involves the operation of many valves. Meghan, knows which valves not to use

Meghan records the distribution flowmeter reading before and after each flushing even, and will provide volume details for 2020

There is also flushing, as needed – details to be provided

	MAINS	SEWERS
Avg. # flushed / year		
Avg. flow time		
Avg. flow rate		

- 2. Water Taken From Hydrants Fire Flow Tests (indicate how data is tracked)

 Yes Meghan will provide details
 - a. What is the average number of flow tests per year?
 - b. What is the average duration of these tests?
 - c. How many areas are tested / year?
 - d. What is the average pressure in the tested areas?
 - e. What is the average main diameter, material and age?
 - 3. Water Main Repairs & Subsequent Flushing
- 2 repairs in 2020 Meghan to provide
 - a. What is the average number of water main repairs done per year?
 - b. What is the average diameter of the main?

- c. How long are the mains flushed during and after the repairs?
- d. Are the flushed water mains metered; if so, what is the average volume of water used per repair?
- 4. Cleaning of Storage Tanks indicate how data is tracked?

The clear well has one compartment, and was cleaned in November, 2020, while still in operation. Meghan will provide estimated volume of water to waste

	STORAGE TANKS
Avg. # cleaned / year	
Avg. size	
Avg. time to clean	

5. Filling of Water Tankers

No bulk filling stations

- a. For metered stations, what is the annual volume of water used?
- b. For un-metered stations, what is the estimated number of fills per year and average tanker size?
- c. Are customers billed on a flat rate or by volume?
- 6. Water Used For Street Cleaning (indicate how data is tracked)

None

	WATER USED FOR
	STREET CLEANING
# of Trucks	
Avg. Volume of Water / Fill	
Avg. # of Truck Fills / Day	
Avg. # of Operation Days / Year	

7. Frost Protection (if applicable – likely not)

None

- a. What is the average duration of use?
- b. What is the average pipe size and material?

8. Building Water For Metered & Un-metered Sites

None

- a. What is the annual volume of water used for metered building sites?
- b. For un-metered building sites, are customers billed on a flat rate or by volume?
- c. Please fill in the following chart with the appropriate information for unmetered building sites best estimate:

	UN-METERED SITES
Avg. # of Sites / Year	
Avg. # of Connections / Site	
Avg. Size of Supply / Site	
Estimated Avg. Flow / Site	
Estimated Duration / Site	

9. Blow Offs or Bleeders

There are currently two 3/4 inch blow off, operating continuously. They will be replaced in the Fall with two Auto Flushers

- a. What is the total number of blow offs / year?
- b. How many blow offs are permanently running, how many are seasonal, and how many are on a timer?
- c. How many of the blow offs are metered?
- d. What is the average pipe diameter?
- e. What is the estimated flow rate and duration time for the blow offs?
- 10. Unavoidable Annual Real Losses (UARL)

From the hydrant data, Meghan will provide the static pressure ranges (daytime) - **Provided**

- a. What is the average water pressure during the day and at night?
- b. Provide an estimate on the percentage of leaks reported by customers.
- 11. Potential For Water Loss Reduction See table

	MAIN LEAKS	SERVICE LEAKS
Avg. # of Leaks / Year	2	3
Avg. Size of Leak		
Avg. Duration of Leak		

12. Financial Data – Water Supplied

To Be Provided

To be provided. Include the raw water system, water treatment plant (treatment and pumping)

There are no booster pumps, as distribution is a gravity system

- a. What is the annual variable cost of water supplied for the full year. Variable cost is power and chemicals
- **b.** Include the high lift pumps at the water treatment plant, and also any booster pumps in the water distribution system

BILLING DEPARTMENT

A. Revenue Water – Billed Authorised – Water Billing Data

Customer meters are read every two months (takes 2 days for each) – half the Town one month, and half the next. Billing is every two months

For the 2020 billed volumes, Meghan to provide the year total billed volumes, plus the billed volumes for Nov, Dec 2019 and Jan, Feb 2021 – for inspection. The date the meters were read in 2019 and 2021 months to be included

For all Customer Accounts

Show any segregation, if by residential, multi-residential or commercial, for example

- Metered volumes for the full year
- What are the customer water and wastewater rates for the selected 12 month period (include fixed charges, water rate per m3, wastewater charge, and any other associated charges)? **Provided**
- Are there any billed un-metered accounts? If so, how many are there, and provide details? 100% metering

B. Customer Meters

To check that meters record in Imperial Gallons (not US)

488 services. Meter registers are metric and gallons. Meters are Neptune, and touch pad, plus ???reading system

ESRI system to export in Excel details - List the manufacturer / size / type, ***age (number installed by year).

- Provide any customer meter accuracy testing information that is available
 No meter accuracy testing completed
- Provide any details on maintenance and replacement programs for customer meters.
- Details of meter reading system (direct read, generator remote, touch pad, walk by radio read, drive by radio read, fixed network radio read)

Electrical smart meters are being progressed, so including the water meters will be considered

C. Non Revenue Water – Apparent Losses

- 1. Theft
 - a. Provide annual water loss estimates for the types of theft listed below.

	ESTIMATED
THEFT TYPE	ANNUAL VOLUME
	LOST
Theft From Hydrants	
Not Opening An Account	
Tampering With Meters	
Use of False Names	
Illegal Connections	

FIRE DEPARTMENT

Non-revenue Water – Unbilled Authorised

The Fire Dept. fills up from a 2 inch line at the station. It is understood that they are billed by the Town, so effectively is Non-Revenue Water. Meghan – please check this meter reading is included in the customer billed volumes, and not billed separately – ***Please check that in customer billed volume, as it is metered ***

Estimates of the volumes of water for filling pumper trucks, vac trucks, sweepers and construction totes were added

1. What is the average number of fires per year (actual or estimated). Actual fires, not calls

The Fire Dept will be asked about any filling from hydrants, and if they complete any fire flow tests

- 2. What is average duration of a fire?
- 3. What is the average number of water hydrants / ports used per fire?
- 4. Does the Fire Department do any hydrant flow tests? If so, what is the average annual number and duration of these tests?
- 5. Any hydrant water use for training?

ENGINEERING / INFRASTRUCTURE DEPARTMENT

Water Distribution System Infrastructure

Provide details of:

1. Water Mains (list by diameter, length, material, age if available)

Need km of mains

- a. What are the materials of the main?
- b. What is the average age and diameter for the water main?
- c. What is the total length of the water main?
- 2. Service Mains

Same as number of customer meters? - ***please confirm***

- a. What is the total number of active & inactive services?
- b. What is the average age?
- c. List the service materials.
- d. What is the average length of the service to the curb-stop?
- e. What is the average length of the service from the curb-stop to the house?

PARKS DEPARTMENT

Non-Revenue Water - Unbilled Authorised

None

- 1. Parks Irrigation
 - a. For metered parks, what is the total volume of water used per year?
 - b. For un-metered parks:
 - What is the total number of irrigation zones?
 - What is the number and type of sprinkler heads per zone?
 - Average pressure / head?
 - Average time that a sprinkler is used per day?
 - Average number of days / year that a sprinkler is used?
 - Are rain shut offs installed?

3. Public Fountains

- a. For metered fountains, what is the average volume of water used / year?
- b. For un-metered fountains:
 - How many are there?
 - What's the average size?
 - Is the water re-circulated?
 - How many days of the year is the fountain operated?

NIGHT FLOW ANALYSIS DATA REQUIREMENTS

Water Supplied Data

- Distribution pump delivery volumes Provide at same interval as recorded, 1 minute, 5minutes, other? (SCADA?), and in Excel format if available
- Provide for 7 days in March or April, 2020 to be decided

Water Distribution System Data

- Length of watermain 14 km
- Number of customer services 488
- Number of hydrants 58
- Average system night pressure
- Average people per household

Customer Night Water Use Data

• Identify customers using water overnight, particularly between 1.00 am and 4.00 am

Other Night Water Use

- Blow offs / bleeders
- Other

Town of Mahone Bay 2020 Data

	January 1 to December 31,					
Item	Water Balance Item	Volume (m3 per year)	Units			
1	Volume from Own Sources	197,674	m3			
2	Source Meter inaccuracies		m3			
3	Water Imported	0	m3			
4	Water Exported	0	m3			
5	Billed Metered	86,831	m3			
6	Billed Unmetered	0	m3			
7	Unbilled Metered	0	m3			
8	Unbilled Unmetered	6,455	m3			
9	Unauthorized Consumption	217	m3			
10	Customer Meter Inaccuracies	2,692	m3			
11	Data Handling Errors	217	m3			
12	Length of Mains	14	km			
13	Number of Services	490	no			
14	Av Length of Customer Service Line	24.3	m			
15	Av Operating Pressure	57.0	m			
16	Total Annual Cost of Operating		\$ / Yr			
17	Customer Water Rates	\$3.16	\$/m3			
18	Variable Water Production Cost	\$476.61	\$/ML			
	<u>Key</u>					
	Data Outstanding					
	Data Complete					

2020						
Comments						
Unknown						
Use AWWA default of 0.25%						
Estimate based on age is 3.1% under-registration	Note - A'	WWA sof	tware calculates a	s 2,778 -	not 2,692	
Use AWWA default of 0.25%						
80 ft average						
81 psi						
Not required for AWWA software version 6.0						

	Reservoir Outflow (litres)	
January	16,838,000	
February	15,148,000	
March	16,634,000	
April	15,855,000	
May	17,197,000	
June	16,453,000	
July	17,364,000	
August	18,990,000	
September	17,111,000	
October	16,247,000	
November	14,675,000	
December	15,162,000	
Total 2020	197,674,000	Litres
	197,674	m3

Petails - Raw Water Pump Hous	e	
ABB Magmaster		
3	inch	
3	inch	
22.5	inch	
7.5	diameters	
3	inch	
12	inch	
4	diameters	
Details - WTP - Treated Water		
<u>Rosemount</u>		
8	inch	
8	inch	
54.2	inch	
6.8	diameters	
8	inch	
23	inch	
2.9	diameters	
	ABB Magmaster 3 3 22.5 7.5 3 12 4 Details - WTP - Treated Water Rosemount 8 54.2 6.8 8 23	3 inch 22.5 inch 7.5 diameters 3 inch 12 inch 4 diameters Details - WTP - Treated Water Rosemount 8 inch 54.2 inch 6.8 diameters 8 inch 23 inch

Flowmeter D	etails - WTP - Inlet to Floc Tank		
<u>Make</u>	ABB Magmaster		
Line Diameter	3	inch	
Inlet pipework dia	3	inch	
Straight pipe length	14	inch	
Straight pipe length	4.7	diameters	
Outlet pipework dia	3	inch	
Straight pipe length	12	inch	
Straight pipe length	4	diameters	

Raw Water Pump House	
Raw Water Pump House Flowmeter	
nlet to ABB Magmaster flowmeter is 3 inch Stainless Steel	
Outlet to ABB Magmaster flowmeter is 3 inch Stainless Steel	
Vertical outlet pipe from ABB Magmaster connects to 8 inch Cast Iron	
Water Treatment Plant	
Treated Water Flowmeter	
Date of manufacture is March, 2008 - Rosemount	
nlet to Rosemount flowmeter is 8 inch Stainless Stell (Cast Iron coming up from floor)	
Outlet to Rosemount flowmeter is 8 inch Stainless Stell (Cast Iron going down through floor)	
nlet to Floc Tank Flowmeter	
Date of manufacture is 2005 - ABB Magmaster	
nlet to ABB Magmaster flowmeter is 3 inch Stainless Steel (Cast Iron coming up from floor)	
Outlet to ABB Magmaster flowmeter is 3 inch Stainless Steel	
- 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	

Billed Volumes	Billed Volumes					
	<u>Gallons</u>	<u>m3</u>		<u>m3</u>		
Commercial	9,234,533	41,981		1		
Residential	9,865,552	44,850				
Total	19,100,085	86,831				
Description	January	February	March	April		
5/8" Imperial Bi-monthly Com.	21,203		35,200			
1" Imperial Bi-monthly Com.						
1 1/2" Imperial Bi-monthly Com.						
5/8" Imperial Monthly Com.	19,300	24,640	22,810	25,360		
3/4" Imperial Monthly Com.	2,020	1,460	1,330	1,570		
1 1/2" Imperial Monthly Com.	107,000	111,700	99,700	89,300		
2" Imperial Monthly Com.	120,000	170,000	120,000	150,000		
5/8" Metric Bi-monthly Com.	94,160		108,900			
1" Metric Bi-Monthly Com.		34,540		39,380		
1 1/2" Metric Bi-monthly Com.	41,360	71,940	18,040	65,780		
5/8" Metric Monthly Com.	70,400	72,380	63,360	68,860		
1 1/2" Metric Monthly Com.	38,720	17,600	14,300	25,960		
2" Metric Monthly Com.	45,760	58,740	45,980	44,880		
Special Water Meter 1 1/2" Metric Monthly	122,320	144,760	116,600	168,960		
5/8" Imperial Bi-monthly Res.	281,859	224,667	284,784	202,366		
5/8" Metric Bi-monthly Res.	426,580	572,440	414,480	535,260		
Total Gallons	1,390,682	1,504,867	1,345,484	1,417,676		

gallons							
219.969							
May	June	July	August	September	October	November	December
12,350		9,528	65,490	22,213	57,360	11,699	
,		-,		,	21,222	.,,555	
27,970	33,370	37,740	47,780	60,883	39,107	29,560	22,100
1,760	2,330	2,310	3,660	4,110	2,121	1,989	2,870
117,500	121,400	173,600	127,200	75,500	116,350	105,750	106,200
130,000	140,000	120,000	140,000	120,000	130,000	100,000	150,000
70,620		114,180		215,820		163,900	
	47,520		45,540		48,400		52,140
47,080	80,080	51,040	68,640	65,120	70,620	54,560	103,400
73,040	92,180	85,800	132,660	125,180	112,200	108,680	77,440
13,860	36,520	21,120	36,080	20,900	25,520	17,380	27,720
49,720	54,560	52,580	58,740	55,000	55,440	71,500	55,220
165,440	134,200	163,680	174,240	151,140	190,740	159,940	149,380
274,043	234,768	327,985	242,706	377,566	228,743	325,785	221,780
401,500	575,300	511,940	654,940	756,800	649,000	540,100	600,160
1,384,883	1,552,228	1,671,503	1,797,676	2,050,232	1,725,601	1,690,843	1,568,410

	Customer meters are read every two months (takes 2 days for each) – half the Town one month, and
	Billing is every two months
	For the 2020 billed volumes, Meghan to provide the year total billed volumes, plus the billed volumes
	The date the meters were read in 2019 and 2021 months to be included
	488 services. Meter registers are metric and gallons. Meters are Neptune, and touch pad,
Totals	
	No meter accuracy testing completed
	Electrical smart meters are being progressed, so including the water meters will be considered
9,234,533	
J,23 1,333	
9,865,552	
19,100,085	

Description
5/8" Imperial Bi-monthly Com.
1" Imperial Bi-monthly Com.
1 1/2" Imperial Bi-monthly Com.
5/8" Imperial Monthly Com.
3/4" Imperial Monthly Com.
1 1/2" Imperial Monthly Com.
2" Imperial Monthly Com.
5/8" Metric Bi-monthly Com.
1" Metric Bi-Monthly Com.
1 1/2" Metric Bi-monthly Com.
5/8" Metric Monthly Com.
1 1/2" Metric Monthly Com.
2" Metric Monthly Com.
Special Water Meter 1 1/2" Metric Monthly
5/8" Imperial Bi-monthly Res.
5/8" Metric Bi-monthly Res.

Description	Volume (m3)
Seasonal flushing - Spring (unidirectional)	360.6
Seasonal flushing - Fall (unidirectional)	403.8
Flushing as needed	504.0
Fire flow tests	0.0
Watermain repairs and subsequent flushing	349.0
Clear well cleaning, in November, 2020	302.0
<i>5,</i>	
Blow offs - 2 operating continuously	4,300.0
Fire Department 2 inch fill line	0.0
Fire Deparment - fills from hydrants?	0.0
Fire Department - pumper trucks, vac trucks, sweepers, construction totes	236.0
Total	6,455

Unbilled Authorised Consumption	
Description	Volume (m3)
Seasonal flushing - Spring (unidirectional)	360.6
Seasonal flushing - Fall (unidirectional)	403.8
Flushing as needed	504.0
Fire flow tests	0.0
Watermain repairs and subsequent flushing	349.0
Clear well cleaning, in November, 2020	302.0
Bleeders - 2 operating continuously	4,300.0
Fire Department 2 inch fill line	0.0
Fire Deparment - no fills from hydrants	0.0
Fire Department - pumper trucks, vac trucks, sweepers, construction totes	
Total	6,219

		Custo	omer Water Meter	's
<u>Fr</u>	rom Meghan September 10, 2021	Years Installed	Number of	Age - Years
1999	193		Meters	
2000	6			
2001	3			
2002	6	1999	193	22
2003	9	2000 to 2004	27	17 to 21
2004	3	2005 to 2009	77	12 to 16
2005	3	2010 to 2014	94	7 to 11
2006	3	2015 to 2021	102	1 to 6
2007	22	No service date	2	
2008	18	Tota	al 495	
2009	31			
2010	21			
2011	15			
2012	29			
2013	11			
2014	18			
2015	16			
2016	14			
2017	16			
2018	24			
2019	22			
2020 2021	7 3			
2021	493 2 meters without service dates			
manufacturer:	: Neptune			

Accura	су
<u>Percentage</u>	<u>Weighted</u>
<u>Under-Registration</u>	<u>Average</u>
<u>Estimate</u>	
5.0%	9.65
5.0%	1.35
3.0%	2.31
1.5%	1.41
0.5%	0.51
1.5%	0.03
total	15.26
Weighted Averaged	3.08%
<u> </u>	L

Number of services	481		<u>From</u>	Meghan Septer	nber 10 2021	
Abandoned services	3	Total # meters	495			
Bleeders and blow offs	6	special	1			
Number of Services	490	Imp.Comm.	23			
		Met.Comm.	55			
		Imp.Res.	115			
		Met.Res.	301			
		Total # Services:	481	plus	Bleeder 918 Main St.	1"
				unmetered	blowoff 15 Main St.	3/4"
				services	blowoff 57 School St.	3/4"
					Bleeder 77 Edgewater St.	3/4"
					195 Main St.	3/4"
					~91 Orchard St.	3/4"

Length fro	m curb sto	p to prope	erty is on a	verage be	etween
	80	ft			
Length	24.3	m			

Provided from hydra	nt data - static	pressure (daytime)			From Meghan September 6, 2	021
					Town of Mahone Bay	
			psi	m	Hydrant Maintenace Record	k
					Location	Static
			1	0.70325		Pressure (psi)
					117 Long Hill Road	32
Static Pressure	81	psi			73 Long Hill Road	50
	57.0	m			40 Long Hill Road	64
					95 Clearway Street	73
					110 Clearway Street	72
					155 Clearway Street	72
					20 Garden Lane	68
					Welcome Street @ Clearway Street	73
					34 Shady Lane	64
					9 Cherry Lane	84
					15 Cherry Lane	81
					33 Cherry Lane	84
					88 Orchard Street	82
					Orchard Street @ Parish Street	91
					Parish Street @ Edgewater Street	98
					77 Edgewater Street	97
					43 Clairmont Street	94
					63 Clairmont Street	91
					84 Clairmont Street	87
					136 Kinburn Street	82
					106 Kinburn Street	83
					77 Kinburn Street	84
					39 Kinburn Street	74
					147 Main Street	40 55
					201 Main Street	
					255 Main Street	67
					299 Main Street	74
					358 Main Street	86
					436 Main Street	92

	482 Main Street	
	558 Main Street	
	610 Main Street	94
	690 Main Street	95
	720 Main Street	97
	794 Main Street	97
	836 Main Street	98
	882 Main Street	98
	922 Main Street	96
	Fairmont Street @ Main Street	97
	105 Fairmont Street	77
	132 Fairmont Street	69
	162 Fairmont Street	68
	23 Pleasant Street	95
	65 Pleasant Street	86
	78 Pleasant Street	87
	111 Pleasant Street	87
	Fauxbrg Road @ Pleasant Street	74
	36 Fauxburg Road	92
	146 Pine Grove Street	
	109 Spruce Street	76
	110 Maple Street	82
	71 Maple Street	82
	16 School Street	84
	45 School Street	82
	36 Pond Street	92
	20 Hedge Row	94
	Total Hydrants: 55 (+2 private)	
	Total	4,293
	No of Records	53
	Average	81

Cu	stomer Water Rates				
Period	Water	Only			
	<u>1,000 gallons</u>	<u>m3</u>		gallons	<u>m3</u>
January to March	\$15.26	\$3.36		1,000	4.546
April to December	\$14.08	\$3.10			
Average	\$14.38	\$3.16			
Wastewater Rates Included i	n Tax Rate				

<u>2020 Va</u>	ariable Cost		
9	<u>Cost</u>		
Electricity - Raw Water Pumphouse	\$17,872.87		
Electricity - Water Treatment Plant	\$27,429.17		
Chemicals	\$48,910.89		
Total Cost	\$94,212.93		
Volume Supplied	197,674	m3	
	197.674	ML	
Cost Per m3	\$0.477		
Cost Per ML	\$476.61		

2020	Total Water Withdrawal Volume per Month (L)	Averaged Daily Water Withdrawal Rate (L/day)	Peak Averaged Maximum Water Withdrawal Rate (L/day)	Total Water Withdrawal Volume per Year (L)
January	18,026,000	408,000	629,667	211,230,000
February	16,079,000	535,967	616,000	
March	17,725,000	590,833	634,667	
April	16,807,000	560,233	584,333	
May	18,420,000	614,000	672,667	
June	17,296,000	576,533	646,667	
July	18,314,000	516,467	673,000	
August	19,834,000	661,133	699,333	
September	18,348,000	611,600	684,667	
October	17,517,000	583,900	648,667	
November	16,439,000	547,967	582,000	
December	16,425,000	547,500	579,000	

Table 1: 2020 Water Withdrawal Volumes.

211,230,000

Supplied	197,674	m3
Raw Withdrawn	211,230	m3
Raw minus Supplied	13,556	m3
percentage difference	6.4%	

Non-Revenue V	Vater Compo	nents Sumn	nary	
	Volume	Value	Variable	Customer
			Cost	Water Rates
	ML/Year	\$/Year	<u>\$/m3</u>	<u>\$/m3</u>
Real Losses	101.2	\$48,221	\$0.477	
Apparent Losses	3.2	\$10,150		\$3.160
Unbilled Authorised Consumption	6.5	\$3,077	\$0.477	
Non-Revenue Water Totals	110.9	\$61,448		

Percentage of Non-Revenue Water				
Volume of Water Supplied	197.7	ML		
Volume of Non-Revenue Water	110.9	ML		
Percentage of Non-Revenue Water	56.1%			

Environmental Impacts of Water Production - Full Year 2020					
Raw Water Pumping, Water Treatment and Pumping to Clear Wells					
Volume of Water Produced	197,674	m3			
kWh - Raw Water pumping and Water Treatment	329,835	kWh			
kWh per m3	1.669	m3			
kg of CO2 per kWh	0.187	kg			
kg of CO2 per m3	0.312	kg			
TOTAL kg of CO2 for 2020	61,679	kg Per Year			
	62	Tonne /Year			

Environmental Impacts of Non-Revenue Water - Full Year 2020				
Non-Revenue Water (NRW) - Real Losses and Unbilled Authorised Consumption				
Volume of Water - Real Losses	101,200	m3		
Volume of Water - Unbilled Authorised Consumption	6,500	m3		
Total Volume of NRW Water	107,700	m3		
kg of CO2 per m3	0.312	kg		
TOTAL kg of CO2 for NRW for 2020	33,605	kg Per Year		
	34	Tonne /Year		

	Measured Night Flow		Real I Reduction	Losses - Tar
Current	<u>l/s</u> 3.8	<u>l/s</u>	m3/day	m3/year
Initial Target	2.5	1.3	112	40,997
Second Target	2.0	1.8	156	56,765
Final Target	1.5	2.3	199	72,533

et Reductions		
Variable Cost Saving	Environme	ental Savings
Power and Chemicals		
\$ per Year	kg of CO2 per Year	Tonne of CO2 per Year
\$19,555	12,791	12.8
\$27,077	17,711	17.7
\$34,598	22,630	22.6

Variable C	Cost \$0.477	per m3	I/s	m3 /day	m3 / year
kg CO2 per	r m3 0.312	kg	1	86.4	31,536
			2	172.8	63,072
			3	259.2	94,608
			3.2	276.48	100,915

		Real I	Losses - Targ	et Reduction
	Measured Night Flow		Reduction	
	<u>l/s</u>	<u>l/s</u>	m3/day	m3/year
Current	3.8			
Initial Target	2.5	1.3	112	40,997
Second Target	2.0	1.8	156	56,765
Final Target	1.5	2.3	199	72,533

<u>ons</u>	
Variable Cost Saving Power and Chemicals	Environmental Savings
<u>\$</u>	kg of CO2
\$19,555	12,791
\$27,077	17,711
\$34,598	22,630

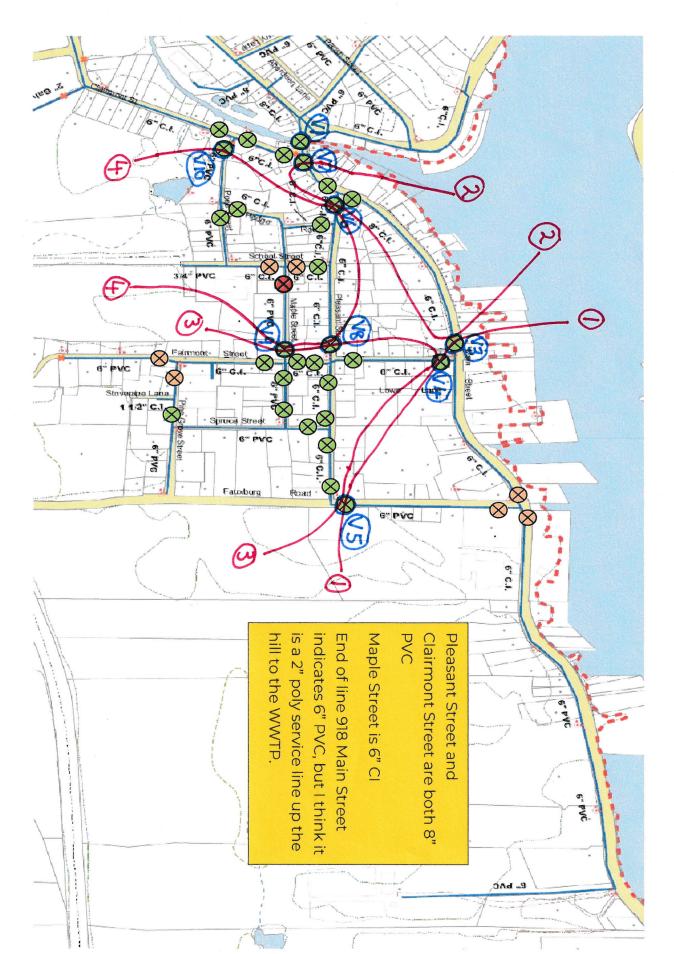
Variable Cost	\$0.477	per m3
kg CO2 per m3	0.312	kg

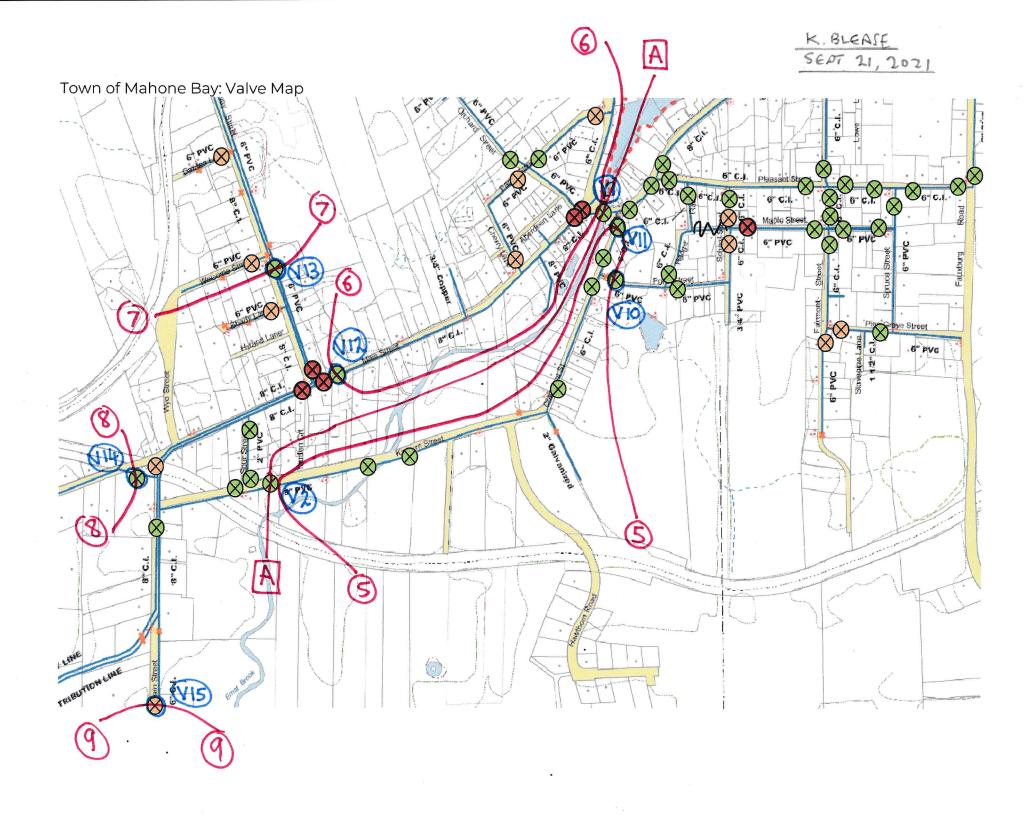
Reductions - Water Supplied Volumes				
		Reduced Volume		
	m3/year	m3/year	% Reduction	
Total Volume of Water Supplied in 2020	197,674			
Real Losses Reduction - Initial Target	40,997	156,677	21%	
Real Losses Reduction - Second Target	56,765	140,909	29%	
Real Losses Reduction - Final Target	72,533	125,141	37%	

Reductions - Non-Revenue Water (Real Loses)				
		Reduced Volume		
	m3/year	m3/year	% Real Losses	
Total Volume of Real Losses		101,200	#DIV/0!	
Real Losses Reduction - Initial Target	40,997	60,203	#DIV/0!	
Real Losses Reduction - Second Target	56,765	44,435	#DIV/0!	
Real Losses Reduction - Final Target	72,533	28,667	#DIV/0!	

Reductions - Greenhouse Gas (GHG)				
		Reduced Tonnes		
tonne/year		tonne/year	% Reduction	
Total Volume of Water Supplied		61.7		
Real Losses Reduction - Initial Target	12.8	48.9	21%	
Real Losses Reduction - Second Target	17.7	44.0	29%	
Real Losses Reduction - Final Target	22.6	39.1	37%	

Summary of Recommendations			
Report Section	Recommendation		
<u>Pa</u>	art One - "Top Down" Water Audit		
7.1 Water Supplied Volumes	Continue daily comparisons of Raw and Treated Water volumes		
	Complete electronic or insitu testing of flowmeters		
7.2 Real Losses - Leakage	Monitor measured treated water night flow		
	Start step testing and leak detection when night flow high		
7.3 Apparent Losses - Customer Meters	Complete customer meter accuracy testing		
	Cost benefit of a customer meter radio reading system		
7.4 Unbilled Authorised Consumption	Install auto flushers at 918 Main Street and 77 Edgewater Road		
7.5 Improve Data Quality	Improve accuracy of average length of customer services, length of		
	watermains, average operating pressure		
7.6 Future Water Audits	Town staff continue water audits annually, using the new AWWA		
	software, version 6.0		
7.7 Additional Recommendation	Before decide location of Pressure Reduction Valve (PRV), install		
	7 day pressure data loggers on the distribution system		
<u> Part Two - '</u>	Bottom Up" Night Flow and Leak Detection		
11.0 Leak Detection in Step Areas	Significant service leak at Northern Sun Building		
(locate leaks and repair)	Service leak at 210 Main Street		
	Potential leak a Main Street, near Clearwater Street		
12.0 Measured Night Flow Targets	Locate and repair potential leaks found in step testing		
	Once repaired confirm measured night flow		
	Repeat step 6, and if flows still high, complete leak detection		
	Complete leak detection in steps 1 and 4, which had potential leaks		
	Set targets to maintain leakage at lower levels		





Da	Date: 26-Oct-21				
- 50		Location	20-000-21		Comment
		Read Customer Meters	Readings		Comment
			Before	After	
		Nursing Home, 640 Main St	4,420	<u> </u>	gallons
		RPS	9,089,000		gallons
		RPS	53,580.3		m3
		Salt Box	6,422.5		m3
		Salt Box - at back	19.4		m3
Valve	Valve		Close	Open	
No	Dia		<u>Time</u>	<u>Time</u>	
	<u>I.</u>	Bleeders			
		918 Main St	0.16		Opened next morning
		77 Edgewater Rd	0.22		Opened next morning
		Step A			
V1	8	Main St at the brook	23.38	0.44	Open
V2	8	Kinburn at Spur St	0.33	0.36	Open
		Step 1			
V3	6	Main St at Fairmont St	0.50		Keep closed (open end step 2)
V4	6	Fairmont St at Main St	0.53		Keep closed (open end step 3)
V5	6	Fauxburg Rd at Pleasant St	1.04	1.07	Open
		Step 2			
V6	6	Pleasant St at Main St	1.14		Keep closed (open end step 4)
V7	6	Main St at Clairmont St	1.25	1.28	Open
V3	6	Main St at Fairmont St		1.35	Open
		Step 3			
V5	6	Fauxburg Rd at Pleasant St	1.48	1.51	Open
V8	6	Pleasant St at Fairmont St	1.38		Keep closed (open end step 4)
V9	6	Maple St at Fairmont St	1.43		Keep closed (open end step 4)
V4	6	Fairmont St at Main St		1.58	Open
	1	Step 4			
V10	6	Pond St at Clairmont St	2.07	2.10	Keep closed (open end step 5)
V6	6	Pleasant St at Main St		2.23	Open
V8	6	Pleasant St at Fairmont St		2.19	Open
V9	6	Maple St at Fairmont St		2.16	Open
		Step 5			
V11	8	Clairmont St at Main St	2.30	2.50	Open
V2	8	Kinburn at Spur St	2.38	2.41	Open
V10	6	Pond St at Clairmont St		2.46	Open

		1 3.18 = 8		, -	
		Step 6			
V1	8	Main St at the brook	2.51	3.14	Open
V12	8	Main St at Clearway St	2.58	3.01	Open
	Step 7				
V13	6	Clearway St at Welcome St	3.19	3.22	Open
Step 8					
V14	8	Little Hill Rd at Main St	3.29	3.32	Open
Step 9					
V15	6	Main St towards Zwicker Ln	3.44	3.47	Open
	Step 6a				
		Orchard St, north from Parish St	4.11	4.14	Open
	Step 6b				
		Parish St from Orchard to Edgewater	4.22	4.25	Open

Step No A (Divide Town Into Two Sections) flows - L/s						
Time	Site Readings		, SCADA			
0.33 to 0.36 am	Open	3.9	Open	3.68		
	Close	3.9	Close	3.70		
	Step	0.0	Step	-0.02		
	Charge Up	7.6	Charge Up	7.70		
		Step No 1 flows - L/				
Time	Site Re	eadings	SCA	ADA		
1.04 to 1.07 am	Open	4.1	Open	4.22		
	Close	3.8	Close	3.83		
	Step	0.3	Step	0.39		
	Charge Up	4.2	Charge Up	5.30		
	5	Step No 2 flows - L/	's			
Time	Site Re	eadings	SCA	ADA		
1.25 to 1.28 am	Open	3.8	Open	3.70		
	Close	3.8	Close	3.79		
	Step	0.0	Step	-0.09		
	Charge Up	0.0	Charge Up	0.00		
	Step No 3 flows - L/s					
Time	Site Re	eadings	SCA	ADA		
1.48 to 1.51 am	Open	3.8	Open	3.67		
	Close	3.8	Close	3.81		
	Step	0.0	Step	-0.14		
	Charge Up	0.0	Charge Up	0.00		
		Step No 4 flows - L/				
Time		eadings		ADA		
2.07 to 2.10 am	Open	3.6	Open	3.59		
	Close	3.4	Close	3.37		
	Step	0.2	Step	0.22		
	Charge Up	4.9	Charge Up	5.10		
		Step No 5 flows - L/		1.0.4		
Time		eadings		ADA		
2.38 to 2.41 am	Open	3.6	Open	3.64		
	Close	3.5	Close	3.50		
	Step	0.1	Step	0.14		
	Charge Up	4.9	Charge Up	4.90		
Time	Step No 6 flows - L/s Time Site Readings SCADA					
Time		eadings 3.5		3.56		
2.58 to 3.01 am	Open Close	2.1	Open Close	2.19		
	Step	1.4	Step	1.37		
	Charge Up	6 minutes	Charge Up	7 minutes		
	Charge Up	o minutes	Charge Up	i iiiiiutes		

Mahone Bay Step Testing - October 26, 2021 **Manual and SCADA Readings**

Step No 7 flows - L/s						
Time	Site Re	eadings	SCA	ADA		
3.19 to 3.22 am	Open	3.8	Open	3.78		
	Close	3.7	Close	3.65		
	Step	0.1	Step	0.13		
	Charge Up	0.0	Charge Up	0.00		
		Step No 8 flows - L/				
Time	Site Re	eadings	SCA	ADA		
3.29 to 3.32 am	Open	3.6	Open	3.53		
	Close	3.6	Close	3.66		
	Step	0.0	Step	-0.13		
	Charge Up	0.0	Charge Up			
	Step No 9 flows - L/s					
Time	Site Re	eadings	SCA	ADA		
3.44 to 3.47 am	Open	3.6	Open	3.73		
	Close	3.6	Close	3.64		
	Step	0.0	Step	0.09		
	Charge Up	0.0	Charge Up	0.00		
	Step No 6a flows - L/s					
Time	Site Re	eadings	SCA	ADA		
4.11 to 4.14 am	Open	3.7	Open	3.72		
	Close	3.7	Close	3.79		
	Step	0.0	Step	-0.07		
	Charge Up	0.0	Charge Up	0.00		
Step No 6b flows - L/s						
Time	Site Re	eadings	SCA	ADA		
4.22 to 4.25 am	Open	3.6	Open	3.67		
	Close	3.6	Close	3.63		
	Step	0.0	Step	0.04		
	Charge Up	0.0	Charge Up	0.00		

Mahone Bay Steps - Tuesday October 26, 2021				
<u>Step</u>	<u>Time</u>	Step Flow (L/s)		
A	0.33 to 0.36 am	0		
1	1.04 to 1.07 am	0.4		
2	1.25 to 1.28 am	0		
3	1.48 to 1.51 am	0		
4	2.07 to 2.10 am	0.2		
5	2.38 to 2.41 am	0.1		
6	2.58 to 3.01 am	1.4		
7	3.19 to 3.22 am	0.1		
8	3.29 to 3.32 am	0		
9	3.44 to 3.47 am	0.1		
6a	4.11 to 4.14 am	0		
6b	4.22 to 4.25 am	0		

Maureen Hughes

From: Penny Carver

Sent: Sunday, November 21, 2021 12:23 PM

To: Maureen Hughes

Cc: Dylan Heide; David Devenne

Subject: Motion for November 25th meeting

The Issue:

Fees for the Seniors' Fun & Fitness classes held in Mahone Bay are significantly higher than the equivalent classes held in the Town of Lunenburg, classes which are led by the same teacher and follow the same routine.

Background:

The Mahone Bay 55+ Exercise class is sponsored by MODL and is held at the Legion where I assume there is rent to be paid. The cost to participants is \$90 for 23 classes held twice a week over 12 weeks which works out to \$4 per class. These classes typically see 8 - 12+ participants.

The Lunenburg 55+ Exercise class is held in the TOL community centre where there is no rent to be paid since it is a Town facility. Participants pay \$79 for 45 classes (3 classes each week x 15 weeks) which works out to \$1.75 per class. The Lunenburg classes regularly register up to 40 participants.

I believe that a lower fee will make the Mahone Bay classes more inclusive and accessible for seniors.

Motion:

My motion is that Council approve a grant to MODL in the amount of the Legion rental costs for the Mahone Bay Seniors' Fun & Fitness class with the intention of reducing the fees charged, and that this grant be implemented as soon as possible.

Penny Carver Councillor, Town of Mahone Bay Town of Mahone Bay November 18th, 2021 Asset Management Committee Meeting



The regular meeting of the Town of Mahone Bay's Asset Management Committee was held on Thursday, November 18th, 2021 at 12:00 p.m. via videoconference.

Present:

Mayor D. Devenne
Deputy Mayor F. Kangata
CAO D. Heide
Manager of Finance L. Wentzell
Manager of Public Works & Transportation J. Uhlman
Climate & Energy Coordinator M. Horsman
B. Lewis
D. Waterfield
Councilor R. Nowe

Absent:

T. Merry (Regrets)

Gallery: NONE

Approval of Agenda

A motion by Councilor R. Nowe, seconded by B. Lewis, "THAT the agenda be approved as presented."

Motion carried.

Approval of Minutes

A motion by Deputy Mayor F. Kangata, seconded by D. Waterfield, "THAT the minutes of the October 21st, 2021 Asset Management Committee be approved as presented."

Motion carried.

Draft Wastewater Assets Management Plan Review

Committee members reviewed the presented draft asset management plan for Wastewater Assets. During the discussion of the provided document, there were a few items that were identified and discussed that will be updated on the draft document. The discussion will also inform both the AIM Cohort 2.0 process, and the upcoming budget deliberations and ICIP funding applications.

AIM Network Cohort Program Update

CAO D. Heide provided a brief update to the Committee regarding the November 10th, 2021 kickoff meeting to the Cohort 2.0 program. There were two pieces of homework from the kickoff session: review/renewal of current AM policy, and review/update of level of service worksheet. This homework will be included on the Committee's December meeting agenda. The next Cohort session will be held on December 7th, 2021 in Lockeport; Committee members are invited to attend.

Town Owned Property Assets

Committee members discussed how Town-owned surplus property could be integrated into our asset management plans. The idea that this surplus property could be used to support Council's strategic objectives including growing the supply of affordable housing stock was raised. It was decided that a listing of Town-owned properties – with a map – would be brought to a future meeting to assist with a more in-depth conversation on this topic.

Training Opportunities

The opportunity was highlighted for Committee Members to participate in the AIM Network Annual Asset Management Conference taking place in Dartmouth on November 29th to December 1st.

Next Meeting Date

The next meeting is scheduled for December 16th, 2021 at 12:00 PM

The meeting adjourned upon motion at 2:12 PM

TOWN OF MAHONE BAY	TOWN OF MAHONE BAY
 Mayor David Devenne	 Manager of Finance, Luke Wentzell



The special meeting of the Oakland Lake Watershed Advisory Committee for the Town of Mahone Bay was held on Monday, November 15, 2021 at 2:30 p.m. using video conferencing.

Present:

Councillor Richard Nowe (Chair)
Councillor Penny Carver
Kacy DeLong, MODL Councillor (left at 3:30pm)
Michael Allen, Provincial Planner
Byung Jun Kang, MODL Planner
Dylan Heide, CAO
Kelly Redden, Deputy Clerk

Absent:

Tom Ernst (regrets)

Approval of Agenda

A motion by Councillor Carver, seconded by Councillor DeLong, "THAT the agenda be approved as presented."

Motion carried.

Minutes

A motion by Councillor Carver, seconded by Councillor DeLong, "THAT the minutes of the October 4, 2021 meeting of the Oakland Lake Watershed Advisory Committee be approved as presented."

Motion carried.

Review of Risk Assessment

The committee reviewed the updated risk assessment that was drafted by Mike Allen. The committee will come back to the assessment once the Town's operator has an opportunity to review.

The meeting adjourned by motion at 3:35pm.

TOWN OF MAHONE BAY

TOWN OF MAHONE BAY

Councillor Richard Nowe

Kelly Redden, Deputy Clerk



Lunenburg County Seniors' Safety Program Monthly Report - October 2021

Report prepared: October 27, 2021

The LCSSP is a free confidential community-based non-profit service that works collaboratively with BPS, RCMP, and many community partners to help address the safety concerns of older adults (55 years of age+), residing in Lunenburg County. Service is provided through awareness campaigns, advocacy, community outreach projects, educational programs, community presentations and one to one service.

Nature of Referrals	Oct.	Service in Municipal Units Oct.
Supports needed	57	MODC 18%
Reported elder abuse	18	MODL 47%
Driving decisions/transportation	3	Mahone Bay 6%
Personal safety	7	Lunenburg 3%
Health & wellness	48	Bridgewater 35%
Supports needed – hoarding	9	Other/Unknown 4%
Precarious housing concerns	36	Data to Date Oct.
Assistance with forms/applications	10	Total # of clients 115
Financial management/hardship	5	# of new referrals 37
Reported scams/fraud	1	# of clients receiving service 96
Housing repair	4	# of home visits/door step visits 16
Reported domestic violence risk	4	# of closed files 36
Legal issues	4	
Social isolation	1	
Equipment needs	3	
Need of financial trustee	3	
Need for advocacy	1	

LCSSP UPDATES:

- Flourish LCSSP Seniors' Safety Academy is being carried out with good attendance. Public Health regulations are in place. Thank you to our many presenters.
- The LCSSP Legal Awareness Campaign this month we focused on Personal Directives.
- LCSSP P2P Digital Literacy for Lunenburg County –New Horizons grant project ongoing.
- Seniors' Legal Navigator Phase 2, Law Foundation of NS grant application has been submitted.
- The LCSSP has declined the funding grant offered through the Taming the Octopus project under the Aging Well Together Coalition for the Rental Housing Directory project.
- SSC's attended Community Links AWT meeting Oct. 21/21; New Regional Coordinator Meagan MacDonald

LCSSP CLIENT EMERGENCY CONTINGENCY FUND (CECF) REPORT:

The CECF continues to serve the community in partnership with other organizations to help mitigate risk for seniors experiencing financial hardship. Food security for two individuals was supported during this period of reporting (\$39.07). The October 30th, 2021 balance is: \$820.51.

'Thank you to all Lunenburg County Seniors' Safety Program supporters.

We couldn't do what we do without you.'

















Minutes of a Meeting of the MUNICIPAL JOINT SERVICES BOARD, LUNENBURG REGION

Virtual

Wednesday, June 23, 2021 6:30 p.m.

ATTENDANCE

MUNICIPALITY OF THE DISTRICT OF LUNENBURG

Mayor Bolivar-Getson (virtually)

Councillor Moore (virtually)

Councillor Oickle (virtually)

Tom MacEwan, CAO (virtually)

TOWN OF BRIDGEWATER

Mayor Mitchell (virtually)

D. Mayor Tanner (virtually)

Tammy Crowder, CAO (virtually)

TOWN OF MAHONE BAY

Mayor Devenne (virtually)

Councillor Feeney (virtually)

Councillor Nowe (virtually)

Dylan Heide, CAO (virtually)

REGRETS

Councillor Conklin

Councillor Statton

ALSO IN ATTENDANCE WERE

Ken Smith, Interim COO (virtually)

Tamara Fraser, Recording Secretary (virtually)

1. CALL TO ORDER

Mayor Devenne called the meeting to order at 6:33p.m.

2. APPROVAL OF AGENDA - Added Items

Moved by, Councillor Moore seconded by, Mayor Bolivar-Getson to approve the Agenda as amended. Carried.

3. APPROVAL OF MINUTES OF MAY 26, 2021, MEETINGS AS CIRCULATED

Moved by Mayor Bolivar-Getson, seconded by Councillor Nowe, that the Minutes of the May 26, 2021, Municipal Joint Services Board meeting be approved as circulated. Carried.

4. AGENDA ITEMS CARRIED FORWARD

5. NEW BUSINESS:

5.1 Introduction of Interim COO

Mayor Devenne introduced Ken Smith as the interim COO. He noted Mr. Smith will be with the Board for approximately 6 months until the selection process for the new COO is complete.

5.2 Interim COO Immediate Plans

Mr. Smith advised he assessed the status of the year-end financial preparation as the auditors were scheduled to start July 5, 2021. He also reviewed matters/files/topics in process or outstanding and noted the first item was RFP Forklift with the award slated to be made by the end of June.

Mr. Smith advised another file in process was hiring a Controller. He noted the ad had been posted publicly and closed on June 15, 2021. Approximately a dozen applications were received. From the 12 applications, 2 were chosen for interviews to take place June 25, 2021. Both interviewees are designated accountants and have accounting firm experience. It will take at least a month before a permanent Controller is in place if either one of the candidates is selected.

Mr. Smith explained to deal with the short-term financial issues he hired a temporary Controller, Taushonna Bazilsky, from JMS Accountant Staffing Ltd. She is initially assisting with year-end and audit preparation. He noted the fee for the service from Accountant Staffing is \$65/hour and she started June 22. He stated Luke Wentzell from the Town of Mahone Bay was on Site June 23 to help Mrs. Bazilsky get familiar with the set up at the Waste Site; he was the former Controller at Waste Site.

Mr. Smith advised they will not be ready for the July 5 audit date and has agreed with the Auditors and the 3 Finance Directors to extend the start date to July 12, 2021. He noted the challenge is that the COO and Controller are no longer with us, and background info will be lacking. He added the internal controls, and the routine accounting system is solid.

Mayor Bolivar-Getson asked what was missing for audit.

Mr. Smith explained between the trail balance and financial statement there are journal entries that need to be completed, particularly for year-end. He noted the local auditors from Grant Thornton are not available this year, Grant Thornton staff from Halifax will be looking after audit so we will need to be well prepared.

Mr. Smith advised the next item of priority is the Scotia Recycling Contract as well as the Hauling Contract (Waste Site to Kaizer Meadow). He noted he will be in contact with Mrs. Second and Ms. Crowder to gather background information.

He stated he will also be assisting the Board with recruiting of the COO.

Mayor Bolivar-Getson inquired about the length of the Hauler Contract.

Mr. Smith noted he needs to review the contracts. He added he will update the Board at the July 28, 2021, meeting.

5.2 Financial Summary Report

Circulated with the Agenda was a financial summary.

Mr. Smith advised because the journal entries impact what is presented, he used last year's trial balance, 2019-20 vs this year, 2020-21 and April-May last year vs April-May this year to give a snapshot of the Revenue and expenses, he also noted depreciation has not yet been recorded.

He explained he wasn't yet familiar with the financial history of the past two years. He did point out that during Covid the commercial and residential garbage increased whereas GE Environmental collection decreased.

Councillor Feeney noted the Capital side is what the Board is concerned with. Should we hold off on some of the Capital items or are we able to go ahead with smaller projects. He suggested a report to the Board regarding cash flow requirements for capital projects be reviewed.

Mr. Smith noted the Board should exercise caution with the numbers as provided until the audit is complete. He explained he could update the information in 2 weeks as an FYI once we're ready for the auditors; draft financial statement.

Mayor Devenne suggested if it wasn't ready in two weeks then for the Board meeting on July 28, 2021.

Eric Corkum joined the meeting at 6:55 pm

Mayor Devenne move to item 5.4.

5.3 Update – Recruitment of Controller

Controller recruitment was given in 5.1

5.4 New Forklift

Circulated with the Agenda was a report on the RFP Forklift.

Mr. Smith noted there was an error in the report, MacFarland met the specs. He noted he and Eric Corkum met this afternoon to discuss.

Mr. Smith advised he met with the Lead Mechanic, the Site Manager, and the Supervisor Environmental Services to review the RFP Forklift. He noted the Toyota from Lift Tow was the recommended forklift, \$53,495; based on price, reliability, reputation, staff use to product, met the specs.

He explained he is looking for approval from the Board.

Moved by Councillor Feeney, seconded by D. Mayor Tanner, to direct staff to proceed with the award of the RFP Forklift to Lift Tow. Carried.

Eric Corkum left the meeting at 7:15 pm.

5.5 Update

Audit

A more detailed update will be given at the July meeting.

Scotia Recycling Contract Timelines

A more detailed update will be given at the July meeting.

Hauling Tender Renewal Plans

A more detailed update will be given at the July meeting.

- 6. IN CAMERA:
- 7. RECOMMENDATIONS/REFERRALS FROM COMMITTEES
- 8. CORRESPONDENCE
- 9. ADDED ITEMS:
- 10. Next Meeting Date July 28, 2021

11. ADJOURNMENT

There being no further business at 7:20 p.m., it was moved by Mayor Bolivar-Getson, seconded by councillor Moore, to adjourn the meeting. Carried.

MAYOR DEVENNE, CHAIR

KEN SMITH, INTERIM COO

Minutes of a Meeting of the MUNICIPAL JOINT SERVICES BOARD, LUNENBURG REGION Virtual

Wednesday, July 28, 2021 6:30 p.m.

ATTENDANCE

MUNICIPALITY OF THE DISTRICT OF LUNENBURG

Mayor Bolivar-Getson (virtually) Councillor Moore (virtually) Councillor Statton (virtually) Tom MacEwan, CAO (virtually)

TOWN OF BRIDGEWATER

Mayor Mitchell (virtually)
D. Mayor Tanner (virtually)
Councillor Conklin (virtually)
Tammy Crowder, CAO (virtually)

TOWN OF MAHONE BAY

Mayor Devenne (virtually) Councillor Feeney (virtually) Councillor Nowe (virtually) Dylan Heide, CAO (virtually)

REGRETS

ALSO IN ATTENDANCE WERE

Ken Smith, Interim COO (virtually)
Derrick Foster, IT Project Coordinator
Eric Corkum, Site Manager LRCRC
Christine McClare, Region 6
Tamara Fraser, Recording Secretary (virtually)

1. CALL TO ORDER

Mayor Devenne called the meeting to order at 6:32 p.m.

2. APPROVAL OF AGENDA – Added Items

Moved by, D. Mayor Tanner seconded by, Councillor Moore to approve the Agenda as amended. Carried.

3. APPROVAL OF MINUTES OF JUNE 23, 2021, MEETINGS AS CIRCULATED

Moved by Councillor Moore, seconded by Councillor Feeney, that the Minutes of the June 23, 2021, Municipal Joint Services Board meeting be approved as circulated. Carried.

5.1 Presentation EPA – Christine McClare

Christine McClare, Region 6, presented Extended Producer Responsibility (EPR).

She explained EPR is an environmental policy which makes a producer responsible for the post-consumer stage of a product's life cycle. She noted 82% of Canadian consumers resided in jurisdictions that have EPR for Printed Paper and Packaging (PPP).

She noted materials covered under PPP include:

- Printed Paper (Kleenex, cereal, boxboard)
- Yogurt containers, glass containers
- Plastic film, plastic liner around paper towel, etc

Basically, anything currently collected in your blue bag.

Mrs. McClare explained in the proposed EPR model for PPP in Nova Scotia, municipalities can;

- Use existing infrastructure/human resources
- Municipalities have the right to opt out
- Maintain or improve current level of curbside service
- Apply to residential PPP
- Allow time for planning and transition

She noted small business who meet the following criteria would be exempt:

- Revenue under 2 million
- Supplying less than 1 tonne of PPP to NS residents annually
- Single storefront in NS and are not supplied by or operated as part of a franchise
- Newspapers and registered charities

Mrs. McClare advised this program will be harmonized with other Canadian EPR programs. There will be monitoring and compliance to ensure a level playing field.

D. Mayor Tanner noted NSFM issued a list of priorities to each of the partners and EPR was on the list. It is on the elections dashboard which is part of the NSFM website.

Councillor Feeney inquired if the legislation does follow through, where would the funding flow to, the province. Is the money paid by producers put in an escrow account.

Mrs. McClare advised it is built into regulation in other provinces where they have an administrative body, Canadian Stewardship Services Alliance for other provinces that have brought this in. They, in turn, funnel it through to the municipalities.

Councillor Feeney inquired about the mechanics of funding, is it based on population like the gas tax?

Mrs. McClare explained it would likely be based on volume/weight of product you are handling. What you have to pay for to manage the material.

Mayor Mitchell inquired if the money flows through the stewardship the to municipalities, would it then flow through the Municipal Joint Services Board to be distributed to the partners.

Mayor Bolivar-Getson asked if it would first flow through Region 6 then down to the municipalities.

Mrs. McClare explained it would be an agreement between a municipality and a thirdparty organization.

Mrs. McClare left the meeting at 7:05 pm.

4. AGENDA ITEMS CARRIED FORWARD

4.1 Director of IT - Update

Derrick Foster, IT Project Coordinator, advised there was a security issue this past week, an employee's account was compromised. The employee noticed some suspicious activity in their email and notified the IT Department. Mr. Foster noted the IT Department was able to quickly eliminate the threat. In the process of reviewing audit logs there is no indication of intrusion or impact to our internal network.

Mr. Foster advised our current version of office 365 doesn't give us all of the tools that we could have available to us to help minimize this type of breach. That would require changing our office type to a slightly higher version which would allow us to implement some items that would seriously reduce the potential of this. This would include:

- 2-factor authentication
- Geographical restriction for user logins

He advised the Municipality of the District of Lunenburg is working on implementation of an intranet for staff.

D. Mayor Tanner noted geographic constraints would be an issue for some users in the organization as travel and working remotely becomes common.

Mr. Foster explained, his understanding of the product is IT would be able to restrict / unrestricted by region or on a per employee basis; notified if travelling for example.

IT projects underway:

- District of Shelburne changing over to laser fiche, TOMB considering as well.
- New phone system (migration to EastLink phone system) for TOB
- TOMB moving forward with phone system
- LCLC replaced network infrastructure
- YMCA Fundy forced to vacate location, setting up in new location

Mayor Mitchell asked if we are seeing an increase in email threats where they get into the system.

Mr. Foster advised no, we are seeing an increase in the volume of emails coming through; mostly looking for you to buy gift cards or have you send money, not get into our system. Our current office 365 gives us audit ability but no alarm ability for straight

hacks. He noted the cyber training program is helping, 3-5 people would be reporting phishing emails in the past, that has increased to approximately 60 reports in one morning.

Mayor Bolivar-Getson inquired if the IT Department wants employees to report phishing emails.

Mr. Foster advised yes.

Mr. Foster left the meeting at 7:16 pm.

6. IN CAMERA

At 7:16 p.m., it was moved by, Councillor Feeney seconded by Mayor Mitchell, that the Municipal Joint Services Board go In Camera to discuss the following items:

6.1 Landfill Cartage RFP

Carried.

Municipal Joint Services Board In Camera in session.

At 7:39 p.m.; it was moved by Mayor Mitchell seconded by, Councillor Feeney that the Municipal Joint Services Board come out of In Camera and return to open session. Carried.

Municipal Joint Services Board in session.

Moved by, Councillor Moore seconded by D. Mayor Tanner, to post the RFP subject to legal input incorporating the flexibility with respect to "grace period" as noted in the report. Carried.

4.2 Social Media Report

Mr. Smith explained at the May 26, 2021, Board meeting, the COO presented a draft Social Media Policy for the Municipal Joint Services Board. The outcome of the discussion was that the COO would "update the draft Social Media Policy and circulate to the Board members for approval".

Mr. Smith inquired if this policy was for staff or staff and Board members.

He noted he would like the Board to consider the Social Media Policy template obtained from the AMANS, tailoring for our organization. As well, remove the Social Media Policy for staff from the Municipal Joint Services Board Personnel Policy, Network Acceptable Use.

The Board discussed the Social Media Policy.

Mayor Bolivar-Getson noted we should move forward with the updated AMANS version.

Mr. Smith advised he will update the AMANS Social Media Policy with what the Board discussed this evening and put on the September Agenda for the Board to review.

Moved by, Mayor Mitchell seconded by Councillor Now, to direct staff to update the Social Media Policy based on the AMANS version, and encourage staff to use their own social media content. Carried.

4.3 COO Update

Circulated with the Agenda was an update on activities at the Waste Site and the Municipal Joint Services Board.

Mr. Smith noted the new Controller, Katherine Williams, will start work on August 3, 2021, beginning on a part-time basis for the month of August and full-time on September 7, 2021.

He advised he has made arrangements with the Auditors to review the audited Financial Statement and Management Letter in August at the Finance Committee meeting so the new Controller and Interim Controller can be available. He noted that a date and time in the latter part of August is to be finalized.

He explained there are 2 RFQ's to be issued, one for Audit Services and one for Fixed Green Carts.

He advised he and Eric Corkum will be meeting with the President of Scotia Recycling and his Director of Sales and Marketing in Coldbrook on August 6 and at our site for a tour on August 5 to discuss the contract, reporting back to the Board in September.

Mr. Smith advised he and Mr. Corkum met with Dan MacDougall and Christine Rafuse from Keizer Meadow; re: transportation, the contact, Sustane Technology and HRM.

Financial Summary

Circulated with the Agenda was a copy of the Financial Summary.

Mr. Smith advised draft statements were sent to the Directors of Finance for the partners for information.

He noted there was an operating surplus of approximately \$400,000 for the year.

Mr. Smith briefly noted the Comparative Financial Overview for the 3 months ended June 30, 2021, versus June 30, 2020, circulated with the agenda. He noted from April-June there were no significant differences over last year.

5. NEW BUSINESS:

5.2 Audit Services Report

Mr. Smith advised the term of Audit Engagement Services expires in 2021.

A copy of his report was circulated with the agenda as well as a copy of a draft RFQ Audit Services.

He noted the previous contract term was for 4 years. He noted that the Procurement Policy section 17.6 makes references to a 5-year period for professional contracts for RFP's.

Mr. Smith advised the approved budget for Audit Services for 2021-22 is \$8,000.

Moved by, D. Mayor Tanner seconded by Councillor Feeney, Motion to approve a new RFQ for Auditing Services for a 5-year term starting in the 2021-22 fiscal year period. Carried.

5.3 Signing Authority

Mr. Smith advised we currently we do not have a delegated authority to discuss with our Canada Revenue Agency (CRA) Business Account or even access information on our account. The past process has been for the COO to be the delegated authority with CRA regarding our Business Account.

He suggested adding Katherine Williams, Controller, and an additional staff, Tammy Nauss, as a delegated authority with CRA.

Moved by, Councillor Feeney seconded by Councillor Conklin, to approve Katherine Williams and Tammy Nauss as delegated authorities with CRA as of August 5, 2021, and July 28, 2021, respectively. Carried.

Moved by, Councillor Feeney seconded by Councillor Conklin, to delete the names of Siew K. Secord and Jennifer Keating-Hubley as of July 28, 2021. Carried.

Moved by, Councillor Feeney seconded by Mayor Bolivar-Getson, to approve Katherine Williams as the system administrator for the MJSB accounts with TD Bank. Carried.

Mr. Smith asked if the Board would be interested in an orientation session at the Waste Site in the fall.

- D. Mayor Tanner requested a plan for a Strategic Planning Session for the September meeting.
- 7. RECOMMENDATIONS/REFERRALS FROM COMMITTEES
- 8. CORRESPONDENCE
- 9. ADDED ITEMS:
- 10. Next Meeting Date September 22, 2021
- 11. ADJOURNMENT

There being no further business at 8:23 p.m., it was moved by Mayor Bolivar-Getson, seconded by Councillor Moore, to adjourn the meeting. Carried.

MAYOR DEVENNE, CHAIR

KEN SMITH, INTERIM COC