LUNENBURG TOWN COUNCIL MEETING MINUTES

TUESDAY, JANUARY 14, 2020 AT 5:15 P.M.

(LUNENBURG TOWN HALL)

PRESENT: Mayor Rachel Bailey
Deputy Mayor John McGee
Councillor Ronnie Bachman
Councillor Danny Croft
Councillor Peter Mosher
Councillor Matt Risser

ALSO PRESENT: Paul Bracken, Facilities Superintendent
Kelly Cunningham, Recreation Director
Lisa Dagley, Finance Director
Heather McCallum, Assistant Municipal Clerk
Gary Mossman, Fire Hall Superintendent
Bea Renton, Chief Administrative Officer
Dawn Sutherland, Planning and Development Manager

ABSENT: Councillor Joseph Carnevale

The Mayor called the meeting to order at 5:15 p.m.

1. Agenda

Motion: moved by Councillor Risser, seconded by Councillor Mosher to approve the agenda. Motion carried.

2. December 10, 17 and 19, 2019 Council meeting minutes

Motion: moved by Councillor Croft, seconded by Councillor Bachman to approve the December 10, 17 and 19, 2019 minutes. Motion carried.

3. Public Hearings and Presentations

   a. Presentation by Jan Hull, President, Lunenburg Art Gallery Society, respecting a supplementary 2019/20 Grant application for an Earl Bailly collection display

Ms. Hull presented the Lunenburg Art Gallery Society's grant application (Schedule "A").

Council agreed to further consider the application under New Business later in the meeting.

4. Correspondence

   a. Department of Municipal Affairs and Housing “12 month notice letter” regarding proposed Police Act Regulation changes to extend the public complaint filing limitation period from six months to one year aligning with the RCMP Act

This item was received for information only as the Town does not operate its own Police Force and instead has an RCMP service contract.

5. Committee Meeting Minutes and Recommendations

   a. Comprehensive Community Plan Project Steering Team December 11, 2019 meeting minutes - recommendations

Council discussed the recommended motions. In response to a Council question, the Planning and Development manager explained that the final Project Lunenburg public engagement workshop is next week and then the focus will be on planning document writing, with drafts ready for Council in the Spring.

Motion: moved by Councillor Risser, seconded by Councillor Mosher that Council not accept any additional Municipal Planning Strategy amendments until the CCPSPT project is complete. Motion defeated. Mayor Bailey, Deputy Mayor McGee, Councillors Croft and Backman voted in the negative.

Motion: moved by Councillor Risser, seconded by Councillor Bachman adoption of option 2.5 in the staff report (Schedule “B”) as follows -

> ***Complete Project Lunenburg, then check Heritage Conservation District Plan and By-law for alignment.***
> *Wait until Project Lunenburg is complete prior to adoption of the new Heritage Conservation Plan and By-law. The architectural control areas would have to remain in the new MPS and be removed via an amendment later. The proposed Heritage Conservation District Plan and By-law would be reviewed for alignment with the CCP. This could be carried out in house or by the consultant, who is most familiar with all of the background data and strategic directions. This would be a change in scope, which would have budget implications.*

Motion: moved by Councillor Risser, seconded by Councillor Bachman to defer consideration of this motion. Motion carried.

   b. Recreation/Lunenburg War Memorial Community Centre Committee December 11, 2019 – recommendations

Motion: moved by Councillor Bachman, seconded by Councillor Croft that a staff report be prepared about the potential installation of “Share the Road” signage for cycling safety as noted in the AT Strategic Plan. Motion carried.

Motion: moved by Councillor Bachman, seconded by Councillor Mosher that a letter of support be sent for "The Great Trail Loop" (Schedule "C"). Motion carried.

In response to a Council question, the Recreation Director confirmed that the current 30-year-old ice resurfacer is nearing the end of its life, with maintenance now a challenge. She noted that purchase of a new ice resurfacer has a lead time of six months to one year for its manufacture.

In response to a Council question, the Finance Director advised that a reserve fund from Arena fee increases is accumulating to be applied to the purchase of a replacement ice resurfacer. Additional funding sources will be pursued.

Motion: moved by Councillor Bachman, seconded by Councillor Croft that Town Council pre-approve a propane ice resurfacer purchase in fiscal 2020/21 estimated at $125,000 plus HST to be funded through a fundraising campaign and the ice resurfacer reserve fund (Schedule "D"). Motion defeated. Deputy Mayor McGee, Councillors Croft and Mosher voted in the negative.

Council agreed by consensus that a new ice resurfacer is needed, but would like to further consider electric vs. propane and potential sources of funding.

c. Lunenburg Harbour Health Advisory Group November 6, 2019 draft meeting notes

These minutes were received for information only.

6. Unfinished Business

a. Corporate Services

i. Proposed appointment of a Chair to the 2020 Waste Reduction Strategy Working Group and approval of draft Guidelines

Council discussed the staff report (Schedule "E").

Motion: moved by Councillor Mosher, seconded by Councillor Risser the appointment of Mayor Bailey as the Council representative and Chair of the Waste Reduction Strategy Working Group. Motion carried.

Councillor Bachman offered to serve on the Group as well which Council agreed with.

In response to a Council question, staff advised that the Town's solid waste management budget can accommodate reasonable document production costs and advertising that the Group may recommend to Council.

Motion: moved by Councillor Risser, seconded by Councillor Mosher approval of the Guidelines for the Waste Reduction Strategy Working Group which the Group may further refine (Schedule "E"). Motion carried.

Council requested that if the Guidelines are revised by the Group that they be shared with Council.

b. Public Works

i. Solar Summit 2019 conference

The Facilities Superintendent presented the staff report on the recent Solar Summit conference (Schedule "F").

In response to a Council question, the Finance Director confirmed that the Town Electric Utility now has the ability to provide two-way metering for those who wish to have solar panels, and that the program has had many applications.

Council discussed several solar project initiatives for consideration in a staff report when the 2020/21 Budget process is complete.

7:01 p.m. – 7:16 p.m. – Council recessed.

ii. Dillon Consulting Engineering "peer review" report of CBCL Consulting Engineering's Wastewater Treatment Plant process upgrade recommendations

Council discussed the findings of the Dillon Consulting Engineering report (Schedule "G").

Motion: moved by Councillor Risser, seconded by Councillor Bachman that a staff report be prepared based on the CBCL Engineering response to the Dillon Engineering peer review of the CBCL wastewater treatment system report. The staff report should include: consultation with NS Environment and Halifax Water; suggestions for enforcement of the Sewer Discharge Bylaw; means to reduce salt water intrusion in the wastewater collection system; and Provincial funding opportunities for flood mitigation. Motion carried.

iii. Splash Pad alternative process for the issuance of a Request for Proposals for its design and construction at a pre-selected location – Council discussion deferred from December 10 staff report presentation

Council resumed discussion of the staff report (Schedule "H"), focusing on the potential splash pad location, funding, and operating costs.

In response to a Council question, the Recreation Director advised that the deadline for the Lunenburg Community Development Group to submit their application with Town assistance for provincial funding is February 3.

Councillor Risser reported that the Project Lunenburg consultants as requested by Council declined to offer an opinion on the splash pad location, as the decision is not a strategic one.

Motion: moved by Councillor Risser, seconded by Councillor Bachman to defer the splash pad location decision in order to solicit comment from Town Planning staff. Motion defeated. Deputy Mayor McGee, Councillors Croft and Mosher voted in the negative.

Motion: moved by Councillor Mosher, seconded by Councillor McGee to proceed with Option 1 in the staff report (Schedule "H") with a revision to the location selection – issue a request for proposals for the procurement of a splash pad with the Lunenburg War Memorial Community Centre grounds as the location for construction in 2020/21 pending funding from the Lunenburg Community Development Group. Motion carried. Mayor Bailey and Councillor Risser voted in the negative.

7. New Business

a. Corporate Services

i. Lunenburg Art Gallery Society 2019/20 supplementary Grant application

Council discussed the Lunenburg Art Gallery Society's grant application for construction of an Earl Bailly art display. The FD noted that there is $1,373 remaining in the 2019/20 grants budget.

Motion: moved by Councillor Risser, seconded by Councillor Mosher to approve the Lunenburg Art Gallery Society's supplementary grant application for an Earl Bailly art display (Schedule "A") in the amount of $1,000. Motion carried.

ii. Draft Complaints Process Policy

The CAO presented the staff report and draft Policy (Schedule "I").

Council agreed that the draft Policy be amended to provide Council with a copy of any formal complaints filed under the Policy for information.

Councillor Risser will give notice of motion of the proposed adoption of the revised Policy at the January 28 Council meeting.

Council agreed to proceed to agenda item #7.c.i. next.

c. Fire Department

i. Lunenburg and District Fire Department request for Council and Districts 1 and 2 Fire Commission approval to donate surplus firefighting turn out gear

Council discussed the recommendation from the Fire Chief (Schedule "J") to donate the turn out gear the Department no longer requires.

Motion: moved by Councillor Croft, seconded by Deputy Mayor McGee to approve the Lunenburg and District Fire Department's request to donate surplus firefighting turn out gear to other fire departments (Schedule "J") on an as-is, where-is basis. Motion carried.

The Fire Chief is to confirm with the Commission that they are in agreement with this as well before offering the turn out gear to other Departments. And further, he is to report to Council the results of the donation offer to the Protective Services Committee.

ii. Letter from the Municipality of the District of Barrington to all NS Municipalities requesting support for their application to the Provincial Department of Education and Early Childhood Development

It was noted that the Fire Chief supports this request (Schedule "K") as it would be beneficial to the LDFD Junior Firefighter membership with youth age 12-19 years.

Motion: moved by Deputy Mayor McGee, seconded by Councillor Croft that a letter of support be sent for Barrington's proposal to the Provincial Department of Education and Early Childhood Development to provide a personal development credit to students who join a volunteer fire department and complete the required training (Schedule "K"). Motion carried.

b. Public Works

ii. Region 6 Solid Waste Resource Management Committee draft 2020/21 budget approval request

Council discussed the Region 6 2020/21 draft budget, which includes a $139.35/7.5% increase from 2019/20 for the Town of Lunenburg, for a total 2020/21 expenditure of $1,997.35 (Schedule "L").

Motion: moved by Councillor Risser, seconded by Councillor Bachman to approve the 2020/21 Region 6 Inter-Municipal Committee Budget in the amount of $833,272 with Town of Lunenburg municipal billing portion of $1,997.35 (Schedule "L"). Motion carried.

iii. Additional Pump Station Capital Upgrade Requirement for Fiscal 2019/20

The staff report (Schedule "M") was reviewed by Council.

Motion: moved by Councillor Risser, seconded by Councillor Mosher to approve an increase of $21,000 including net HST to the 2019/20 repairs to pumps in lift stations capital budget, for a total budget of $55,000 including net HST in fiscal 2019/20 and that the funding for the entire capital project will be from sewer reserves. Motion carried.

iv. November 2019 Water and Wastewater Plants treatment test results

The staff report was provided for information (Schedule "N"). Council asked that Public Works staff include in the report chart the reason for any test result variances.

8. Adjournment

Motion: moved by Councillor Risser, seconded by Councillor Bachman to adjourn the meeting. Motion carried.

The meeting was adjourned at 8:24 p.m.

_____
Bea Renton, CAO and
Heather McCallum, Assistant Municipal Clerk

Schedule "A"

Schedule "A"

TOWN OF LUNENBURG
COMMUNITY GRANTS PROGRAM APPLICATION FORM

Please review the attached Town of Lunenburg Procedural Policy: Community Grants Program before completing this Application. Attach all the additional information requested before submitting your application. Applications must be received by **March 31st**.

Name of Non-Profit Organization: Lunenburg Art Gallery Society

Primary Contact Person: Jan Hull, President

Daytime phone number (☐ Work ☐ Cell ☐ Home): 902-644-3756

Mailing Address: PO Box 1418, Lunenburg B0J 2C0

Fax Number: _____ E-mail Address: president@lunenburgartsociety.ca

Organization Website: www.lunenburgartgallery.com

1. Amount of funding requested: $ 1,000.00

   In-kind Town of Lunenburg services requested: —

2. The organization is a:

   ☑ NS registered society name Lunenburg Art Gallery Society

   ☐ Registered National Charity name/# N/A

   ☐ Other (please describe) _____

3. The geographic area serviced by the organization is: Lunenburg Town and surrounding area

4. Please describe, in detail, the specific use of the funds requested. Attach additional sheet if needed.

   We will build a fixed display unit within our Gallery to display some of the art and artifacts of Earl Bailly, on a rotating basis. This display will show Bailly's fine artwork, while illustrating some of the challenges he worked with. It will also be a focal point for appeals for development of the Bailly Collection.

5. How will the community benefit from the funds received?

   Earl Bailly was honoured as a Prominent Citizen of the Town of Lunenburg, and his art has been praised internationally. Development of the Bailly Collection will once again permit the community to admire his work and share his story. The developed Collection will be a major tourist draw.

Please include the following information with your completed application:

☑ Financial Statements from your last fiscal year.

☑ Budget for the current fiscal year.

☑ Project budget and funding sources summary.

☐ Previous post grant report confirming use of earlier approved grant monies (if applicable).

I/we, the undersigned, hereby state that, to the best of our knowledge, all information contained in this application form and any attachments are a true representation of our proposed project and I/we will comply with the terms and conditions of an approved Town grant.

Printed Name of Authorized Representative	Signature of Authorized Representative	Position Held in Organization	Date MM / DD / YY
Jan Hull		President	12/10/19

Please return this form and all requested information by mail, fax, email or in person to:

Community Grant Program
Town of Lunenburg - Finance Director
PO Box 129
119 Cumberland Street
Lunenburg, NS B0J 2C0
(Fax): 902-634-4416, ldagley@explorelunenburg.ca

LUNENBURG ART GALLERY SOCIETY 2018 FINANCIAL STATEMENT

Income	Total
Gallery Sales	31,441.00
Workshops	6,160.00
PSOS	24,644.15
ABOAC	200.00
High Tea	1,103.00
Membership	3,735.00
Donations	11,767.95
Grant receipts	1,125.00
Other income	2,759.64
Total income	**82,935.74**

Expenses	Total
Rent	8,850.00
Power & Water	1,704.06
Insurance	2,025.50
Renovations	4,275.79
Office	28,403.28
Advertising	780.57
Supplies openings	410.04
Payments to artists	31,292.46
Gallery exps	493.37
Workshop exp	4,753.95
PSOS expenses	2,025.68
Refunds	340.00
High tea	180.87
ABOC	855.00
Purchases	60.00
Total expenses	**86,450.57**
Income less expenses	**(3,514.83)**

LUNENBURG Art SOCIETY

4 of 5

2019 FORECAST

	A	B	C	D	E	F	G	H	I	J
1		**ACCOUNTS**	**2018 ACTUAL**	**COMMENTS**		**2019 FORECAST**	**COMMENTS**		***NOTES**	
2		**Income**				**Income**				
3		Gallery Sales	31,441.00			24,000	8% increase in sales		**1**	
4		GIFTED gift shop	-	New		10,000	"		**1**	
5		Workshops	6,160.00			0	Discontinued		**3**	
6		PSOS	24,644.15			24,000	At capacity; no increase expected		**2**	
7		ABOAC	200.00			0	Discontinued		**4**	
8		High Tea	1,103.00			0	**Discontinued**		**4**	
9		Membership	3,735.00	125 @ $30		5,000	125 @ $40 dues			
10		Donations	11,767.95	$10k bequest		2,000	Developing donors list		**5**	
11		Grant receipts	1,125.00			5,500			**6**	
12		Other income	2,759.64			2,000	Fundraising		**4**	
13		Total income	**82,935.74**			**72,500**	13% reduction			
14										
15										
16		**Expenses**				**Expenses**				
17		Rent	8,850.00			9,600	$800/mo (+ HST recoverable)			
18		Power & Water	1,704.06			2,400				
19		Insurance	2,025.50			2,300	Tenant, D&O, Special events			
20		Renovations	4,275.79			1,600	Maintenance & display costs			
21		Office	28,403.28			14,000	Payroll + office expenses		**7**	
22		Advertising	780.57			1,500	Marketing brochures + advt		**8**	
23		Supplies openings	410.04			1,200	Refreshments for 8 openings			
24		Payments to artists	31,292.46	Combined		23,800	70% of Gallery sales		**1, 2**	
25		Payments PSOS sales		New		11,000	50% of PSOS net sales		**2**	
26		Gallery exps	493.37			0	Incl in Office			
27		Workshop exp	4,753.95			0	Discontinued		**3**	
28		PSOS expenses	2,025.68			2,500	Rental, signs, advt		**2**	
29		Refunds	340.00			0				
30		High tea	180.87			0	Discontinued		**4**	
31		ABOAC	855.00			0	Discontinued		**4**	
32		Earl Bailly Collection	-	New		1,000	Collecting, cataloguing, display		**9**	
33		ArtBUS	-	New		1,500	One-day schoolbus rental		**10**	
34		Purchases	60.00			0				
35		Total expenses	**86,450.57**			**72,400**	16% reduction			
36		***Income less expenses***	**(3,514.83)**			**100**				
37										
38		**NOTES to 2019:**								
39		With a significant shortfall confronting us for 2019, we plan to curtail spending.								
40		We will also curtail workshops and any other projects that call volunteers away from our primary								
41		responsibility of operating the Galleries, Paint Lunenburg (PSOS), and outreach events.								
42		We are confident of this Budget.								
43		1. **GALLERY SALES**: includes Members' and Exhibitions galleries plus the renewed and renamed GIFTED shop.								
44		2. **PSOS:** Paint Lunenburg Art Festival is our plein air painting event July 20-21 in Lunenburg. 70 artists.								
45		3. **WORKSHOPS:** earned $1400 but volunteer demands were too great. We won't sponsor any in 2019.								
46		4. **FUNDRAISING:** 2018 events netted $268 after many volunteer hours. New F/R methods are planned for 2019								
47		5. **DONATIONS:** one bequest for over $10,000 saved 2018 from catastrophe. We are cultivating a donor list.								
48		6. **GRANTS:** includes Lunenburg Foundation for the Arts $600 for 2019 School Show; MODL bal of 2018 AO grant								
49		7. **PAYROLL 2019**: reduced operating hours by 40% to avoid losses; members will volunteer for weekend shifts.								
50		8. **MARKETING PROGRAM - *NEW:*** brochures, advts, to increase awareness in Hfx and other centres, to grow sales								
51		9. **EARL BAILLY - *NEW*** : our volunteer Curator of this historic art collection is taking steps to house and promote it								
52		10: **ARTCaravan - *NEW*** : A focus on outreach: pop-up art shows in rural MODL neighbourhoods								

2019-12-1011:33 AM

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LUNENBURG Art SOCIETY

LUNENBURG ART GALLERY SOCIETY
194B Lincoln Street | PO Box 1418 Lunenburg NS B0J 2C0
(902) 640-4044 info@lunenburgartsociety.ca
www.lunenburgartgallery.com

EARL BAILLY DISPLAY PROJECT 2019
BUDGET

EXPENSES

Construction materials	$ 500
Labour	$ 800
Electrician	$ 500
Display décor	$ 400
TV/DVD player	$ 250
TOTAL COST	**$2450**

REVENUE

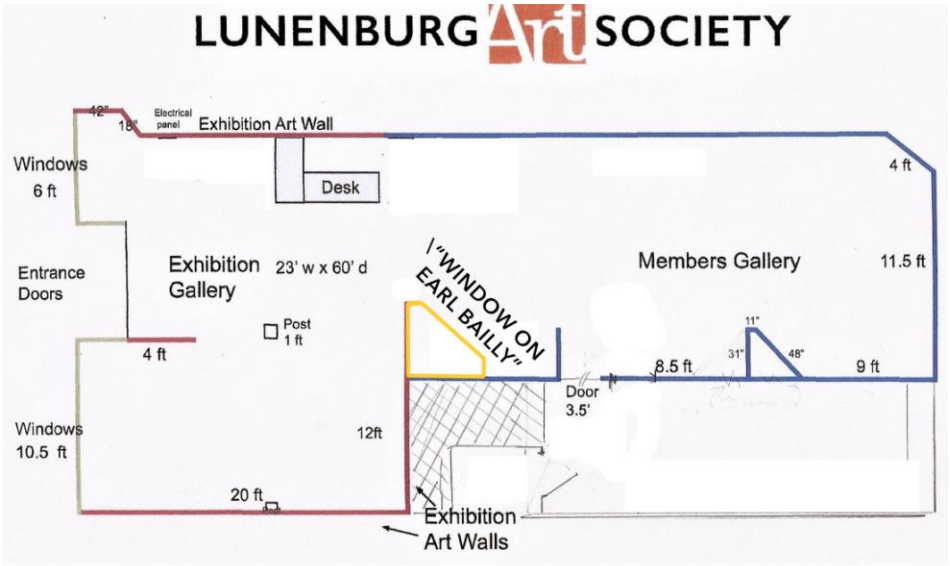
Labour	$ 800	LAGS members
Display décor	$ 400	LAGS members
TV/DVD	$ 250	Donated
TOTAL REVENUE	**$1450**	

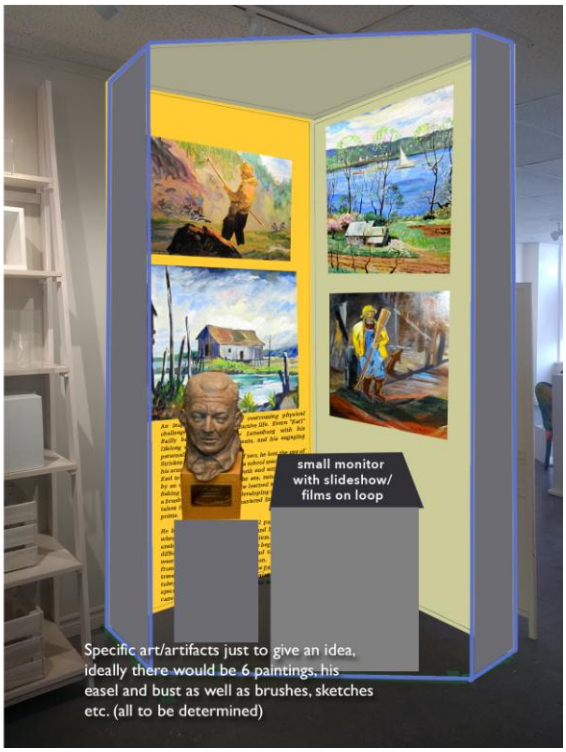
BALANCE **($1000)** **Grant requested from Town of Lunenburg**

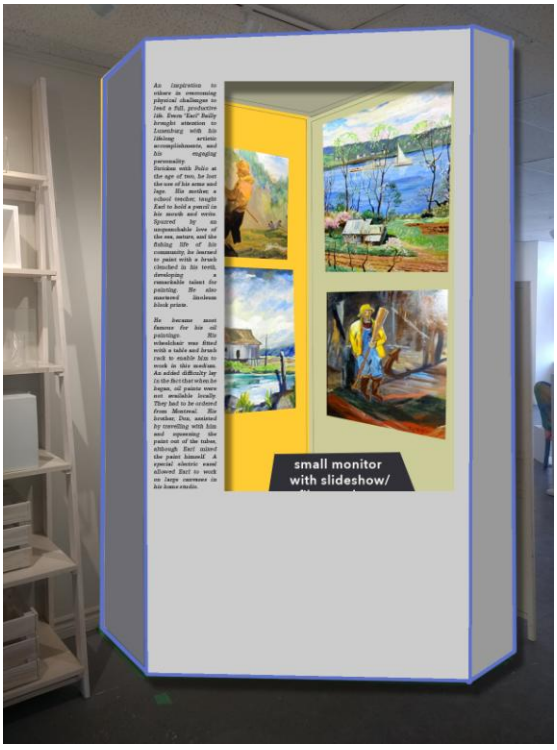
December 10, 2019

LUNENBURG ART GALLERY SOCIETY
194B Lincoln Street | PO Box 1418 Lunenburg NS B0J 2C0
(902) 640-4044 info@lunenburgartsociety.ca
www.lunenburgartgallery.com

EARL BAILLY DISPLAY SKETCHES (subject to minor alterations)







Schedule "B"

Document No: 4.e
Meeting: Dec.11, 2019
Circulate To: Project Lunenburg Steering Team, BR, HM

M E M O R A N D U M

TO: **Project Lunenburg Steering Team**

FROM: **DAWN SUTHERLAND, DEVELOPMENT/PLANNING MANAGER**

DATE: **December 6, 2019**

RE: **Discussion on how Project Lunenburg and the Heritage Conservation District Plan and By-law work together.**

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1. FACTS

The Steering Team is responsible for the overseeing of the contract for Project Lunenburg and are jointly responsible for identifying and mitigating any issues that would negatively impact the outcome and implementation of the Project.

After completion, Project Lunenburg's new Comprehensive Community Plan (CCP). Municipal Planning Strategy, Land Use By-law and Subdivision By-law will be working together with the new Heritage Conservation District Plan and By-law to regulate development within certain areas of the Town of Lunenburg. It is important that all of these documents are in alignment and support the shared vison of our collective future.

The timing of the adoption and notice of coming into effect of all of these new documents will be important for the regulation for new development.

1.1 How we regulate development now

Applications for development are unique in that they may require all or some permits to enable construction to proceed.

A simplified explanation of the approvals for a property that falls within the Heritage Conservation District is as follows:

The application is taken in and copies are sent to the appropriate department for review and issuance of a permit. If there are any changes required, changes to the application are made and it is re-circulated so that all have the amended application. If the requirements are all met, then a Certificate of Appropriateness is issued by the Heritage Officer under the Heritage Conservation District By-law, a Development

Permit is issued by the Development Officer under the Land Use By-law, and then a Building Permit issued under the Building By-law and Building Code regulations.

The Heritage Conservation District Plan and the Municipal Planning Strategy are policy documents of Council. The Heritage Conservation District Plan and By-law are enabled under the *Heritage Property Act*. The Heritage Conservation District By-law regulates architectural character and the aesthetic setting of the Heritage Conservation District. The Municipal Planning Strategy, Land Use By-law and Subdivision By-law are enabled under the *Municipal Government Act* and are considered land use planning documents. There are slight differences, especially with respect to advertising times and notifications.

1.2 Comprehensive Community Plan (CCP)

The CCP will provide strategic direction from implementation to forty (40) years into the future. It will be a dynamic document, with review for relevance approximately every five (5) years. Not only will it be the foundation document for the Town's planning documents (Municipal Planning Strategy, Land Use By-law, Subdivision By-law), but also be the basis of decision making for all areas of the Town. In addition to policy direction, it will contain recommendations and prioritized actions in order to implement the plan. Some of these recommendations and prioritized actions will be considered by Council via the budget approval process.

The CCP will be based upon extensive community engagement. As such, the CCP is rooted in community and will contain a shared vison for the future and a path to achieve that vision. UPLAND has reported that there have been over 750 engagement interactions and the engagement is not complete. Engagement activities include, but are not limited to, stakeholder interviews, targeted engagement, community workshops, social pinpoint, focus groups, and individual surveys. The CCP will be a community based plan that will set the direction for the future.

1.3 Built Heritage and Streetscape Theme

Given the importance of "heritage" to the Town of Lunenburg, UPLAND hired Wendy Shearer OALA, FCSLA, ASLA, CAHP, a Landscape Architect and Cultural Heritage Specialist, who contributed to the project. Ms. Shearer carried out research and then made a site visit to Lunenburg. She held a group meeting with invitations extended to the Steering Team, Planning Advisory Committee, Heritage Advisory Committee and the Heritage Society. There is member overlap between the Steering Team and PAC as well as the Heritage Advisory Committee and the Heritage Society. She also carried out interviews with current and former staff who have had a role to play in heritage matters. Ms. Shearer prepared a heritage report for UPLAND, which UPLAND used to contribute to their Discussion Paper. The Discussion Paper for Built Heritage and Streetscape, dated June 2019, is available on the Project Lunenburg website. A community workshop was held in June 2019. The What We Heard Report, dated August 2019, summarized the data received from the individual survey, social pinpoint, and the community workshop. It noted that the "significant theme relates to the divergent views on architectural preservation" and identified a number of other ideas and emerging trends. With respect for planning for the future, the What We Heard Report set out that respondents had divergent views as to how the Town should balance heritage preservation with modern development. There were polarizing opinions on preservation. The dichotomy was with total heritage preservation on one

side and less regulation and permitting of modern development on the other side. It noted that striking a balance between total heritage preservation and permitting modern changes was one of the major discussion points in the engagement. Based upon the engagement, they put forth that planning for the future will require a better balance.

1.4 Review Process for the Heritage Conservation District Plan and By-law

The Heritage Manager has been working diligently with the Heritage Advisory Committee over the past year on a new Heritage Conservation District Plan and By-law. A summary of the changes between the current and proposed Heritage Conservation District Plan and By-law can be found on the Town of Lunenburg website (bottom of the page). Public Participation Meetings for the proposed new Heritage Conservation District Plan and By-law were held on 15 and 21 October 2019. The Heritage Advisory Committee is now taking the input from the PPM and revising the documents, as appropriate. It is anticipated that the draft will be completed in March 2020 with the Heritage Advisory's recommendation to Council coming thereafter. The draft documents for the CCP will be out for public review in July and August with adoption by Council in the fall. With respect to timelines, the review process for the adoption of the new Heritage Conservation District Plan and By-law is ahead of the adoption of Project Lunenburg's planning documents.

2. ISSUES AND OPTIONS

Issues

2.1. Alignment

Project Lunenburg and the review of the Heritage Conservation District Plan and By-law are parallel processes running at the same time. Both will result in documents that will regulate development in some manner. The Heritage Conservation District By-law regulates the built form of properties and their settings within the District. The Land Use By-law regulates use and currently contains architectural control areas where form is regulated. These architectural control areas will be assumed into an expanded Heritage Conservation District under the new Heritage Conservation District Plan and By-law. Where the CCP will be the strategic planning document for the Town, the planning documents as well as the new Heritage Conservation District Plan and By-law should be in alignment with the CCP.

2.2 Timing

It is important that the time frames for Project Lunenburg's planning documents and the new Heritage Conservation District Plan and By-law are considered with respect to implementation. If the approval processes are run in parallel with no consideration given to alignment, we may end up with documents that are in conflict with each other.

A potential gap in regulation would occur if Project Lunenburg planning documents were be adopted, while the current ones are repealed, with the existing the Heritage Conservation District Plan and By-law in effect (new one not in effect). There would be no heritage regulation in what is the currently the architectural control areas if this occurred. If the new Heritage Conservation District Plan and By-law were adopted first, there would be no gap.

Please note that Council is the final authority on the timing of adoption of documents.

2.3. Engagement

There is extensive public engagement in the preparation of the CCP. The What We Heard Report for Built Heritage and Streetscape has revealed that there are dichotomous opinions regarding heritage preservation and permitting modern changes. Much of this engagement was carried out after the proposed new Heritage Conservation District Plan and By-law review process was well underway and documents drafted. The Heritage Conservation District Plan and By-law review process did not have access to such information during its creation. Please note that the Heritage Conservation District Plan and By-law process is in conformance with the *Heritage Property Act* as well as the Town of Lunenburg Public Participation Program.

Options for discussion:

2.4. Do nothing.

Both approval processes would continue to run independently. If not adopted at the same time or if the Heritage Conservation District Plan and By-law is not adopted first, there is a chance that the current architectural control areas in the Land Use By-law would have no heritage regulation. There is also a chance that the CCP and the new Heritage Conservation Plan and By-law would have areas where both plans do not align. It is difficult to determine this now as the CCP has not been drafted.

2.5. Complete Project Lunenburg, then check Heritage Conservation District Plan and By-law for alignment.

Wait until Project Lunenburg is complete prior to adoption of the new Heritage Conservation Plan and By-law. The architectural control areas would have to remain in the new MPS and be removed via an amendment later. The proposed Heritage Conservation District Plan and By-law would be reviewed for alignment with the CCP. This could be carried out in house or by the consultant, who is most familiar with all of the background data and strategic directions. This would be a change in scope, which would have budget implications.

2.6. Concurrent check for alignment between the CCP and the proposed Heritage Conservation District Plan and By-law.

As the CCP is being drafted, have UPLAND check the proposed Heritage Conservation Plan and By-law for alignment now. This would require a change in Project scope and have financial implications.

2.7. New project: Heritage Conservation District Plan and By-law

Much like the CCP process for the Municipal Planning Strategy and Land Use By-law and Subdivision By-law, a new project would be afforded budget and resources to carry out an extensive review of the Heritage Conservation Plan and By-law. This option would ensure that the documents would be based upon the same principles and be in alignment with the CCP. This option would have budget implications. It could be carried out in-house (noting limited staff capacity in terms of time and technology) or could be subject to the RFP process as Project Lunenburg was.

3. FINANCIAL IMPACT

A change in scope will have financial implications and would be considered a substantive change to the current contract with UPLAND Planning and Design Studio. A change in scope would have to be approved by Council.

Where this is a preliminary discussion, no information has been gathered with respect to cost.

4. STRATEGIC PLAN RELEVANCE

The Municipal Planning Strategy review project is in keeping with following Strategic Plan Goals:

#1 Promote a high quality of life for residents
#2 Celebrate our community
#3 Champion opportunities for our community's health and well-being
#4 Foster an environment for business success
#5 Operate the Town efficiently and effectively.

5. RECOMMENDATION

This item is for discussion purposes.

Schedule "C"

August 23, 2019

Dear Trail Manager;

Stretching for more than 24,000 kilometres and profiling Canada's diverse landscapes and communities, The Great Trail of Canada is now the world's longest network of recreational multi-use trails! Here in Nova Scotia, the Western Loop of this trail is now being planned in collaboration with a number of municipal, provincial and community partners.

You are receiving this letter because you are a trail manager along a proposed section of The Great Trail – Western Loop. It is hoped that you are willing to offer your cooperation, in principle, by providing a letter of support for your section of the route to be part of the Western Loop.

Our volunteer committee, made up of representatives from stakeholder groups in the Western Region, are working to identify the benefits of being part of the Great Trail and how your communities and trails can be supported. For example, it may be useful for you, as trail managers, to be able to maintain your independence, and still:

- ✓ Identify as part of the national brand in addition to your own trail promotion
- ✓ Potentially access funding
- ✓ Take advantage of opportunities with marketing partners and corporate sponsors
- ✓ Have access to support staff for GIS and fundraising

The Great Trail Western Loop Steering Committee would like to gauge interest in having your trail section become part of this trail system, following which we would develop a routing plan to submit to The Great Trail committee. Please indicate your interest in participating by completing the attached template and returning to:

Glenn McMullen
The Great Trail Officer (GTO)
Nova Scotia Trails Federation
5516 Spring Garden Road, 4th Floor, Halifax, NS B3J 1G6
glenn@novascotiatrails.com

If you would like to discuss the opportunity, offer any suggestions or ask questions, please contact either one of us so we can help move this project forward. In addition, you may check out the NS Trails website for more information at https://nstrails.com/the-great-trail/

Sincerely,

Laura Barkhouse
Co-chair
Laura.barkhouse@modl.ca

Rick Jaques
Co-chair
valleytrailcoordinator@gmail.com

The Great Trail – Western Loop Date: _____

On behalf of _____,

- we are interested in participating in planning for the Great Trail - Western Loop. We understand that by stating our interest through this letter, we are indicating our support for helping to plan the trail route, but it is does not release any authority over our trail.
- We are NOT interested in participating in planning for the Great Trail – Western Loop.

Comments:

_____

_____

_____

_____

_____

From:	Kelly Cunningham
To:	Heather McCallum
Subject:	Fwd: Western Loop - The Great Trail
Date:	November 20, 2019 3:54:32 PM
Attachments:	image002.png ATT00001.htm image004.jpg ATT00002.htm letter and form to trail managers.pdf ATT00003.htm

---

Begin forwarded message:

From: Kelly Cunningham <KCunningham@explorelunenburg.ca>
Date: November 20, 2019 at 3:28:08 PM AST
To: "Laura.Barkhouse@modl.ca" <Laura.Barkhouse@modl.ca>
Subject: Fwd: Western Loop - The Great Trail

Begin forwarded message:

From: Laura Barkhouse <Laura.Barkhouse@modl.ca>
Date: September 4, 2019 at 9:44:33 AM ADT
To: Laura Barkhouse <Laura.Barkhouse@modl.ca>
Subject: Western Loop - The Great Trail

August 23, 2019

Dear Trail Manager;

Stretching for more than 24,000 kilometres and profiling Canada's diverse landscapes and communities, The Great Trail of Canada is now the world's longest network of recreational multi-use trails! Here in Nova Scotia, the Western Loop of this trail is now being planned in collaboration with a number of municipal, provincial and community partners.

You are receiving this letter because you are a trail manager along a proposed section of The Great Trail – Western Loop. It is hoped that you are willing to offer your cooperation, in principle, by providing a letter of support for your section of the route to be part of the Western Loop.

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- ✓ Take advantage of opportunities with marketing partners and corporate sponsors
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glenn@novascotiatrails.com

If you would like to discuss the opportunity, offer any suggestions or ask questions, please contact either one of us so we can help move this project forward. In addition, you may check out the NS Trails website for more information at https://nstrails.com/the-great-trail/

Sincerely,

Schedule "D"

Document No: 5 (e)
Meeting: Dec 11/19 LWMCC
Circulate To: LWMCC, KC, LD, KR
File:

M E M O R A N D U M

TO: **LWMCC RECREATION COMMITTEE**

FROM: **KELLY CUNNINGHAM, RECREATION DIRECTOR**

DATE: **DECEMBER 6, 2019**

RE: **LUNENBURG WAR MEMORIAL ARENA: ICE RESURFACER CAPITAL PURCHASE 2020/21**

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1. FACTS

In the Town of Lunenburg 10 year Capital Budget for the Recreation Department, the Lunenburg War Memorial Arena Ice Resurfacer is anticipated to be replaced in the 2020/21 budget for $125,000. The following information is referenced in the 2019/20 budget:

> *Ice Resurfacer (89) (2020/21)*
> *The existing ice resurfacer is a 1989 Olympia. It has given us good service over the past twenty nine years but we have had issues over that time with the transmission, the hydraulic system, the starter motor (replaced four times), and the fuel carburetion system. The conditioner, the blade and auger system mounted at the rear of the machine, have also been replaced. We are fortunate that our staff are well versed in mechanical repairs plus we have had the benefit of hydraulic/automotive technicians in the local area to call upon when the problem is beyond the scope of our own staff. We are reaching the point where nursing the machine along from year to year is becoming more challenging.*

In the Ice Resurfacer reserve fund, there is currently $50,000, plus interest of $1,100, for a total of $51,100. In the 2019/20 fee schedule, a “resurfacer surcharge” has been added onto the hourly rental rate of $4.00/hour, which was anticipated to gain approximately $4,200 in the 2019/20 fiscal year. The Arena closes for the season on Monday, March 30, 2020.

2. ISSUES AND OPTIONS

MONETARY
As noted in the Capital Expenditures Description, the current ice resurfacer has provided us good service but we have had recent mechanical issues. We are fortunate

that our staff are well versed in mechanical repairs; however, the machine is near the end of its lifespan. Staff are concerned that a major parts failure could put the ice resurfacer out of service for an extended period of time during the next ice season.

There is currently $51,100 in the ice resurfacer reserve fund plus an anticipated $4,200 from the Arena rental surcharge. This approximates a total of **$55,300** reserved for this capital purchase. Based on the predicted $125,000 capital amount, we are in need of approximately **$70,000**.

Options:
Staff were anticipating on applying for the province's "Recreation Facility Development Capital Grant", which could support up to one-third of the total capital project up to a maximum of $150,000. Since, Council included the installation of a Splash Pad in the 2020/21 budget at $200,000 under Recreation Infrastructure. The Lunenburg Community Development Group, on behalf of the Town, is currently in the process of applying for the same grant in the 2020/21. Only one application is accepted per municipal unit and it is highly anticipated that the Splash Pad would receive the funding over an Ice Resurfacer Replacement.

A funding request was sent to the Municipality of the District of Lunenburg (MODL) in March 2019 to provide funding for the replacement of the Ice Resurfacer in the amount of $40,000. MODL decided to wait until next fiscal year to make a decision as the purchase was to be made in 2020. It should also be noted that MODL provides the Town with an operating grant to assist with operational funding; however, this amount was reduced in 2019/20 when MODL supported the Community Centre structural roof repairs with a $40,000 grant payable over 4 years ($10,000 per year). The operating grant offsets is important annual funding.

An option is to inquire for corporate sponsorship(s) from businesses.

There is a potential resale value of $3,000 to $5,000 for the current 1989 Olympia at an auction. However, it was recommended by Monarch Enterprise (the local Olympia dealer) that the Town keeps the older machine as a backup.

The Sportsnet "Kraft Hockeyville" contest begins in January 2020 with applications due February 10, 2020. The Canadian winner receives $250,000 in arena upgrades and the second place winner receives $25,000 in arena upgrades. An application form could be considered for this.

TYPE OF MACHINE
Ice resurfacers are powered by either propane or electric, with the top two brands being Olympia and Zamboni. The cost of a propane machine is significantly cheaper in the initial purchase in comparison to an electric machine; however, it is anticipated that over a 12 year duration, the cost could be comparable. The Zamboni life cycle for both electric vs. propane are relatively the same and, for a rink similar in size to Lunenburg, is approximately 15-20 years. The Olympia life cycle is said to be approximately 20-30

years. There are also natural gas powered machines; however, professionals have said this would not be an option in Lunenburg. Please see APENDIX A for an “Electric vs. Propane” financial review compiled by Saunders Equipment Ltd (Zamboni suppliers).

The decision between a propane and electric machine is a significant choice. Staff compiled an internal propane vs. electric pros and cons list for reference:

PROPANE MACHINE	
PROS	**CONS**
Cheaper in initial purchase.	Potential for emissions/odor.
Town Staff are highly experienced with a propane machine.	Propane fuels are on site at Arena which could be a potential hazard.
If there is an issue with a machine, there is a local (Bridgewater) professional that is dependable to look at our issue the day of. There are more experienced professionals that work with propane, and many do not like to work on the electric machines as they are new.	Increase staff safety when handling propane.
Propane has been dependable on hand to run the machine and does not require charging (i.e. if the cord is not plugged in correctly or is forgotten overnight, the machine might not operate properly).	Possibility of propane shortage.
Would not need to install a charging station in the Ice Resurfacer room, which could require electrical upgrades and room renovations.	
Consistent and predictable annual cost for propane.	
New machine should have minimal to zero smell or odor.	

ELECTRIC MACHINE	
PROS	**CONS**
Considered to be eco-friendly and no emissions.	New batteries (3-4) required every 8-10 years, approximately $27,000.
Claims to have less maintenance due to not having to do service on engine or fuels.	Ice resurfacer room will likely require electrical upgrades to withhold charging station and installation of new exhaust fan from gases produced by recharging.
Potential to be safer due to not requiring propane on site.	Room renovations would be required to install the charging station. Requirements include: mount charger off the floor (4ft in height), a safety zone of 4 ft where all equipment or other matter cannot be

	kept, and charger must be close to the breaker.
Technology for electric machines has come a long way in recent years.	Uncertain how the old batteries are recycled.
The machine itself is quieter when running.	Maintenance professionals are currently trained in Halifax. No local service provider.
Olympia Supplier has said per flood the electric costs $0.50 and the propane is $3.00/flood.	Town Staff would not be as familiar and fixing/repairs could take longer to complete.
	Charging is critical and machine would not run if plugged in incorrectly or forgotten.
	Lower re-sale value in compared to propane.
	A single ice cleaning takes longer (approximately 3-5 minutes longer) compared to propane.

I have consulted with many other Arena Managers in Nova Scotia who have recently purchased new ice resurfacers. Please see the chart below:

MUNICIPALITY	**NEW MACHINE PURCHASED**
Town of Trenton	Zamboni propane (~2018)
Municipality of Barrington	Olympia propane (2018)
Town of Kentville	Zamboni propane *(currently being shipped)*
Acadia University	Zamboni propane (2019)
Halifax: BMO and RBC Centres	6x Zamboni propane (*purchased 4 new in 2017)*
Town of Berwick	Olympia electric *(purchased when new facility was built)*
Lunenburg County Lifestyle Centre	Olympia electric *(purchased when new facility was built)*

The Recreation Staff have agreed that a propane ice resurfacer is the preferred purchase for a new machine.

OTHER IMPORTATION INFORMATION

A few important notes from the Ontario Recreation Facilities Association Inc. document titled “Safe Ice Resurfacer Room Battery Charging Unit Installation and Use Guidelines” (June 2014):

“Often, the primary shift toward battery powered equipment is based on indoor air quality issues caused by fossil fuels. Shifting to battery technology may in fact significantly reduce the potential for poor indoor air, however, it is important to

understand that hazardous gases can be generated during the charging process, and as such, must be properly controlled" (page 1).

"Facilities that are considering switching from fossil fuels to battery powered equipment must consider a variety of construction and operational issues beyond equipment selection" (page 4). These requirements for the ice resurfacer room includes the ceilings, lightings, fixtures, and other equipment close in proximity. As well as electrical upgrades to withhold the charging station.

It should also be noted that a new ice resurfacer typically takes approximately 5 to 6 months, or in some cases up to a year, for a new machine to be delivered.

3. FINANCIAL IMPACT (prepared by the Finance Director)

Based on a capital purchase of $125,000, approximately $70,000 is required to fund a new ice resurfacer in fiscal 2020/21. If an electric ice resurfacer is selected to be purchased, additional funds will be required for renovations and electrical upgrades to the ice resurfacer room to meet regulations. If external funding is not received, Council will need to consider a capital borrowing for this important piece of equipment.

4. STRATEGIC PLAN RELEVANCE

Goal 5B: Continually and strategically maintaining and upgrading community infrastructure.
Goal 3B: Facilitating and encouraging healthy lifestyles.
Goal 5A: Making best use of Town-owned buildings and land.

5. RECOMMENDATION

It is recommended the LWMCC Recreation Committee discuss ways to raise additional funds for the capital ice resurfacer.

***Draft motion*:** Motion: moved and seconded to recommend to the Lunenburg Town Council to pre-approve a propane ice resurfacer purchase in fiscal 2020/21 estimated to be approximately $125,000, and to be funded through a fundraising campaign and the ice resurfacer reserve fund. Motion carried.

Acknowledged only by:

Bea Renton
Town Manager/Clerk

APPENDIX A:

Electric vs. Propane Financial Review by Saunders Equipment Ltd (Zamboni suppliers)

Electric vs Propane
Lithium Battery

Propane Zamboni 446 - $110,000.00
Cost of interest over a 7 year term at an interest rate of 6.00% is $23,850.00
Total cost of the Zamboni plus interest - $133,850.00

Propane cost over a 12 year period – 5 tanks per week – 7 months/yr. @ $50.00/tank. $50.00 x 5 = $250.00/week x 4 = $1,000.00/month x 7 months = $7000.00 x 12 years = $84,000.00
Tune up on propane portion only - $1,000.00/year x 12 years = $12,000.00

Total Cost over 12 years = $229,850.00

Electric Zamboni 450 - $165,000.00
Cost of interest over 7 yr. term at an interest rate of 6.00% is $38,610.00
Total cost of the Electric Zamboni plus interest - $203,610.00

New battery after 8 - 10 years is $27,000.00. (Can municipal arenas budget or save in an account $2,700.00 - $2,800.00 per year for a new battery? Operating budget vs capital budget)
Fuel cost - $0.00
Extra electricity cost to charge the battery/month for 12 years - **?**
Extra cost for 3 phase wiring for the charger - **?**
Extra cost for explosion proof ventilation in Zamboni room - **?**

Total cost over 12 years - $230,610.00

Difference in cost over 12 years - $760.00 more for the electric Zamboni

Cost difference would be higher if the above 3 (?) costs were known.
The resale value, today, of a propane Zamboni is higher than the resale value of an electric Zamboni.

Schedule "E"

Document No:
Meeting: January 14, 2020
Circulate To: COUNCIL
File: COUNCIL

M E M O R A N D U M

TO: **TOWN COUNCIL**

FROM: **HEATHER MCCALLUM, ASSISTANT MUNICIPAL CLERK**

DATE: **JANUARY 3, 2020**

RE: **WASTE REDUCTION STRATEGY WORKING GROUP – CHAIR AND GUIDELINES**

---

1. FACTS

At the November 12, 2019 Council Meeting the following motion was passed:

> *Motion: moved by Deputy Mayor McGee, seconded by Councillor Croft to approve "Option 1" contained in the staff report (Schedule "E") by establishing a working group of elected, staff and stakeholder members to develop a Town Waste Reduction Strategy and/or action plan. Motion carried. Councillor Risser voted in the negative.*

Note: "Schedule E" refers to the October 11, 2019 staff report "Waste and Plastics Reduction Strategy" from the Assistant Municipal Clerk to the General Government Committee.

2. ISSUES AND OPTIONS ANALYSIS

There are two items that require input from Council for the group to begin their work:

a) Appointment of a Council representative to chair the group, per the working group membership outlined in the staff report; and
b) Approval of Draft Guidelines for the Waste Reduction Strategy Working Group to keep the work on task and on time.

Membership

The following members/stakeholders have agreed to join the Waste Reduction Strategy Working Group:

- Town elected official(s); chaired by a member of Council:
  - To be appointed
- Staff as assigned by CAO:

    - Assistant Municipal Clerk
    - Public Works Superintendent)
- Invited community stakeholders:
    - Region 6/Divert NS (Kirk Symonds)
    - LBOT (representative TBD)
    - Coastal Action (Ariel Smith)
    - Plastic Free Lunenburg (Sue Kelly)

Once a chair has been appointed, an inaugural meeting will be scheduled for this month.

Guidelines

Attached are Draft Guidelines for the Working Group (Attachment "A"). The Guidelines include membership, preliminary objectives, consultation methodology and tasks per the October 11, 2019 staff report, as well as a suggested deadline target of March 31, 2020 for the group's recommendations to Council.

3. FINANCIAL IMPACT

No additions to impact outlined in the October 11, 2019 staff report (Attachment "B").

4. STRATEGIC PLAN RELEVANCE

This project is in keeping with:

- Strategic Plan Goal #1: Promote a high quality of life for residents.
    - A. Beautifying the community.
    - D. Engaging our citizens.

- Strategic Plan Goal #3: Champion opportunities for our community's health and well-being.
    - A. Protecting our natural environment.

- Strategic Plan Goal #5: Operate the Town efficiently and effectively.
    - C. Developing and updating Town bylaws, policies, procedures and plans.
    - D. Developing partnerships and strengthening inter-municipal, provincial and federal relations.

5. RECOMMENDATION AND DRAFT MOTION

It is recommended that Council adopt the following draft motions:

Draft motion: moved and seconded that Council appoints _____ as the Council representative and chair of the Waste Reduction Strategy Working Group.

Draft motion: moved and seconded that Council approves the Draft Guidelines for the Waste Reduction Strategy Working Group (Attachment "A").

Attach.

A. Waste Reduction Strategy Working Group - Draft Guidelines, Jan 3 2020
B. GG Oct 30 19 Waste and Plastics Reduction Strategy, Oct 11 2019 (for reference only)

Acknowledged only by:

_____
Bea Renton
CAO

TOWN OF LUNENBURG

WASTE AND PLASTICS REDUCTION WORKING GROUP

DRAFT GUIDELINES

1.0 DEFINITIONS

"Town" means the Town of Lunenburg.

"Council" means the Council of the Town of Lunenburg.

"Working Group" means the Waste and Plastics Reduction Working Group, an advisory body reporting to Council.

2.0 PURPOSE

The purpose of the Working Group is to coordinate stakeholder consultation, review consultation data, and develop a Waste Reduction Strategy with recommendations for action to Council. This may or may not include Town legislative or policy changes.

3.0 RESPONSIBILITIES

3.1 The responsibilities of the Working Group will be to:

a. Confirm or revise the draft Objectives of the Strategy, as below:
- Increase resident and business participation in waste prevention and diversion, including single-use materials like plastics, styrofoam, etc.
- Improve education programs
- Use financial incentives and disincentives to keep waste out of landfills
- Encourage the Province to enforce producer responsibility for end-of-life management of products and materials, lifting the burden from municipal taxpayers
- Ensure the Town of Lunenburg leads by example by reducing waste in all municipal government work
- Support collaborative efforts for waste reduction with other organizations

b. Coordinate consultation via workshops, meetings, surveys or other means with stakeholders, to be defined as:
- Residents – permanent and seasonal

- Businesses – including tourism, grocery, restaurant, retail, and other affected businesses directly and via the Lunenburg Board of Trade
- Advocacy groups – including Coastal Action's Ocean Friendly Nova Scotia and Plastic Free Lunenburg
- Intra-municipal – Region 6 Solid Waste Management, the Federation of Nova Scotia Municipalities (re: extended producer responsibility in NS)
- Provincial – Environment NS, Divert NS, Develop NS – NS Bill #152 Plastic Bags Reduction Act (received royal assent on Oct. 30, 2019 and commences Oct. 30, 2020)
- Federal – Environment Canada – July 2019 national plastics reduction strategy announcement, confirmed by Prime Minister's Twitter December 30, 2019 (details to come)

c. Review materials to include:
- The Town's current bylaw and policies on waste management or reduction for potential amendment (Bylaw #38, Procedural Policy #90);
- Existing public consultation data from Project Lunenburg and Plastic Free Lunenburg;
- Conduct a survey of businesses' waste reduction challenges and opportunities
- Consultation meetings with stakeholders as required
- Consider issuing an invitation for further comment via email
- Region 6 audit of public waste units November 2019

d. Provide a recommendation to Council for a Town-specific Waste Reduction Strategy and/or Action Plan, including estimated costs.

3.2 The Working Group may consult with Town staff, Council and stakeholders as necessary.

3.3 The Working Group may seek outside expertise as necessary.

4.0 MEMBERSHIP

4.1 The members of the Working Group shall consist of

- Town elected official(s): chaired by a member of Council;
- Staff assigned by the CAO: Assistant Municipal Clerk and Public Works Superintendent;
- An invited representative from stakeholder organizations: Region 6 Solid Waste Management, Divert NS, the Lunenburg Board of Trade, Coastal Action and Plastic Free Lunenburg.

4.2 Members of the Working Group are appointed until such time as the Working Group has fulfilled its mandate or has been terminated by motion of Council.

5.0 MEETINGS

5.1 The time and schedule of Working Group meetings shall be determined by the Chair in consultation with the Working Group members.

5.2 A quorum of the Working Group shall consist of a majority of its members.

5.3 All meetings of the Working Group shall be held in public.

5.4 The Working Group shall operate in accordance with the procedures provided in the Municipal Government Act and Roberts Rules of Order.

6.0 FINAL REPORT

6.1 The Working Group shall submit a written report to Council outlining its findings and recommendations by March 31, 2020.

6.2 The Working Group's report shall be a public document and will contain reasons and justification for all recommendations.

Document No:
Meeting:
Circulate To: GENERAL GOVERNMENT COMMITTEE
File: GENERAL GOVERNMENT COMMITTEE

M E M O R A N D U M

TO: **GENERAL GOVERNMENT COMMITTEE**

FROM: **HEATHER MCCALLUM, ASSISTANT MUNICIPAL CLERK**

DATE: **OCTOBER 11, 2019**

RE: **WASTE AND PLASTICS REDUCTION STRATEGY**

1. FACTS

At the July 18, 2019 General Government Committee meeting the following motion was approved:

> *Motion: moved and seconded that a staff report be prepared advising what form of public consultation should take place with various stakeholders including Plastic Free Lunenburg, Region 6 Waste Management, Divert Nova Scotia and Lunenburg Board of Trade to develop a waste reduction and plastic reduction strategy for the Town. Motion carried.*

As requested, this report will address the objectives for a waste and plastic reduction strategy for the Town, and outline proposed public consultation with stakeholders with a suggested timeline.

On September 26, 2019 the Province introduced legislation that: “once passed would prohibit the use of single-use plastic bags, which would take effect in a year.” (CKBW News)

N.S. Bill #152 “Plastic Bags Reduction Act” is significant in that one of the original premises for considering municipal action was that the Province was not pursuing a plastic ban at that time.

2. ISSUES AND OPTIONS

CURRENT STRATEGY, REGULATION, AND PRACTICE

Provincial Waste Management Strategy

Waste and Plastic Reduction in Nova Scotia is addressed in:

- Nova Scotia's Solid Waste Resource Management Strategy (1995);
- Renewal of Nova Scotia's Solid Waste Resource Management Strategy (2009); and
- Our Path Forward: Building on the Success of Nova Scotia's Solid Waste Resource Management Strategy (2011).

Nova Scotia leads the country in reducing the amount of waste that goes to landfills.

Town of Lunenburg Regulation & Practice

- Bylaw #38 Solid Waste Management (2015) deals with garbage, recyclables, and organic materials collection, container regulations, restrictions, rejection and prohibitions, special collections, responsibilities of owners and occupants including commercial, haulers, household hazardous waste and construction or demolition materials, and illegal disposal including fines.

- Policy #90 Compostable Material Use and Waste Reduction Initiatives (2018) deals with reducing the use of non-recyclable containers and other materials for meetings, special events, and other municipal activities. This is applicable to Town properties only.

- Inter-municipal: The Town of Lunenburg, along with 12 other south-west Nova Scotia municipalities, is served by Region 6 Solid Waste Management.

  Region 6's services include education, regional cooperation and encouragement of common standards, diversion credits, and implementation of provincial-approved programs (Divert NS and NS Environment).

  Apps are also available – *R6RECYCLES* and *My ENVIRO-DEPOT* – to assist residents and businesses.

OPTIONS

Staff was asked to advise on what form of public consultation should take place to develop a waste and plastic reduction strategy.

Option 1: Working Group-Led

- Strike an invited working group to develop a recommended Town of Lunenburg-specific Waste Reduction Strategy and/or Action Plan:
  - Town elected official(s); chaired by a member of Council;
  - Staff (Assistant Municipal Clerk, Public Works representative); and
  - Stakeholders (Region 6, Divert NS, LBOT, Coastal Action, PFL).

Option 2: Staff-Led

- Task staff (Assistant Municipal Clerk) to project manage the consultation and timeline, including one-on-one meetings with stakeholders with assistance from other staff or elected officials as required to develop a recommended Waste Reduction Strategy and/or Action Plan.

Note: The next topic for the Project Lunenburg comprehensive community plan is "Environment and Sustainability". The public workshop is on October 24, 2019.

PROCESS

Preliminary Objectives

The following preliminary Objectives for discussion were adapted from goals identified by Nova Scotia's Solid Waste Resource Management Strategy:

The "Three Rs" are in order: first reduce, second reuse, then recycle.

1. Increase resident and business participation in waste prevention and diversion, including single-use materials like plastics, styrofoam, etc.
2. Improve education programs
3. Use financial incentives and disincentives to keep waste out of landfills
4. Encourage the Province to enforce extended producer responsibility for end-of-life management of products and materials, lifting the burden from municipal taxpayers
5. Ensure the Town of Lunenburg leads by example by reducing waste in all municipal government operations
6. Support collaborative efforts for waste reduction with other organizations

Stakeholder Consultation Process

<u>Stakeholders</u>

- Residents – permanent and seasonal
- Businesses – including tourism, grocery, restaurant, retail, and other affected businesses directly and via the Lunenburg Board of Trade

- Advocacy groups – including Coastal Action's Ocean Friendly Nova Scotia and Plastic Free Lunenburg
- Intra-municipal – Region 6 Solid Waste Management; the Federation of Nova Scotia Municipalities (re: extended producer responsibility in NS);
- Provincial – Environment NS, Divert NS, Develop NS – Bill #152 tabled on September 26, 2019
- Federal – Environment Canada – July 2019 national plastics reduction strategy announcement (pending the outcome of the Federal Election)

Methodology

- o Review existing public consultation data from Project Lunenburg and Plastic Free Lunenburg
- o Conduct a detailed survey of businesses' waste reduction challenges
- o Consultation meetings with stakeholders, as required
- o Issue an invitation for further comment via email
- o Region 6 is currently conducting an audit of public waste units (streamed and un-streamed) available in Town public areas and public buildings to assist in prioritized planning.

Preliminary Timeline

Month	**Option 1**	**Option 2**
Oct 2019	- Invitations to pre-identified stakeholders (see above) to form Waste Reduction Strategy working group - Research and background material assembly – share with group - Kick-off Waste Reduction Strategy working group - Terms of Reference - Business survey: Identify recipients and draft survey questions - Schedule consultation meetings - October 21-27 is Waste Reduction Week in Canada	- Schedule stakeholder consultation meetings - Research and background material assembly - Business survey: Identify recipients and draft survey questions - October 21-27 is Waste Reduction Week in Canada – tie into education programming coming from Region 6
Nov 2019	- Town public waste receptacle audit completed by Region 6; Public Works to review and determine priorities - Business survey – distribution - Consultation meetings	
Winter 2019/20	- Consultation meetings, as needed - Strategy and Action Plan development, including costs - Strategy and Action Plan submitted to Council for review – Council decision - Education and outreach (ongoing)	

Education

According to Region 6 Solid Waste Management, the issues of recycling and single-use materials comes down to a consumer behaviour issue. Customers continue to demand convenience items. There has been some attitude change, but not enough actual change in behaviour.

One only has to look at the ongoing illegal dumping problem, work to encourage people and businesses to comply with legislated bans on recyclables and organics going to landfills, as well as what can and cannot be dumped into the sewer system to see that legislation is not a silver bullet – education is key.

Current Education Tactics

- "NOT Wanted in our Wastewater System" campaign has some overlap with waste reduction in terms of illegal dumping and garbage going into wastewater;
- Boosting of Region 6 and Divert NS campaigns and information on Town of Lunenburg website and social media;
- Lunenburg Recreation hosted a public education series of eco-workshops for the first time on September 25, October 3, and October 10, 2019;
- Lunenburg Recreation is coordinating a public art project with Bluenose Academy students to paint a concrete streamed waste unit slated for the Skate Park; and
- Staff education through another lunch and learn with Region 6.

3. FINANCIAL IMPACT

Research and stakeholder consultation would require an estimated 60-100 hours of staff time.

It would have minimal out-of-pocket expenses associated for consultation and advertising/promotion of same. The exact cost would depend on the number of meetings and whether or not public workshop(s) is needed, with or without a third-party facilitator.

The outcomes of the public consultation may result in other costs that are TBA at this time.

4. STRATEGIC PLAN RELEVANCE

This project is in keeping with:

- Strategic Plan Goal #1: Promote a high quality of life for residents.
    - A. Beautifying the community.

- D. Engaging our citizens.

- Strategic Plan Goal #3: Champion opportunities for our community's health and well-being.
  - A. Protecting our natural environment.

- Strategic Plan Goal #5: Operate the Town efficiently and effectively.
  - C. Developing and updating Town bylaws, policies, procedures and plans.
  - D. Developing partnerships and strengthening inter-municipal, provincial and federal relations.

5. RECOMMENDATION

It is recommended that Council on review of this report determine if it wishes to proceed with a stakeholder consultation process for development of a Town of Lunenburg-specific Waste Reduction Strategy and/or Action Plan at this time.

Encl.

A. Nova Scotia Legislature – Bill 152 – Plastic Bags Reduction Act
B. Our Path Forward: Building on the Success of Nova Scotia's Solid Waste Resource Management Strategy

Acknowledged only by:

_____
Bea Renton
CAO

Schedule "F"

Document No: 6
Meeting: January 14, 2020
Circulate: Council
File:

M E M O R A N D U M

TO: **TOWN COUNCIL**

FROM: **PAUL BRACKEN, FACILITIES SUPERINTENDENT**

DATE: **JANUARY 14TH 2020**

RE: **SOLAR SUMMIT DECEMBER 4TH 2019**

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1. FACTS

November 26th 2019 Council Meeting:

- Request of Councillor Carnevale to attend the 2019 Nova Scotia Solar Summit
- Council was advised that staff members will be attending the conference on behalf of the Town.
- Councillor Carnevale withdrew his request to attend.
- Motion: moved by Councillor Croft, seconded by Councillor Risser that staff prepare a report following the 2019 NS Solar Summit conference on what was learned and how the Town can use that information in future. Motion carried.

Cali Beck and Paul Bracken attended the 2019 Solar Summit in Halifax on December 4th 2019.

2. ISSUES AND OPTIONS ANALYSIS

Notes on the conference provided for information and reference to the Council.

Solar Summit overview Notes - Dec 4th 2019

Host: Canadian Solar Industries Association (CanSIA), held at the Halifax Harbour front Marriott Hotel. The Canadian Solar Industries Association (CanSIA) is a national trade association that represents the solar energy industry throughout Canada. Since 1992, CanSIA has worked to develop a strong, efficient, ethical and professional Canadian solar energy industry with capacity to provide innovative solar energy solutions and to play a major role in the global transition to a sustainable, clean-energy future. Main Sponsors: Province of Nova Scotia, Efficiency Nova Scotia, Polaron Solartech.

Conference details: The Solar Summit conference was comprised of two main components: presentation sessions, and tradeshow networking. The body of this report contains a review of these sessions and links to the affiliated organizations are provided for further information.

Session 1: Nova Scotia Solar market update

- **Halifax Solar City – City of Halifax**
  - https://www.halifax.ca/home-property/solar-projects/about-solar-city-halifax

- The Solar City program offers property owners in the municipality access to innovative solar energy options, which can be financed through a solar collector account with the Halifax Regional Municipality. After the completion of the pilot program, Halifax Regional Council approved the continuation of the program which aims to:
  - offer an innovative financing option to avoid the large, upfront cost of solar energy installations
  - offer the option to install three unique solar energy systems
  - provide support and guidance to ensure the selected technology is best suited for their energy consumption needs
  - meet the municipal Community Energy Plan objectives
  - meet the municipal Economic Strategy objectives
  - meet the municipal Regional Plan objectives by supporting healthy, sustainable and vibrant communities
- Who can access the solar city program?
  - Residential property owners
  - non-profit organizations
  - places of worship
  - co-operatives
  - charities
- Property owners can choose to install one, or all, of following solar technologies:
  - Solar photo-voltaic
  - Solar hot air
  - Solar hot water

- **Solar electricity for Community Buildings – Department of Energy and Mines**
  - https://novascotia.ca/solar/solar-electricity-community-buildings.asp
  - The Solar Electricity for Community Buildings Pilot Program. The Solar for Community Buildings Program enables eligible community groups and organizations to generate up to 75kW of solar **photovoltaic** (PV) electricity on their roofs or properties and sell it to their utility under a 20-year contract.
- **SolarHomes – Efficiency Nova Scotia**
  - https://www.efficiencyns.ca/residential/services-rebates/solarhomes/
  - Efficiency Nova Scotia offers incentives to make solar power more affordable than ever. The SolarHomes program helps Nova Scotia's harness the sun's energy by offering a rebate on an approved solar photovoltaic (PV) systems. Homeowners have more choices and more control over their energy future, while reducing carbon emissions, and improving air quality. Solar PV systems can help you reduce your energy bills on average $1,500 per year.
  - This solar program is funded by the Government of Canada's $56 million-dollar commitment to Nova Scotia from the Low Carbon Economy Leadership Fund. Efficiency Nova Scotia is administering the program for the province.
  - Average cost of solar array for residential install was reported as $24,000. Customer who can take part in PACE financing tend to finance between $10,000 - $15,000. This is roughly the balance of the project after the SolarHomes Rebate
  - SolarHomes Rebate structure changed as of November 1, 2019. Structure changed from $0.85/Watt up to $8,500 or 35% of project cost to $0.60/Watt up to $6,000 or 25% of project cost.
  - SolarHomes Program update – Province wide
    - Applications Received:1,900
    - Average system size: 9.8 kilo Watt

- Total value of projects: $47.5 Mil
- Total rebates committed: $11.8 Mil
- Total completed project: 700
- Total capacity installed: 6.5 Mega Watt
- Total rebates Paid: $5.6 Mil

Session 2: Financing and the business case for mid-scale solar projects

- CoPower – Green bonds
  - https://copower.me/en/
  - When you invest in Green Bonds you're investing in a diversified portfolio of loans to clean energy and energy efficiency projects. The projects generate steady revenues from the sale of clean energy or energy savings, allowing you to earn competitive fixed returns while reducing carbon emissions.
- Siemens – Energy Performance contracts
  - https://support.industry.siemens.com/cs/sc/4358/energy-performance-contracting?lc=en-WW
  - A truly comprehensive Energy Services Company, or ESCO, can help you take a holistic view of your energy and infrastructure needs and create a strategic plan that helps you address these challenges. In both public and private sectors, ESCOs offer an innovative option through guaranteed performance-based solutions. These energy savings performance contracts (ESPCs) allow you to use the savings that will be generated by the project to fund infrastructure improvement programs
- East port properties
  - https://eastportproperties.ca/?gclid=CjwKCAiA8qLvBRAbEiwAE_ZzPYDGddn6U6QsJ7o6SQ1XJG44BmxW43t2Ga_XxbbK6usoO_TJbJT4JRoCm5sQAvD_BwE
  - Doing what is right for the environment is a fundamental part of our business. But what's more important is that its good business. By developing sustainable buildings we save you money in reduced energy costs and increased wellness. And we like that.

Session 3: Utilizing Solar Roadmap to Unlock Nova Scotia's solar potential

- Canadian Solar Industries Association (CanSIA)
  - https://www.cansia.ca/
- **The plan focuses on five key areas that require action:**
  - Develop a supportive and stable policy and regulatory environment that recognize the total value of solar electricity, including externalities;
  - Simplify and streamline permitting and processes for grid interconnection and metering of solar electricity systems;
  - Reduce soft costs to levels consistent with global best practices;
  - Educate the Canadian population on the true benefits and costs of solar electricity, and empower them to take action to support and adopt solar; and
  - Develop new and enhance existing relationships with technologies, applications and stakeholders to create synergies that enables greater solar electricity use in Canada.
  - Very aggressive approach to renewable energy
  - 100% renewable by 2030
  - PACE Programs – property assessed clean energy programs

- Solar Nova Scotia
  - http://www.solarns.ca/
  - Discover Solar PV
    - Learning workshops hosted throughout Nova Scotia
  - Atlantic solar Study 2018
    - https://www.cansia.ca/uploads/7/2/5/1/72513707/cansia_nova_scotia_residential_solar_market_outlook_and_labor_force_study_-_final_report__2019-04-09_.pdf

Session 4: Nova Scotia Solar Research and Data Mapping Update
Dr. Wayne Groszko, Research scientist (NSCC) and Bryan Ellis, Dalhousie University Renewable Energy Storage Laboratory presented information on the impact of a rapid increase in the number of residential solar PV systems installed in Nova Scotia due to falling prices and incentive programs. Increasing numbers of intermittent energy sources, such as PV solar can impact grid performance due to misalignment of loads. NSCC and Dalhousie are using data collected from the systems that come online to study the effect of invertor clipping, snow coverage, shading, etc.

- NSCC and Dalhousie are devolving a Community Solar Data website to allow the public to view solar energy production (in near-real-time) and forecast data.
- IKEA's solar array was reviewed and the curtailment of the system was discussed. Curtailment occurs when the system is able to produce more energy than is allowed to be fed back into the grid.
- https://www.cansia.ca/uploads/7/2/5/1/72513707/wayne_groszko_nscc_ss19pptx.pdf

Keynote:
Cooperative Energy Futures, Minneapolis Minnesota
https://www.cooperativeenergyfutures.com/

- Community solar projects – solar gardens
  - Different approach to making clean energy accessible to everyone without upfront cost.
  - Subscription based service for solar gardens that provides subscribers with credit on electric bill.

Session 5: Nova Scotia Municipalities
Town of Bridgewater

- PACE Program, energy poverty (one stop shop, helps outline confusing programs)
- Smart Cities Challenge
- https://www.bridgewater.ca/town-services/planning/strategic-initiatives/bridgewater-smart-cities
- Recycle $ back to the community through investment

Alternative Resource Energy Authority

- https://www.areans.ca/
- 23.5 Mega Watts to Mahone Bay, Berwick, Antigonish

Municipality of Digby

- Economic development platform for thinking about and designing these projects
  - Tidal power service hub for the Bay of Fundy
  - Significant cost savings achieved by switching from High Pressure Sodium to LED street lighting

- PACE Program – RFP for contractor to build and facilitate a solar program
    - Single installer
    - 18 loans per year up to 20,000 10 year fixed rate for solar PV
    - Started with community group
    - https://www.colchester.ca/solar
    - $ from reserve to invest in Solar projects, better return on investment
        - Interest rate = prime + .75% = 4.7% fixed

Natural Forces

- Natural Forces is a private independent power producer that delivers renewable energy projects in partnership with local communities across Canada. We develop, construct, own, and operate wind, solar, and hydro projects with First Nation communities, universities, municipalities, and local community funds.

3. FINANCIAL IMPACT

The financial impact of any particular program implemented by the Town will have to be evaluated on its merits which would also include the impact on the Town's Electric Utility.

4. STRATEGIC PLAN RELEVANCE

5B continually and strategically maintaining and upgrading community infrastructure.

5. RECOMMENDATION AND DRAFT MOTION

"This report is provided for Council information only."

Acknowledged only by:

Bea Renton
Town Manager/Clerk

Schedule "G"

December 11, 2019

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Town of Lunenburg
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ATTENTION: Bea Renton
Chief Administrative Officer

Lunenburg Wastewater Treatment Plant Report – Peer Review

Dillon Consulting Limited (Dillon) is pleased to submit this report summarizing the findings of our peer technical review of the Town of Lunenburg Wastewater Treatment Plant – Evaluation and Options Identification, Final Report, March 27, 2019 prepared by CBCL Limited.

Background & Introduction

The Town operates a WWTP that was built in 2003 and utilizes the moving bed biofilm reactor (MMBR) and dissolved air flotation (DAF) process. The plant has been experiencing issues with meeting Provincial regulatory effluent requirements, generally as follows:

- 2017 BOD: average of quarterly samples met the federal criterion (25 mg/L), but failed the provincial criterion because one sample exceeded the Federal limit by a factor greater than 2.0;
- 2017 Fecal Coliforms: only 74% of samples met the 1000 MPN/100 mL criterion, versus a provincial minimum of 80%;
- 2017 Fecal Coliforms: Multiple samples exceeded the provincial limit of 2000 MPN/100 mL;
- 2018 BOD: One sample exceeded the federal limit by a factor greater than 2.0, which failed the provincial criterion;
- 2018 TSS: One sample exceeded the federal limit by a factor greater than 2.0, which failed the provincial criterion;
- 2018 Fecal Coliforms: Multiple samples exceeded the provincial limit of 2000 MPN/100 mL;
- 2019 Results (January – August Data): With the exception of some of the BOD and TSS results in January 2019, the plant was generally in compliance until June where there was one exceedance of fecal coliforms, which Town staff believed was due

to an illegal substance entering the sewer system. Over half of the July and August sampling showed exceedances above provincial/federal guidelines, however a "milky-greyish" substance was observed throughout the plant and is suspected of causing process upsets. Town staff believed they have identified the source of the unknown sewer discharge, and it has not occurred since.

Sampling of the plant effluent for reporting purposes is performed by weekly grab samples analyzed at the plant's lab and independently verified by accredited external laboratories. In addition to the above permit compliance exceedances, the Town is also challenged with respect to periodic visible wastewater characteristics at the effluent discharge point in the Town harbor, which is easily observed from the commercial wharf by residents and tourists. The cause of the visible plume is discussed by CBCL as resulting from excess polymer and TSS carryover from the DAF unit. This visible plume causes public outcry and poses a reputational risk to the Town.

CBCL Limited was retained in 2018 to complete an assessment report and identified three potential options for the Town to consider to improve their WWTP performance:

1. Replace the existing MBBR media with fixed-in-place media;
2. Upgrade the existing MBBR process and replace the DAF units; and
3. Replace the MBBR and DAF process with a new membrane bioreactor (MBR) process.

Dillon was retained to provide commentary on CBCL's assessment of the existing treatment system, review assumptions, general assessment, cost estimates and recommendations.

Peer Review Methodology

Process engineers from Dillon met with Town staff in October 2019. Following a meeting with the Town's Interim Engineer, CAO and Director of Public works, Dillon met with one of the plant operators and was given a detailed walkthrough of the plant's main processes, and discussed the operational challenges that the plant has been experiencing. These generally focused on:

- Inert solids (i.e. rocks) depositing in front of the influent screen with some passing the screen and plugging downstream processes;
- Severe corrosion of the aeration system piping inside the MBBR building;
- Work MBBR media;

- Solids carry over through the DAF to the treated effluent;
- Low treated effluent ultraviolet light transmittance (UVT) below the UV disinfection system design value, resulting in inefficient disinfection
- Odours throughout plant process areas (largely improved through the addition of a biofilter in 2019);
- Residual polymer levels in the plant effluent discharged to the harbour; and
- Aeration issues and low dissolved oxygen levels in the MBBR tanks.

At the time of the Dillon facility visit, the plant was restarting full operations after completing repairs associated with flooding damage caused by Hurricane Dorian in September 2019.

The following sections provide Dillon's peer review comments on the CBCL report. For organizational purposes, the chapter headings in this report reference the corresponding chapter numbers in the CBCL report.

Report Discussion & Peer Technical Review

Chapter 1: Introduction

No Dillon comments.

Chapter 2: Wastewater Treatment Plant

2.4.2: Bioreactor Tanks

The report comments that wear of the MBBR media in the bioreactor indicates that the media may not be suitable for this application. However, the bioreactor appears to be meeting the BOD reduction targets after 15 years of operation, and MBBR treatment performance is typically associated with a minimum media surface area in the treatment tank. In Dillon's opinion, media attrition over a 15 year period is acceptable based on life cycle cost, and annual replacement of a portion of the media as an operation expense to maintain treatment performance is a reasonable investment. Condition of the media and replacement media costs should be explored with the media supplier.

Dillon has assumed that the existing MBBR has adequate remaining media surface area to support biological treatment. Periodic microscopic examination of the MBBR reactor should be performed to determine if suspended filamentous bacteria are present in the MBBR tanks. Regular sludge volume index (SVI) testing of the DAF feed using an Imhoff Cone is a recommended approach to monitor biological solids; increasing SVI may suggest filamentous bacteria are present. If filamentous bacteria

are observed in the system, they may have an adverse effect on downstream DAF performance. Chlorine dosing of the MBBR would be required to control filamentous bacteria.

2.4.4: Dissolved Air Flotation Units

It is stated that the DAF recirculation pumps are causing turbulent conditions in the DAF, and potentially discharging poor quality micro bubbles. However, the DAF is currently operating using an on/off operation, where batches of wastewater are periodically released by gravity from the equalization tank (similar to the analogy of flushing a toilet). While Dillon observed similar turbulent DAF conditions, it cannot be concluded that this is caused by DAF recirculation pumping and/or periodic batch operation. Dillon observed ongoing release of micro bubbles at the channel surface (UV channel) downstream of the DAF unit, suggesting that micro bubbles are being successfully generated by the DAF system, but turbulent conditions in the DAF are affecting their ability to properly separate with attached suspended solids within the DAF tank.

The report comments that foam observed downstream of the DAF is caused by excess polymer and the weir drop inside the effluent box. While this may be a contribution to the foam, carryover of micro bubbles from the DAF to the effluent channel is likely also contributing to the observed foam.

Chapter 3: Wastewater Treatment Options

3.1: Design Criteria

In general, the design average and peak daily flow presented by CBCL are appropriate for the level of study completed. However, as the project proceeds through preliminary and detailed design, the average and peak daily flows should be based on a more rigorous statistical analysis of flow data, and compared to per capita loadings recommended by the Atlantic Canada Guidelines. Based on our analysis of CBCL's graphical data, this may result in a minor reduction in design flow, but is considered conservative for this stage.

The data in Table 3.1 represents a snapshot of the August – September 2018 operational period, and the title should be modified to reflect this limitation. Design flows and loads should be established at the following stages of engineering based on multiple years' worth of data.

The design basis for the original 2003 construction have been referenced by CBCL, but not included in the report. These 2003 design values should be included in Table 3.1 for comparative purposes.

Earlier in the report it is stated that carbonaceous biochemical oxygen demand (cBOD) was measured during the 2018 sampling events; however Table 3.1 reports the organic loading in terms of BOD. cBOD excludes oxygen consumption attributed to nitrification activity, while BOD considers all biochemical oxygen requirements; BOD is a five-day test, where a portion of the ammonia is typically nitrified. Using BOD and Ammonia (NH_3) loading for biological treatment design, versus cBOD and ammonia, is potentially double accounting for a portion of the oxygen consumption associated with nitrification. It is recommended that when biological treatment upgrades are being designed, a consistent approach to organics is used.

In the discussion regarding salinity effects on bacteria, a distinction should be made regarding the type of treatment and negative effects (inactivation) on bacteria due to salinity changes. The inactivation versus salinity change data presented is related to observations from activated sludge (suspended bacteria) systems, including MBR; however, biofilm based treatment systems (MBBR and fixed film processes) may have a much higher tolerance to salinity changes, based on observations made with oxidizing chemicals (disinfectants). This should be investigated, because it may suggest that biofilms have an advantage over activated sludge systems (Option 3) in this instance. This can be validated by observing any step changes in effluent cBOD following peak salinity events, and the durations of subsequent recovery periods. It should be noted that routine WWTP performance does not appear to be impacted at the average 3,000 mg/L salinity level. We agree that the Town should investigate areas of the collection system where significant inflow of seawater may be occurring at high tide events.

We are in agreement that salinity will have an effect on polymer performance; however, it is not quantitatively established what the performance impacts are relative to the salinity peaks observed at the WWTP. As part of the DAF assessment process, polymer trials should be conducted to identify salinity threshold levels for DAF performance, and/or alternative polymers that perform better in higher salinity wastewaters.

Low ultraviolet transmittance (UVT) is discussed briefly and the impact of potential industrial discharges. While the data suggests that the typical effluent UVT is well below the existing UV system design value, there appears to be only a limited number (five) of data points taken over a relatively short time span. The Town should monitor UVT on a regular basis to trend how it fluctuates seasonally. It is our understanding that the Town is planning to install additional UV equipment under a separate project; this seasonal data would be beneficial in identifying times where the second bank could be turned off to reduce operational (power) costs. A UVT analyzer can be considered with the procurement of additional UV equipment.

The driver for expansion of the UV disinfection system may be premature, pending potential performance improvements in the operation of the DAF process. Dillon recommends that UV expansion not occur until a new baseline for DAF operation is established following optimization efforts.

In addition to the potential plant upgrades, conformance to applicable Town wastewater bylaws should be strictly enforced going forward. This could include WWTP influent composite (24 hours) or grab samples. During Dillon's site visit surface residue from an unknown substance that was released to the sewer in the summer of 2019 was still visible in some areas of the plant, along with a high level of oil and grease deposits. This further supports the need for a rigorous bylaw enforcement and public awareness.

3.2: Upgrade Options

Elevated corrosion is apparent through a review of the plant's visual physical condition that may be the result of elevated salinity in the wastewater based on the community's proximity to the ocean and salinity data. The corrosion may also be related to historic sulfide levels in the headworks and MBBR buildings that may now be mitigated with enhanced ventilation rates. As instantaneous salinity is difficult/impractical to measure directly, the plant could consider installing a conductivity meter. Conductivity levels can be correlated to salinity concentrations, and if an analyzer is installed it could trend data on how salinity is related to tidal and storm events, and impacting the treatment process. High grade steel, such as 316L, or fiberglass reinforced plastic (FRP) where appropriate could extend equipment lifespans and reduce the impacts of salinity. Materials selection for the Headworks and MBBR areas should be carefully considered for upgrade projects.

Elevated salinity in wastewater is not feasible to treat at the municipal level, and involves either membrane treatment (e.g. reverse osmosis) or evaporation; both of these technologies generate high salinity waste streams, and are not recommended for small communities such as Lunenburg. Unfortunately, salinity can also inhibit biological activity and aeration efficiency, and therefore biological treatment performance, so unless significant improvements in the collection system are planned in the near term (e.g. 5 years), the design basis for treatment plant modifications should reflect this parameter. Based on anticipated climate change patterns, the risk of seawater inflow to the collection system will not go away without sewer upgrades to identify and repair leaks.

It is not known if the materials selected for the original aeration system in 2003 were based on a value engineering approach, with less costly but less corrosion resistant materials selected. If this was the case, then the aeration system piping materials have now reached the end of their normal life expectancy and require replacement.

This situation would have been the same regardless of the treatment process. Typical material selection for the aeration system piping is stainless steel; it appears that a galvanized steel was used for original construction.

CBCL recommends that the plant upgrades/replacement be completed under one project, rather than piecemealing together or completing in phases. While generally accurate and preferred from an overall engineering/life cycle cost approach, this execution is not always feasible for a small municipal entity to undertake without significant provincial/federal funding, which can be intermittent and hard to predict based on elections and political focuses. Furthermore, it is not recommended in situations where one or more components in a system are not performing to expectations and requires a systematic evaluation to determine the prioritization of upgrades; replacement of multiple system components at the same time can result in unnecessary spending.

Option 1: Capital Maintenance of Existing Process

This option includes replacing the floating MBBR media with a Fixed Activated Sludge (FAS) process, and retaining the existing DAF process. Dillon assumes this technology option is IFAS (Integrated fixed film activated sludge process). Additional components of option 1 include:

- Replace the existing influent screen;
- Instrumentation upgrades (air flows, influent salinity, effluent TSS);
- New DAF recirculation pumps;
- DAF optimization by the manufacturer;
- Replace polymer system;
- Add additional UV capacity; and
- New emergency generator.

Based on the ability of the existing MBBR system to meet regulatory limits even with deteriorated media (except for occasional exceedances of cBOD that may be related to operational upsets and/or poor DAF performance), Dillon does not support changing to a new IFAS process, which includes new media modules, aeration piping, valves and diffusers. The IFAS process is a relatively new process that combines aspects of activated sludge and biofilm (fixed film) treatment. The IFAS process can use either fixed-in-place media, or dispersed media (same as MBBR process). The important aspect of the media is to provide adequate surface area for growth of bacteria biofilm; this is the same principle as the existing MBBR process. The IFAS process has been used to increase treatment capacity at existing conventional activated sludge (CAS) plants, but less commonly used for new-build facilities. IFAS conversions also allow increased nitrification/denitrification performance when existing plants have effluent ammonia or total nitrogen limitations.

The existing MBBR floating media is still achieving performance targets, and supports the same biofilm as a new IFAS process would. Although worn media may be a concern aesthetically, treatment performance should be the primary performance indicator. We feel it is much less costly to replace a portion of the MBBR media annually in order to maintain a target biofilm surface area. Essentially, media attrition becomes an operational cost. If the existing 15 year old media still provides adequate biofilm surface area for treatment purposes in its 'worn' state, we disagree that the MBBR process should be replaced with the IFAS process, which is operationally more complex compared to the MBBR process.

A new IFAS process will have similar operational issues as the existing MBBR process, particularly with respect to the DAF process. If the DAF process is not upgraded as a component of this FAS option, then it is not considered feasible. Therefore, improving DAF performance should be the priority activity related to this option. If DAF operation cannot be improved, then this option should not be considered further.

An alternative to this option is to consider upgrading the existing MBBR media to one that is more commonly used in the wastewater industry currently. At the time when the Lunenburg WWTP was designed, the original Kaldnes MBBR system, including their media, was likely still under patent protection. Variants of the Kaldnes media, which is much smaller and has a higher surface area to volume ratio compared to the media used at Lunenburg, is now widely available in the marketplace. Conversion to the smaller Kaldnes-type media would require replacement of the media retention screens with smaller openings; however, it may be possible to achieve MMBR treatment in only one of the two MBBR trains at Lunenburg due to the increased media surface area. This cost for this option may be offset by reduced operational costs. The Kaldnes media is also more robust than the media currently used in Lunenburg; original MBBR plants are still operational after 30 years using the original media. This topic will be discussed further under 'Option 2'.

Replacement of the existing influent screen at this time should be considered on its own merits, and not included in any of the upgrade options. Capital versus operational costs should be considered relative to screen improvements. We also recommend that the screen manufacturer be brought to site to inspect the unit, and provide recommendations for maintenance repairs or upgrades that may extend life expectancy. The screen has a life expectancy of 20+ years depending on maintenance, so planned replacement around 2023 is not unrealistic based on an asset management planning approach. If government funding is available on a cost-sharing basis, then screen replacement or upgrade may be justified based on remaining life expectancy.

Dillon agrees with the recommended instrumentation upgrades. However, consideration should be made to exclude the air flow measurements, and instead use daily dissolved oxygen readings for process control.

We recommend that the replacement of the DAF recirculation pumps and polymer system be considered as part of the overall DAF performance assessment by the manufacturer.

Installation of additional UV disinfection capacity should be deferred until DAF performance is optimized. If effluent UVT improves, then the need for additional UV capacity may go away.

Addition of a new emergency generator should first be discussed with the Province, to determine if this will be a regulatory requirement. This decision should be based on the reliability of the electrical grid feeding the WWTP, frequency and duration of outages, regulatory drivers, and cost-benefit.

Option 2: Improve the Existing (MBBR/DAF) System

This option includes upgrading the existing MBBR system with new compact Kaldnes-type media, and replacement of the DAF units. Additional components of option 2 include:

- Replace the existing influent screen;
- Instrumentation upgrades (air flows, influent salinity, effluent TSS);
- Add additional UV capacity; and
- New emergency generator.

This option will require a similar upgrade of the deteriorating aeration system piping, valves, and diffusers as compared to Option 1. An additional required modification will be the replacement of media retaining screens in the MBBR tanks with smaller screen openings to retain the new smaller MBBR media. This option also includes an outright replacement of the DAF units, without additional investigation into the costs to improve the performance similar to Option 1.

Dillon does not support replacing the existing MBBR media with the smaller Kaldnes-type media. The existing MBBR system and media appears to be routinely meeting effluent performance with respect to organics removal, and does not justify a wholesale media change. However, as discussed in the last section, there may be a cost-benefit to media change if one of the two existing MBBR treatment trains can be eliminated. This would mean the aeration system in only one train requires replacement, which represents a potential cost savings. This could also provide operating cost savings.

Dillon does not recommend the replacement of the existing DAF units without first determining whether or not it is feasible for modifications to improve their performance. Investigating the performance issues with the DAF process and

potential solutions should be the number one priority to realize maximum benefit of this existing asset.

In Dillon's opinion and experience with the MBBR process, the DAF performance in Lunenburg is questionable and should be further investigated. Successful operation of the DAF unit is critical to overall MBBR system operations. Batch operation and associated high flows to the DAF may be creating disruptive flow patterns that cause turbulence and short-circuiting, which impact DAF separation performance. This issue potentially correlates to the observation of micro bubble, suspended solids and polymer carryover in the DAF effluent. We understand that batch operation and the associated high flow rate was established to maintain a target operating level in the DAF for operational reasons; however, DAF modifications to allow continuous operation under variable flow conditions should be investigated with the manufacturer. It is likely that modifications to the existing units will increase their performance, and overall reliability of the WWTP effluent quality.

On the day of the Dillon site visit, we observed that only one DAF units was operating, with significant turbulence. It is not known if there is a reason for running the DAFs as alternating duty/standby service, but these units should be operating in parallel if possible to reduce the hydraulic loading rate to any one unit. We also noted that there is a 'Continuous – Operation' selector in the plant PLC for the DAF; however, this mode is likely not used based on the above discussion regarding maintaining an optimal high flow in the DAF for operational purposes. Ideal operating conditions for the DAF units include continuous flow, with both units operating in parallel to maximize residence time for separation efficiency.

Inadequate mixing of the polymer prior to entering the DAF could also be contributing to performance issues. An inline mixer, pipe flocculator or mixing tank immediately upstream of the DAF could improve performance at relatively minimal capital cost. Options for integrated upstream polymer mixing can be discussed with the DAF manufacturer.

During our site visit the plant's operator indicated that polymer jar testing for the DAF had recently been completed by a third party. As the polymer dosage is primarily based on flow to the DAF, the impacts of solids loading should also be considered. At a plant this size, jar testing should be completed by operators at a minimum of once per month, ideally weekly. Some industrial plants perform jar tests multiple times a week to optimize polymer dose and reduce operational costs. Dillon recommends that additional polymer trials be conducted, that include salinity as a variable. Seawater can be added to the secondary effluent samples to simulate varying degrees of seawater intrusion that is being observed in the collection system. This testing will allow the operating team to make informed decisions regarding polymer selection and dose versus salinity level. This testing may also identify alternate polymer products that offer improved performance over a broader salinity range. This work is

strongly recommended to improve DAF performance, particularly with the increased risk that climate change will increase the frequency of seawater intrusion events in the collection system.

Replacement of the existing influent screen at this time should be considered on its own merits, and not necessarily included in any of the upgrade options. Capital versus operational costs should be considered relative to screen improvements. We also recommend that the screen manufacturer be brought to site to inspect the unit, and provide recommendations for maintenance repairs or upgrades that may extend life expectancy. The screen has a life expectancy of 20+ years depending on maintenance, so planned replacement around 2023 is not unrealistic based on an asset management planning approach. If government funding is available on a cost-sharing basis, then screen replacement or upgrade may be justified based on remaining life expectancy, which will be discussed in a later section of this report.

As stated above, Dillon agrees with the recommended instrumentation upgrades. However, consideration should be made to exclude the air flow measurements, and instead use daily dissolved oxygen readings for process control.

Installation of additional UV disinfection capacity should be deferred until DAF performance is optimized. If effluent UVT improves, then the need for additional UV capacity may go away. However, if government funding is available on a cost-sharing basis, then this upgrade may be justified from an economic perspective. The presence of residual bubbles from the poorly-functioning DAF may also be contributing to UVT issues; the presence of these bubbles can scatter light, reducing disinfection efficacy.

Similar to option 1, the addition of a new emergency generator should first be discussed with the Province, to determine if this will be a regulatory requirement. This decision should be based on the reliability of the electrical grid feeding the WWTP, frequency and duration of outages, regulatory drivers, and cost-benefit.

Option 3: Replace with MBR Process

This option includes replacing the existing MBBR system with a new membrane bioreactor (MBR) treatment system. This process would reuse the existing MBBR tankage in addition to new tankage to house the MBR equipment. We agree that this option will provide a high quality effluent that will reliably meet all regulatory limits, and reduce the risk of outfall episodes. With the MBR system, the existing DAF system would no longer be required. Additional components of option 3 include:

- Replace the existing influent screen;
- Instrumentation upgrades (air flows, influent salinity, effluent TSS);
- New drum screen for the MBR system;
- Add additional UV capacity; and
- New emergency generator.

MBR is a proven process with high quality effluent results, and is typically used for water re-use applications (e.g. irrigation water). The membranes provide very fine filtration of the effluent, effectively removing most suspended solids. However, MBRs have a high lifecycle cost relative to other options and requires a higher level of operator attention compared to the existing plant process. In addition, the membranes can be susceptible to foulants in the wastewater that can damage the membrane material. The operations staff noted an event in 2019 where an unknown paint-like substance passed through the WWTP, coating surfaces. An event like this could severely upset an MBR system, with potential costly replacement of the membranes required.

In addition, Dillon observed significant oil and grease through the WWTP, which can result in increased operational costs associated with chemical cleaning frequency of the membranes. If this option is selected, the Town will need to evaluate sewer bylaw enforcement and community outreach so risks of illegal dumping and oil and grease trap maintenance are well understood.

The MBR building will require dedicated air handling systems and odour control; it may be possible to connect this to the existing biofiliter, but it is unclear if it has capacity.

Dillon does not recommend proceeding with this option at this time, until effort has been made to optimize the existing MBBR and DAF systems, as discussed in the previous sections. This option represents a high capital and operating cost scenario, which may be difficult for the Town to accommodate.

Replacement of the existing influent screen at this time should be considered on its own merits, and not necessarily included in any of the upgrade options. Capital versus operational costs should be considered relative to screen improvements. We also recommend that the screen manufacturer be brought to site to inspect the unit, and provide recommendations for maintenance repairs or upgrades that may extend life expectancy. The screen has a life expectancy of 20+ years depending on maintenance, so planned replacement around 2023 is not unrealistic based on an asset management planning approach. If government funding is available on a cost-sharing basis, then screen replacement or upgrade may be justified based on remaining life expectancy, which will be discussed in a later section of this report.

Dillon agrees with the recommended instrumentation upgrades. However, consideration should be made to exclude the air flow measurements, and instead use daily dissolved oxygen readings for process control.

Installation of additional UV disinfection capacity should be deferred until DAF performance is optimized. If effluent UVT improves, then the need for additional UV capacity may go away. However, if government funding is available on a cost-sharing basis, then this upgrade may be justified from an economic perspective. Additional

UV disinfection capacity should be deferred until new DAF unit performance is validated, or existing DAF system performance is optimized. If effluent UVT improves, then the need for additional UV capacity may go away. The presence of residual bubbles from the poorly-functioning DAF may also be contributing to UVT issues; the presence of these bubbles can scatter light, reducing disinfection efficacy.

Addition of a new emergency generator should first be discussed with the Province, to determine if this will be a regulatory requirement. This decision should be based on the reliability of the electrical grid feeding the WWTP, frequency and duration of outages, regulatory drivers, and cost-benefit.

Supplemental Option A: Extend Existing Outfall

The existing outfall location under Fisherman's Wharf is a non-ideal location given the plant's history with process upsets, poor apparent mixing, proximity to public use and media coverage. Extending the outfall beyond public view will also improve mixing and reduce the public health risk associated with effluent contact.

Dillon views this option as one of the highest priorities for the Town. All WWTPs have upsets from time-to-time, and having the effluent discharge in clear view of the public with minimal mixing is not ideal. The current situation with polymer carryover is an example where the public can observe visual clues and assume a worst case scenario. The media is typically very quick to report on issues and perceptions, which generates mistrust of the Town's operations, which is not desirable. Even if the Town can successfully optimize the existing MBBR process and reliability to improve effluent quality, we still recommend relocating the outfall to a more suitable location in the harbor.

Chapter 4: Cost Estimates

In making capital decisions, the Town should be fully aware of the level of estimate completed. CBCL refers to their estimate as "Class D", which appears appropriate given the level of engineering described in their report. However, this level of estimate is, by definition, at best accurate to ±30% for complex engineering projects such as retrofits like this, depending on the level of engineering design completed. When evaluating and making decisions at the conceptual stage, the upper range of the estimate accuracy should be used for whichever option is selected to avoid project funding issues during implementation.

Background information/details related to the development of CBCL's cost estimates were not provided, so our commentary focuses around our professional judgement, capital work on previous plants and the cost presented in 4.1, 4.2 and 4.33.

The three contingencies (design development, construction and engineering) presented are appropriate for this stage of engineering. In some cases for more

complex projects the construction contingency may be increased to 15%; likewise for the engineering allowance, especially if in-depth background studies or full-time construction inspection are required.

Installation costs appear to be based as a percentage of equipment costs, which is standard practice for this level of project. The general mechanical & electrical allowances appear suitable for new construction, however retrofits are typically more expensive. The percentage factors for these items should be reviewed and possibly increased by 5-15%.

CAPITAL COST ESTIMATES

Option 1: Capital Maintenance of Existing Process

It is unclear from the report what the $69,000 Site Works cost is for. All of the work, with the exception of the new generator, appear to be inside the existing plant.

As discussed in this report, we do not feel that replacing the MBBR media with a fixed in place media is warranted, and the associated cost should be utilized towards MBBR media top-up instead.

Option 2: Improve the Existing System

It is unclear from the report what the $177,000 Site Works cost is for, since the work will be contained within the existing plant building and tanks. The equipment costs and associated M&E allowances appear suitable for a full MBBR media and DAF replacement. However as discussed previously, a full DAF replacement may not be required.

Option 3: Replace with MBR Process

Due to the high quality effluent produced by an MBR, the additional UV bank may not be required under this option. However, it is understood that the UV upgrade may proceed ahead of any major plant project, and hence why it was considered under this option as well.

MBR equipment costs can vary dramatically based on the supplier, quality and type (flat plate versus hollow fibre). Acknowledging the legacy issues surrounding the topic of wastewater treatment in the Town, we would recommend that if Option 3 is pursued, a high quality product be purchased. Based on our historical work, the equipment costs for such an MBR product this scale may be as much as double the $2M allowance currently budgeted. This will have a trickledown effect and increase the subsequent construction and design related costs. However, if the Town is willing

to procure a system from a smaller manufacturer, and CBCL has based their estimates on vendor quotations, the estimated process equipment costs are reasonable.

Supplemental Option A: Extend Existing Outfall

No drawing was provided by CBCL as part of this option, however ABL Environmental completed a study in 2014 that considered outfall extension options. This section of the CBCL report seems to build on the ABL work, and notes that it is based on 920 m of 400 mm ⌀ HDPE pipe placed along the bottom of the harbor. This equates to approximately $1,200/m for installed outfall piping. CBCL acknowledges that this option was only evaluated at a high level, so it is recommended that this estimate not be considered a "Class D" level of estimate and carry an even higher cost safety factor. For outfall installation, especially in populated waters such as Lunenburg's, it can often be as high as $2,500 – $5,000/m.

As noted in the CBCL report, the outfall cost estimate does not include pumping upgrades that may be required to manage the additional headloss associated with the outfall extension, or what onshore outfall piping modifications may be required.

Regulatory assistance requirements with in-water work are often extensive, and may require an updated Environmental Risk Assessment.

Under the assumption of ABL's Option 3 (longest extension) and our previous experience, Dillon recommends that a minimum of $3,000,000 plus HST should be budgeted for design, permitting and construction of an outfall extension at this stage until detailed engineering and more accurate cost estimates can be completed.

OPERATIONAL COST ESTIMATES

Background information from current operations (e.g. chemicals, labour, parts and equipment, and power) was not presented in the CBCL report, so each option in Table 4.2 was reviewed for general accuracy based on the breakdown provided. The total current annual operational costs is understood to be $438,000. Options 1 and 2 appear adequately costed at this preliminary stage.

The operational cost for Option 3 appears low in our opinion. Additional chemicals to clean and maintain the MBR will be required, and the $3,000 current allowance is too low. We assume that the power consumption was based on a calculation of motor sizes and run times, however we would expect for an MBR plant of this size with new air scour blowers and membrane feed/vacuum pumps that costs will exceed the $241,000 allowance for power (increase of $42K over current operations). It is not clear how the operating costs cover membrane replacement, which is expected approximately once every 7 years.

Dillon recommends an annual allowance be included under each item for routine capital investment. This is typically 1% of the major equipment capital cost. It is not clear if this has been included under the category 'Supplies/Equipment/Parts'.

LIFECYCLE COST ESTIMATES

The approach used by CBCL for lifecycle costs is consistent with industry standards. The dollar values that input into the calculation could be modified as discussed previously, which would impact the LCC per option. This has the possibility of increasing the overall Net Present Value (NPV) of Option 3 above the $16M presented.

The report suggests that the capital costs be inflated 3% per annum for each year the project is delayed beyond 2019. This is representative of typical increases in construction costs year-year, but does not account for the larger price increase in construction projects associated with government funding cycles. Due to the amount of capital projects during these years, contractor resources become limited and tendered bids can increase significantly as a result. If the majority of this project is to be federally funded, the capital estimates should be increased, or a contingency added, to reflect this potential market risks.

An allowance should also be included for major capital overhaul under each option. This depends on the type of equipment, but typically occurs around years 10-15. Typically this value is 20% of the major equipment capital cost. The MBR option (#3) will require complete replacement of membranes, typically every 7 years, depending on how they are maintained. The CBCL report does not specifically identify this cost in Table 4.2. However, over a 25-year life cycle analysis, 3 membrane replacement events should be considered at years 7, 14 and 21.

Chapter 5: Scoring of Options

The method utilized by CBCL is a common way of evaluating non-financial factors. It can be somewhat subjective, and as such is best used to eliminate options to create a shortlist rather than identify the preferred path, unless the rating discrepancy is significant. Dillon normally recommends that clients participate directly in the development of scoring methodology, including topics and their weighting.

Table 5-1 Scoring of Options

When using this method of scoring, it is also typical to have a "Very Poor" (1) and "Excellent" (5) rating for each factor, unless it is qualitative. "Operation's Cost" factor is a quantitative attribute, of which Option 3 should be a 1. Option 3 also received a very high rating for ease of operations, however MBRs can be quite complex to operate and require increased maintenance associated with chemical cleaning.

Option 3 also scored higher than Option 2 on Ease of Implementation, presumably because of the ability to operate the existing process while the new MBR building is built. However, if Option 2 is selected it could also be completed in a similar fashion as each of the main processes have two trains. There would be a risk to effluent quality should this main train experience issues during construction, but if Option 2 is selected it would be a relatively short duration upset.

Process performance is critical to wastewater operations; however, this table does not directly take into account risk to the public. Under an outfall extension scenario, any process performance upsets with visible aesthetic changes will be largely mitigated by distance from the outfall to public receptors, and improved mixing/dilution. There would still be a need to maintain effluent quality with respect to Provincial requirements, but this would be regulatory driven rather than publically perception.

Table 5-2 Weighted Scoring of Options

The weighting related to Operations Cost and Capital Cost should be reviewed against the funding method for the project. Under federal programs where the municipality pays a relatively small (e.g. 30%) portion of the capital cost, it may be in the Town's interest to select an option that has a lower operational cost but carries a higher capital cost. These scenarios could be explored further by incorporating a capital discount value to each option.

General Discussion

The CBCL report provides three potential options for the Town of Lunenburg related to improving operations at the WWTP. These options include a mix of comprehensive upgrades, with associated capital expenditures, that may not be prioritized to meet the Town's economic situation. The approach of comparing three options is commonly applied by engineering consultants to compare technology alternatives; however, it is not always the best approach where an existing process has operational challenges, which could be resolved/improved by more aggressive operational troubleshooting and relatively low cost modifications.

Options 1 and 2 in the CBCL both include variants on improving the existing MBBR system, including replacement of the current MBBR media with either fixed media or new smaller MBBR media, and either optimizing or replacing the existing DAF process. Rather than have only two options to assess, Dillon recommends that the Town implement a decision-making tool that can be used to guide the Town through the process of upgrades to improve plant operations.

Dillon has identified the DAF process as the key priority for improving performance of the existing MBBR plant, and recommends that troubleshooting efforts initially focus on DAF improvements through operational changes and/or modification coordinated with the DAF manufacturer. In this case, a progressive approach to WWTP evaluation and modifications may provide best value for the Town, and maximize reuse of existing assets.

Dillon has prepared an example of a decision-making flow chart in Figure 1 to show how engineering activities can be prioritized in a plan to realize improved treatment performance. We feel that the current MBBR/DAF process, which is approximately 15 years old, still has significant residual asset value for the Town; replacing the MBBR with a new and expensive process (Option 3) should be deferred until improvements to the DAF system are fully explored. If upgrades to the existing DAF units is not feasible, then Option 3 should be compared to DAF replacement with new units capable of operation under continuous flow conditions, which should still be a lower-cost alternative. Since the MBBR process still appears to achieve performance objectives, we do not feel that changing to a different media type (IFAS or smaller MBBR media) should be considered unless there are clear financial drivers. An annual addition of MBBR media to account for media wear and attrition should be considered.

Dillon also recommends that the Town prioritize the extension of the existing outfall from the current location, as previously explored by the Town. The WWTP plant will at risk of occasional performance upsets regardless of the treatment process, and the residents and media now have a heightened awareness of the outfall location.

The Town should also monitor any potential regulatory changes (such as more stringent nutrient limits). MBBR technology can be adjusted through the addition of more air, media and (if necessary) reactor tanks to reduce TKN, and TP through the addition of chemical precipitation. Dillon noted that the amount of media in the existing MBBR reactor appears to be relatively low; additional treatment capacity, including nitrification, could be achieved with increased media content.

If there is concern at the political level that the MBBR process has an associated high risk to the Town in the future, then we suggest that Town representatives visit one or more municipalities where MBBR is used successfully, to evaluate if an upgraded and well-run MBBR process will meet Town expectations.

Additional upgrades have been included in all CBCL Options, which Dillon has separated in Figure 1 under the title: 'Maintenance' and 'Optional'. Maintenance-related activities are considered to be required if the WWTP system was operating as expected and had a long remaining life. This includes safety related upgrades, aeration system piping upgrades, MBBR media top-up, and influent screen maintenance. These maintenance items should be planned as an operational cost.

However, depending on funding opportunities, it may be worthwhile for the Town to perform these upgrades with a capital project.

If the Town wishes to develop costs that reflect Dillon commentary in this report, it would be a modification of Option 1; This Option will be referred to as Option 4. This option would involve the following key components related to plant operation:

- Retaining and topping up the existing MBBR media;
- Replacing the aeration system piping;
- DAF operational assessment, including polymer salinity trials;
- DAF upgrades, or new DAF units;
- UV upgrade if required following DAF upgrades; and
- Outfall extension.

Under Option 4, the influent screen replacement is a decision that the Town must make based on economics, including an assessment of operational costs, existing condition and remaining life expectancy. Similarly, including the emergency generator and enhanced instrumentation should be decided on a cost benefit approach. If funding is available to the Town, procurement of additional spare MBBR media can be considered for future years.

The costs presented are generally appropriate for this conceptual stage of engineering; however, Dillon recommends increasing several of the operational and capital costs. We have also provided estimating qualifications so that the Town fully understands the level of accuracy and upper ranges of the current estimates. Full project endorsement should not be given to a large capital investment until a more refined estimate and associated design is completed, in order to help the Town best execute a project. In our opinion, there is still significant asset value in the existing plant systems and the Town's objectives can be met following a more phased approach to system evaluation and decision making rather than complete plant overhaul as a single project scope.

Dillon Recommendations and Next Steps

The following course of action is recommended for consideration by the Town:

1. Identify WWTP upgrades that are associated with worker safety (e.g. grating, handrails, air quality). Consider a H_2S sensor/alarm in the headworks building;
2. Proceed with next engineering steps and initiate regulatory discussion for outfall extension;
3. Perform microscopic examination of MBBR reactors to determine if filamentous bacteria are present;
4. Replace MBBR aeration system. Consideration should be given to material selection, life expectancy, and life cycle cost. Estimate media volume when tanks are drained;
5. Top up MBBR media;

6. Engage Suez (DAF manufacturer) to explore options to improve DAF performance. This will include costing of modifications as well as the cost of new DAF units;
7. Perform regular polymer trials as part of DAF optimization. Testing should include an evaluation of salinity effects and limitations for different chemical products;
8. Based on DAF study, proceed with DAF modifications, or consider new DAF units;
9. Evaluate adding capacity of UV disinfection following DAF optimization, when a new baseline for plant UVT is established;
10. Assess optional instrumentation upgrades using a cost-benefit approach. Consider the likelihood of whether the operations' team will use the additional data for operational optimization, operational cost savings, or risk reduction;
11. Rigorous testing and enforcement of sewer bylaw, coupled with a public awareness program;
12. Continue to collect influent, effluent and flow data to better support future operations and design effort; and
13. Implement or increase annual capital maintenance budgeting to account for more routine "wear and tear" upkeep.

The Town can add an additional option (Option 4) for cost estimating. Option 4, as discussed in this report, represents the low cost alternative to improving WWTP performance with maximum reuse of existing plant assets. Option 4 includes extension of the outfall, which is not included in the CBCL options; however, Dillon recommends outfall extension for all upgrade options.

Closing

We trust this information meets your requirements. If you have any questions regarding this report, please contact the undersigned at your convenience.

Yours truly,

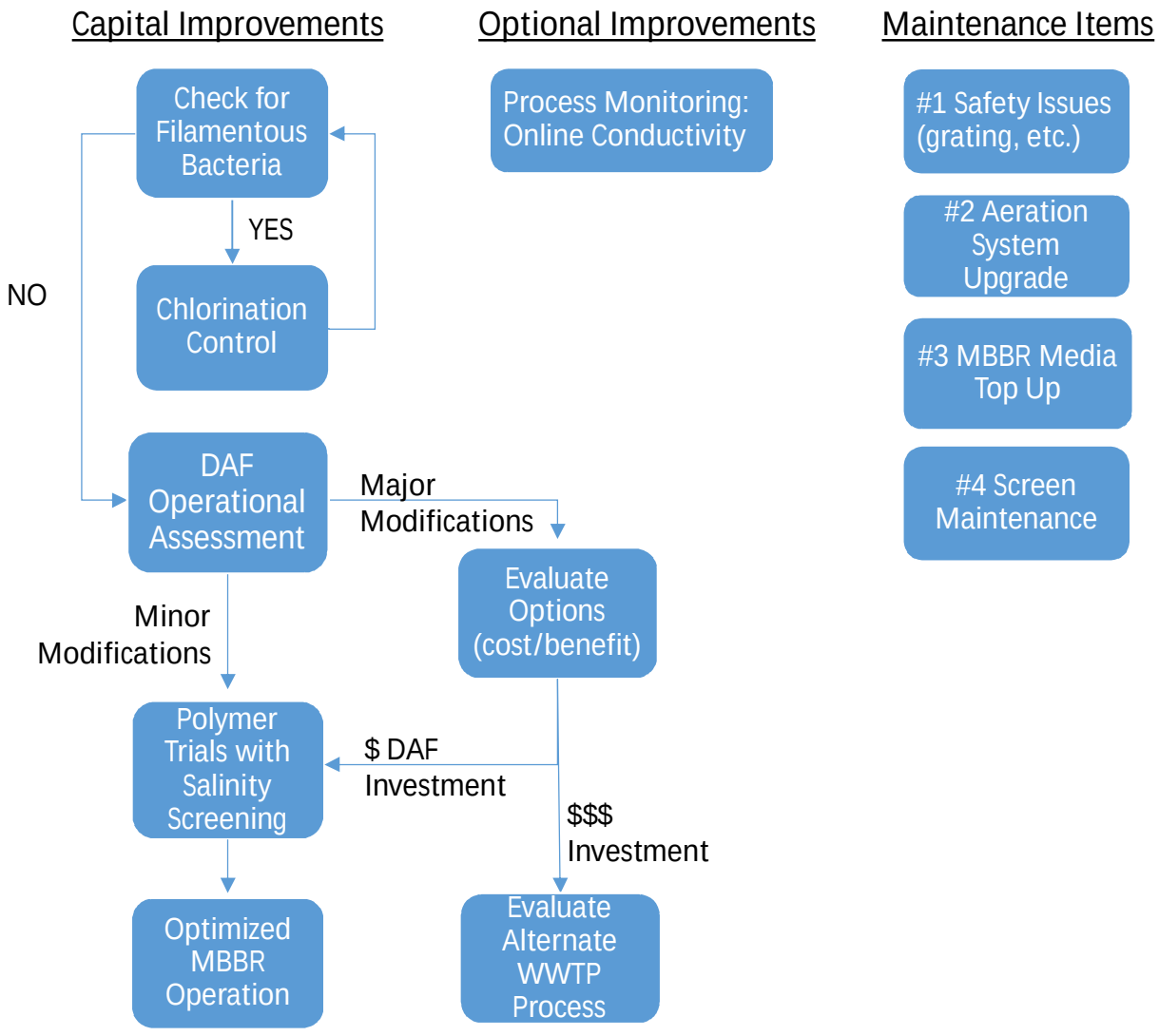
DILLON CONSULTING LIMITED

Dave McKenna, M.Eng., P.Eng.
Wastewater Engineering Technical Lead

Kyle MacIntyre, P.Eng.
Water/Wastewater Engineer

KRM:jes
Our File: 19-1650-1000

Figure 1: Decision Flow Chart



Schedule "H"

Splash Pad Project Information Summary
January 10, 2020

Presentations/Reports to Council:

- January 8, 2019 – Lunenburg Community Development Group "Splash Pad Project" presentation
- January 22, 2019 – Splash Pad Proposal: Staff Report
- March 12, 2019 – Splash Pad Proposal: Staff's Feasibility Report
- December 10, 2019 – Splash Pad Project Staff Report and Splash Pad Feasibility Study (Request for Proposals alternative process recommendation)

Draft Milestones/Construction Timeline:

- January 14, 2020 – Council discussion of Splash Pad alternative process for the issuance of a Request for Proposals for design and construction at a pre-selected location
- February 3, 2020 – Provincial grant application deadline to fund up to one-third of the total cost of the project
- January to February 2020 – Staff write Request for Proposal (RFP)
- February to March 2020 – RFP be reviewed by an engineering firm
- March to May 2020 – RFP open for proponents, with a company selected by the end of May; successful proponent could be presented at the May 12 Council meeting
- May to April 2020 – Finalized drawings and plans approved by the Town
- June to July 2020 – Construction
- Grand Opening – Pending above schedule, potential to be ready for July 1, 2020

Review of Operating Costs:

The preliminary estimates that the splash pad would have as an annual operating cost is noted below (from March 7, 2019 Staff Feasibility Report). The Town's Recreation Department would be responsible for the weekly maintenance, operations, start up and shut down of the splash pad. The Public Works Department would be required with the construction of the project to provide water and sewer hookups.

• Water (seasonally 1,086,912 gallon/year)	$4,900
• Power (approximately $100/month for four months)	$400
• Weekly checks (June, July, August and September)	$470*
○ Estimated one hour each at $31.00/hour	
• Start up: Spring (half day by two staff)	$250*
• Shut down: Fall (half day by two staff)	$250*
• Insurance	TBT
	$6,270 + Insurance

*Based on Public Work's charge out rates schedule.

Paul Bracken, Facilities Superintendent
Kelly Cunningham, Recreation Director

Document No: 6
Meeting: Council Dec 10/19
Circulate To:
File:

M E M O R A N D U M

TO: **TOWN COUNCIL**

FROM: **PAUL BRACKEN, FACILITIES SUPERINTENDENT**

DATE: **DECEMBER 5, 2019**

RE: **SPLASH PAD PROJECT**

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1. FACTS

ON March 12th 2019 – SPLASH PAD PROPOSAL: STAFF'S FEASIBILITY REPORT WAS PRESENTED TO COUNCIL.

> *Motion: moved by Councillor Mosher, seconded by Deputy Mayor McGee that the splash pad project commence, contingent on community funding. A Consultant Engineer would be hired through the tender process to further look at the specifics required for a splash pad within the Town. The splash pad is anticipated to be constructed in 2020/21. Motion carried.*

Currently in the 2019/20 capital budget, there is $20,000 approved for "Splash Pad (Detailed Design-Tender)".

After further review and research the utilities and construction are straight forward and do not require an in-depth engineering site review. This would be a simple way to save money on the Towns portion of the project.

Basic Utility Requirements:

Water:
- Standard 1 1/2" to 2" water line with a static water pressure of 35psi to the features. Most areas in Town have at least 50psi of water pressure which is more than enough.

Electrical requirements:
- The Splash pad will require low voltage power to run a control box that provides 24V power to control the valves, turning the features on and off.
- This would only require 120V electrical power.

Sewer requirement:
- Using a flow through system a 6" drain line would be required to drain the water from the splash pad.
- With a flow through system water can be discharged to a pumping station or into the harbor.

- With the right approval and permit discharging the water in the harbor would be the simplest and cheapest method.

In collaboration with the community group Town staff are proposing to write a site specific RFP, rather than tender a multi-site review to an engineering firm as moved at the March 12th Council meeting.

2. ISSUES AND OPTIONS

The TOL will put together the RFP with the functional specification for the facility and have a preferred site selected, 250th park is recommended by Staff and LCDG (Lunenburg Community Development Group).

We would require a consulting engineer to:
- Review the RFP document re: overall engineering inputs to the functional spec, to ensure that the specified utility connections are in alignment with any long term goals and the general terms and conditions. The utility connections are power, water and sewer.
- Review the RFP responses and provide feedback for each response.

Staff have reviewed numerous RPF's from other municipalities across Canada for design specifications, layout, site planning, and construction details. The RFP has become the preferred method of procurement for many municipalities across Canada.

Splash pad locations:
- Staff prepared a feasibility report March 12th for council to review and outlined the different locations.
- After additional review by staff, 250th anniversary park remains as the number one choice location
- Recommended by the Town staff, consulting Town engineer, Fire Chief and LCDG.

Input from Fire Chief
- Likes the center location of the 250th park, agrees this is the best proposed location in Lunenburg.
- Does not see parking as an issue, most of their rentals fall outside of splash pad operation hours.
- Would be happy to allow 2-3 spots as designated accessibility parking.
- Expressed concerns with the foot traffic around the Fire Hall and thought this could be dealt with using good signage and directions.

Option 1:

"Request for Proposal" procurement, using the 250th anniversary park as the location of the splash pad, exact location to be part of the RFP. Town staff to write a RFP including all functional aspects that will be additionally reviewed by a consulting engineer for technical aspects of the project.

Option 2:

Not to move forward with a RFP procurement and hire an engineering firm to write a complete tender package.

3. **FINANCIAL IMPACT *(prepared by Finance Director)***

In the approved 2019/20 Capital Budget $20,000 was included for the Splash Pad Detailed Design & Tender to be funded by Deed Transfer Taxes. Should Council wish to proceed as recommended by staff with Option 1 the engineering review costs should be significantly less than the approved 2019/20 Capital Budget.

The construction of the Splash Pad would then be included in the 2020/21 Capital Budget for Council's approval. As previously discussed the LCDG, with support from Town staff, will apply for grants to fund this project and fundraise from local business and individuals for the balance of the project's capital costs. The Town will assume the operating costs once the capital construction is completed.

3. **STRATEGIC PLAN RELEVANCE**

1D Engaging our citizens
2B Cultivating a positive visitor experience
3B Facilitating and encouraging healthy lifestyle
5A Making best use of Town-Owned buildings and land
5B Continually and strategically maintaining and upgrading community infrastructure

5. **RECOMMENDATION**

Option 1 is recommended by staff:

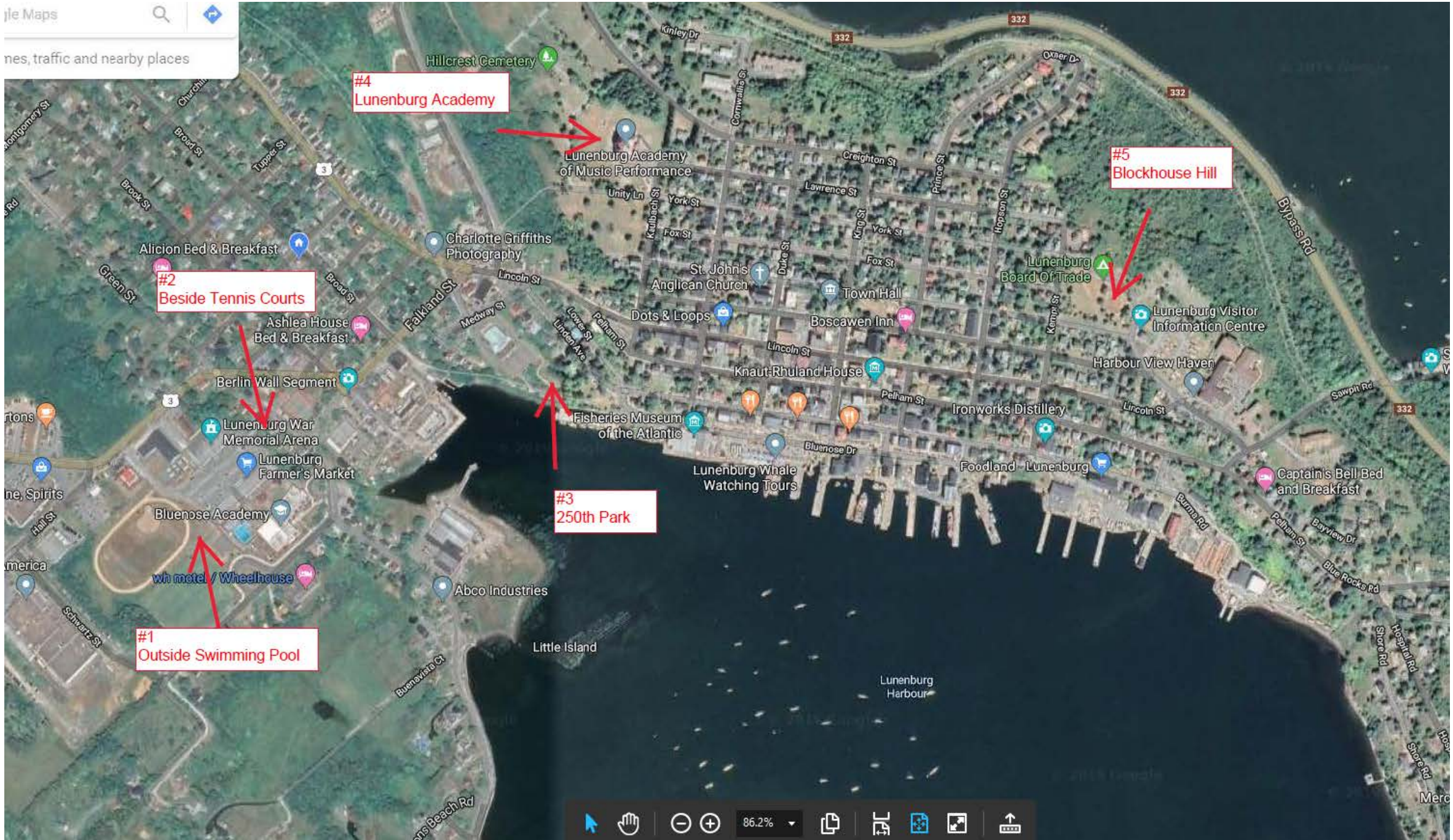
Prepared motion:
Council move proceed with Option 1 – Use a RFP for the procurement of a splash pad with the 250th park as the choice location, splash pad to be built during the 2020/2021 fiscal year pending funding from Lunenburg Community Development Group.

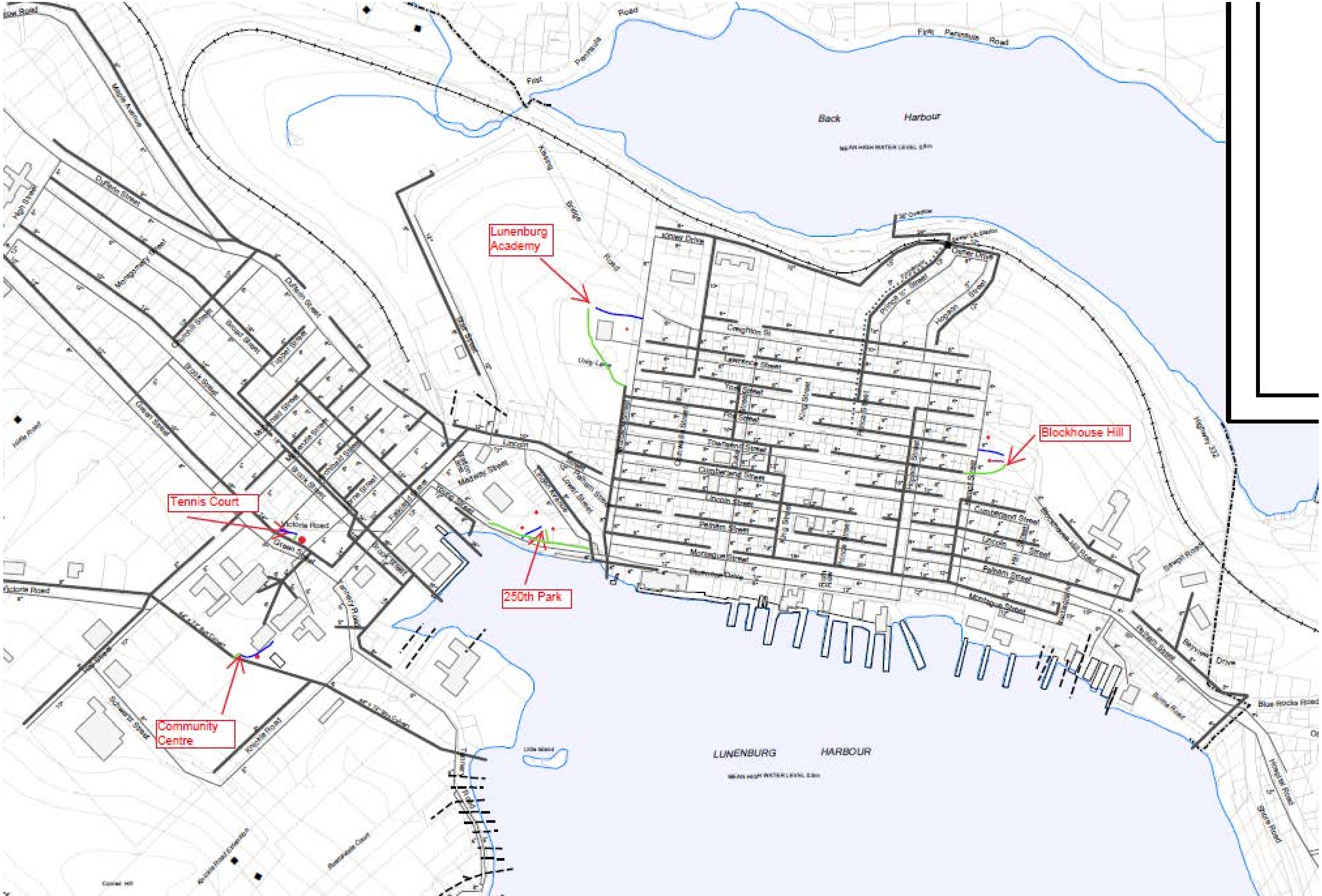
Encl.

_____
Bea Renton
Town Manager/Clerk

Splash Pad Feasibility Study

Town Of Lunenburg

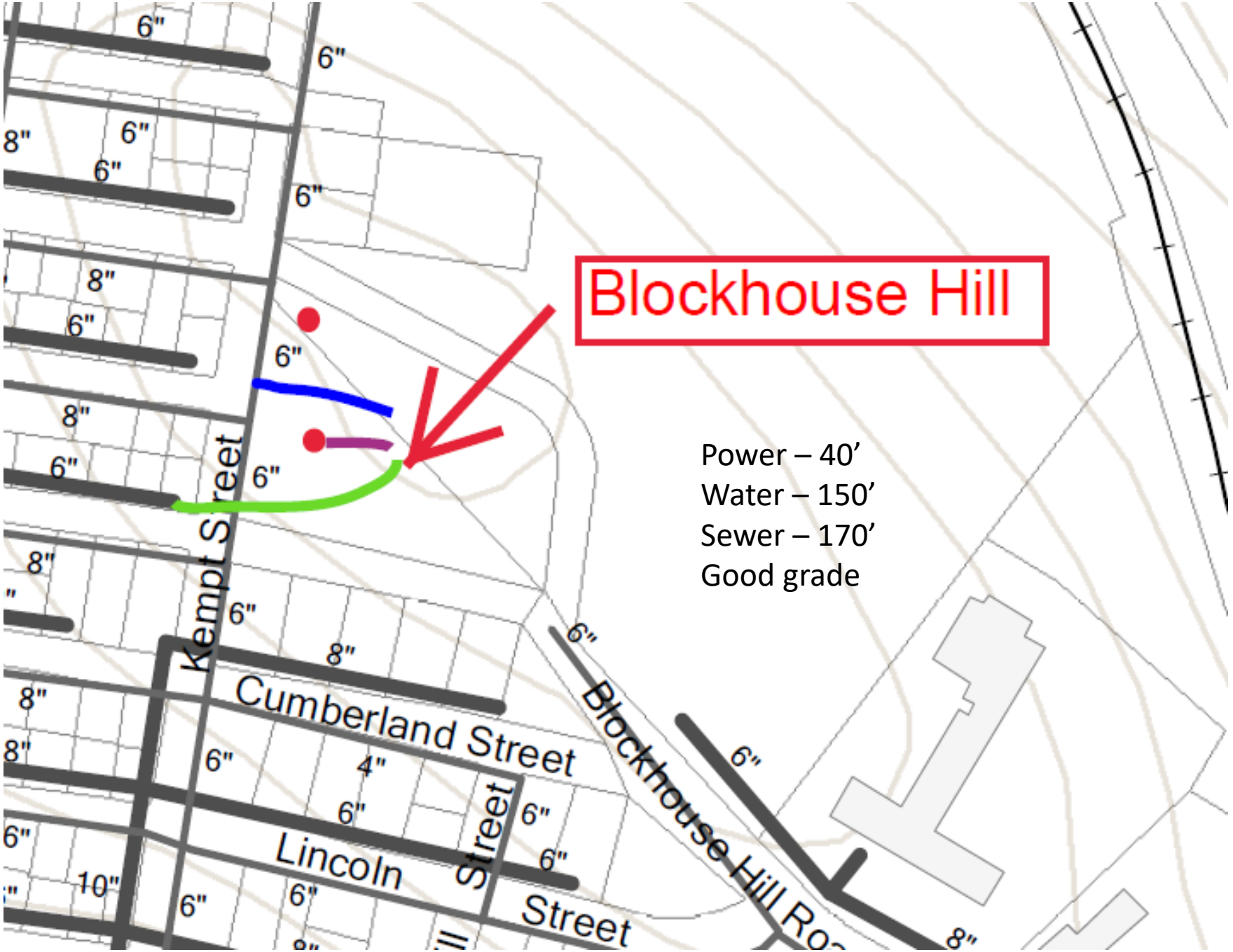

#4
Lunenburg Academy
#5
Blockhouse Hill
#2
Beside Tennis Courts
#3
250th Park
#1
Outside Swimming Pool
Hillcrest Cemetery
Lunenburg Academy of Music Performance
Alicion Bed & Breakfast
Charlotte Griffiths Photography
Ashlea House Bed & Breakfast
Berlin Wall Segment
Lunenburg War Memorial Arena
Lunenburg Farmer's Market
Bluenose Academy
Abco Industries
St. John's Anglican Church
Town Hall
Dots & Loops
Boscawen Inn
Knaut-Rhuland House
Fisheries Museum of the Atlantic
Lunenburg Whale Watching Tours
Lunenburg Board Of Trade
Lunenburg Visitor Information Centre
Harbour View Haven
Ironworks Distillery
Foodland Lunenburg
Captain's Bell Bed and Breakfast
Little Island
Lunenburg Harbour
Falkland St
Lincoln St
Pelham St
Bluenose Dr
Creighton St
Lawrence St
York St
Fox St
Kinley Dr
Bypass Rd
Sawpit Rd
Burma Rd
Bayview Dr
Blue Rocks Rd
Shore Rd
Hospital Rd
86.2%


Back Harbour
Lunenburg Academy
Blockhouse Hill
Tennis Court
250th Park
Community Centre
LUNENBURG HARBOUR
Blue Rocks Road
Victoria Road

Location	250th Park	Tennis Court Location	Lunenburg Academy Grounds	Community Centre site	Blockhouse Hill
Sewer and Water Access					
Geotechnical Factors					
Parking					
Accessibility					
Shade					
Parental viewing/seating					
LCDG Input (1-5)					
Other Factors					
Total (35 Max)					

Scale	Rating	Definitions
5 points	Excellent. Exceptional Much more than acceptable.	Significantly above criteria for successful Surpassed expectations. Meets all major / essential / core criteria or acceptable equivalents and met three or more additional criteria.
4 points	Very Good. Above average.	More than adequate Generally exceeds criteria Meets all of the major / essential / core criteria or acceptable equivalents and several of the minor / additional criteria. No major deficiencies exist in the areas assessed.
3 points	Good. Acceptable. Satisfactory Average	Should be adequate for effective performance. Meets several of the major / essential / core criteria one or two of the minor / additional criteria or acceptable equivalents. Some of the major and minor criteria were met; some deficiencies exist in the areas assessed but none of major concern.
2 points	Weak. Less than Acceptable	Insufficient for performance requirements. Generally does not meet criteria Does not describe / demonstrate a sufficient range criteria appropriate
0 – 1 point	Unacceptable. Poor. Much less than acceptable	Significantly below criteria required Few or no criteria met. Many deficiencies. A major problem exists.

Blockhouse Hill Location


Blockhouse Hill
Power – 40’
Water – 150’
Sewer – 170’
Good grade
Kempt Street
Cumberland Street
Lincoln Street
Blockhouse Hill Ro
6"
8"
4"
10"

Pros, Cons, and Considerations

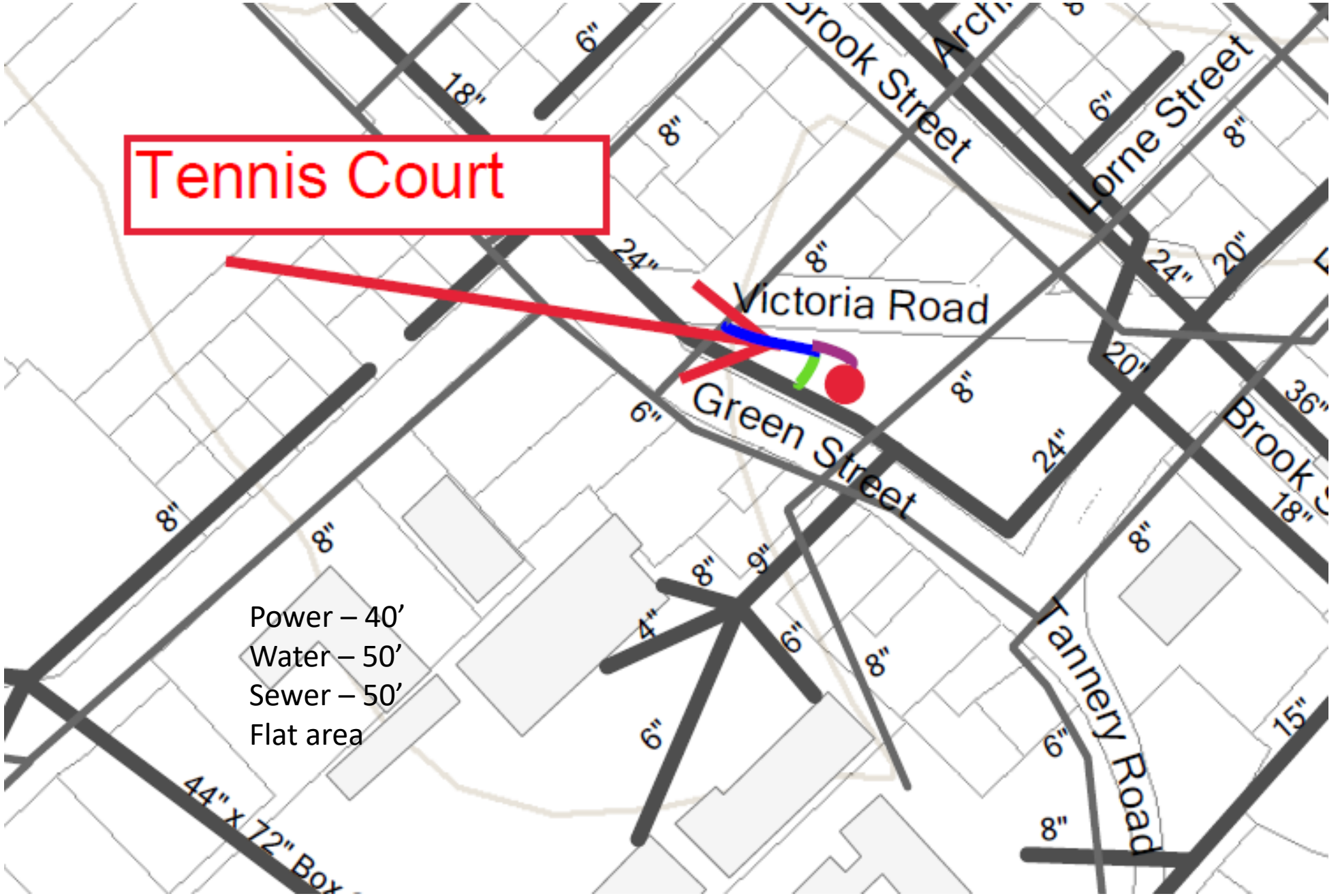
Pros

- Services are close by
- Nice views from the top of the hill
- Park currently underutilized

Cons

- Lower water pressure
- Non central Location
- Park used for festivals
- Limited shade
- No Town owned washrooms

Tennis Court Location


Tennis Court
Victoria Road
Green Street
Lorne Street
Brook Street
Tannery Road
Power – 40’
Water – 50’
Sewer – 50’
Flat area
44" x 72" Box
6"
18"
8"
24"
20"
36"
9"
4"
15"

Pros, Cons, and Considerations

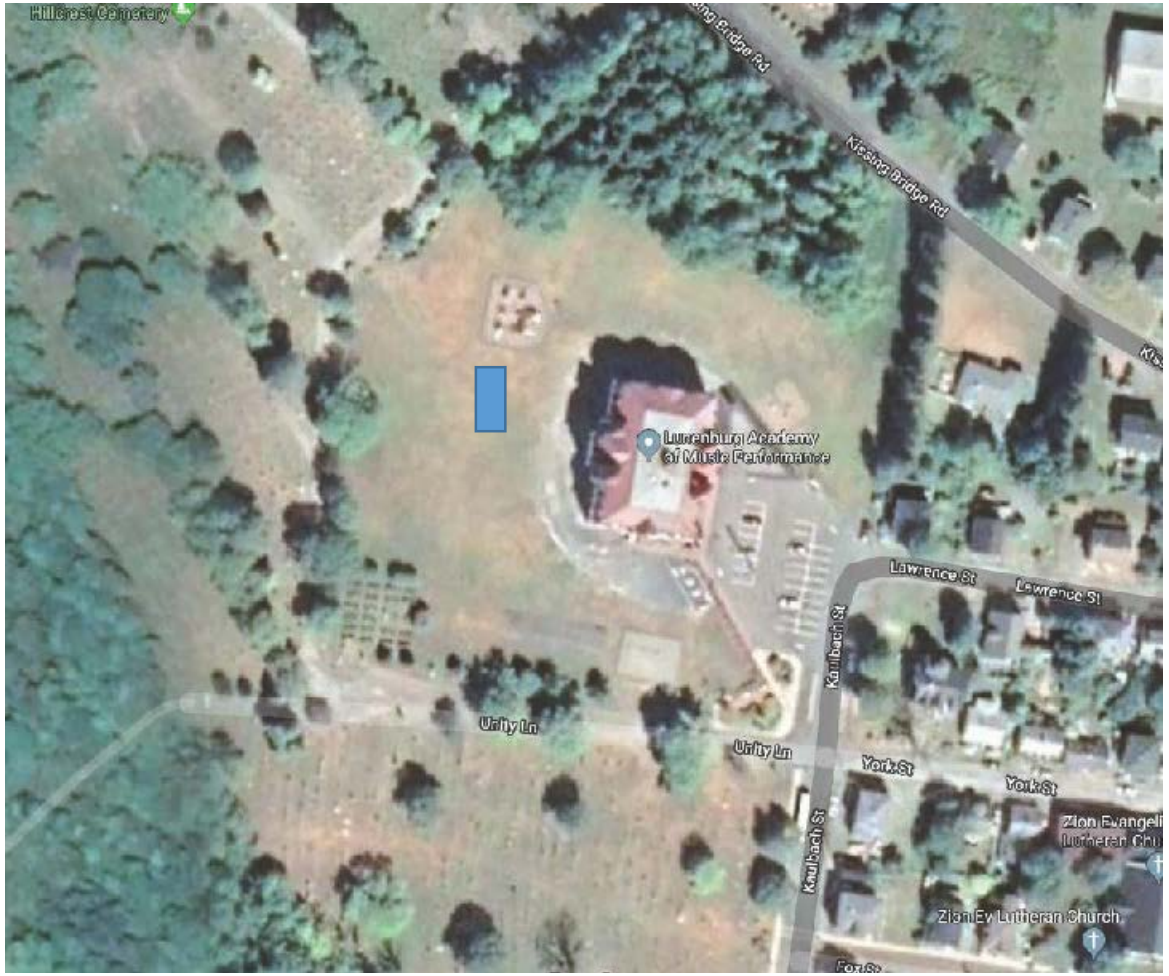
Pros

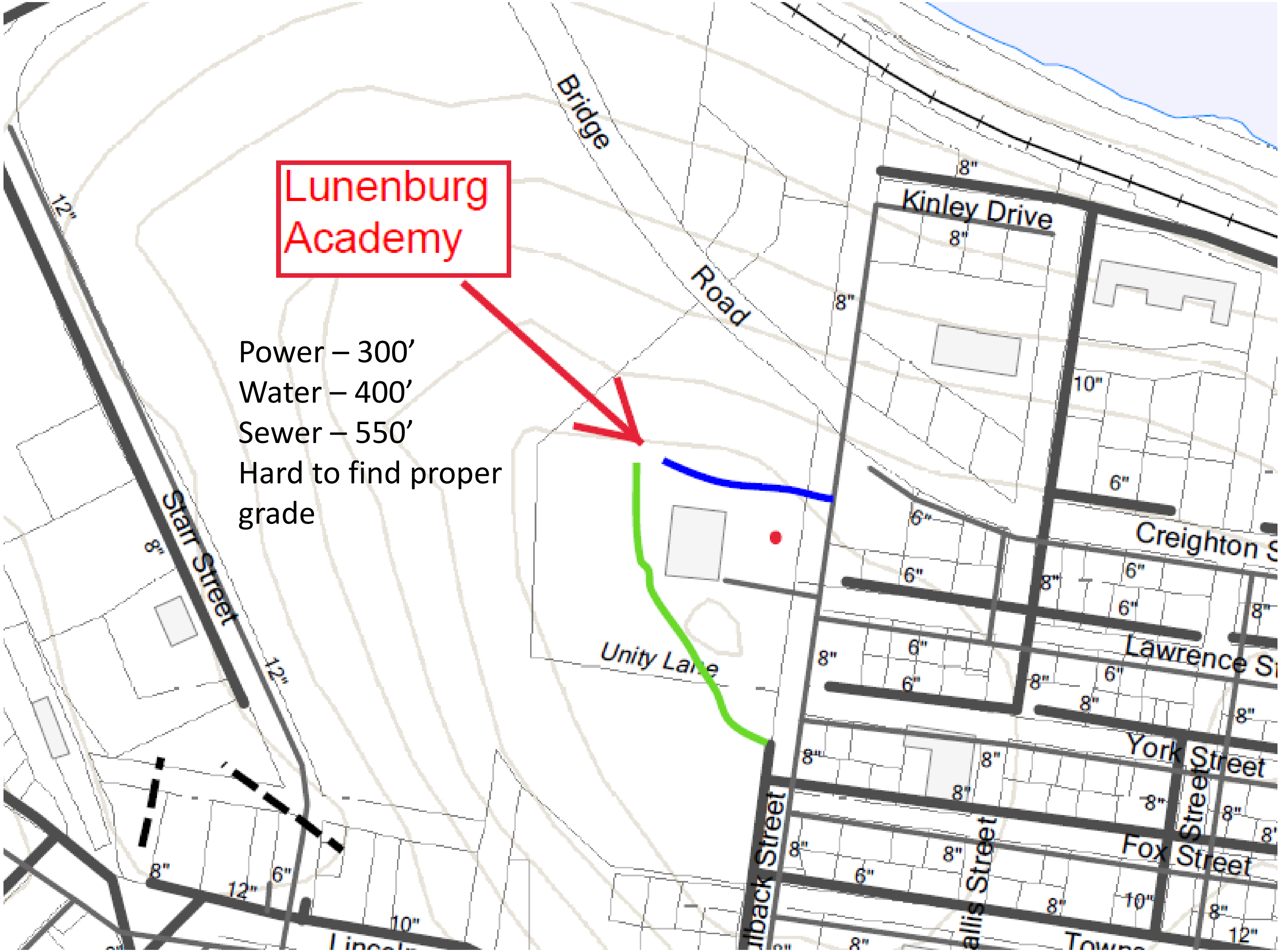
- Services are close by
- Shaded area
- Parking Close by

Cons

- High traffic zone
- Lots of Trees
- Low lying area
- No Town washrooms

Lunenburg Academy Location




Lunenburg Academy
Power – 300’
Water – 400’
Sewer – 550’
Hard to find proper grade
Bridge
Road
Kinley Drive
Starr Street
Unity Lane
Creighton
Lawrence
York Street
Fox Street
Street
12"
8"
6"
10"

LUNENBURG ACADEMY

LOT DEVELOPMENT PLAN

New Features Key

1. Parking for 62 cars
2. Bus drop off
3. Welcome plaza
4. Accessible ramp
5. Cafe terrace
6. Bespoke Lunenburg Academy interpretive signs
7. Pocket park / reading space
8. Garbage enclosure
9. Walking trail
10. Native pollinator planting beds
11. Rain gardens / sustainable urban drainage
12. 20' x 25' Basketball court

Materials Key

- New trees
- Planting bed + seating walls
- Permeable pavers
- Concrete sidewalk
- Asphalt
- Bike racks
- Light standards
- Perspective View

PLAN VIEW

UPLAND

Pros, Cons, and Considerations

Pros

- Open space
- Expanding the Academy's uses

Cons

- Lower water pressure
- Services are far away
- Lot development plan not complete
- Limited parking in summer months
- No shade
- Washrooms?
- Sloped away from sewer
- Fire ants in fields

250th Park


Nova Functional Assessments & Therapy
Lunenburg Fire Dept
The Scenic General Store
Linden Ave
Lincoln St
Pelham St
Kauffach St
Medway St
Lower St
Montague St
Google


Medway Street
Young Street
Linden Avenue
Lower Street
Pelham Street
12"
8"
6"
4"
24"
36"
250th Park
Power – 20’
Water – 35’
Sewer – 260’
Good grade


61 total spaces
3 handicap marked spaces
5 spaces
1 handicap
Firefighter Only
11 spaces
22 spaces
2 handicap
9 spaces
11 spaces
Linden Ave
104%
Google

Pros, Cons, and Considerations

Pros

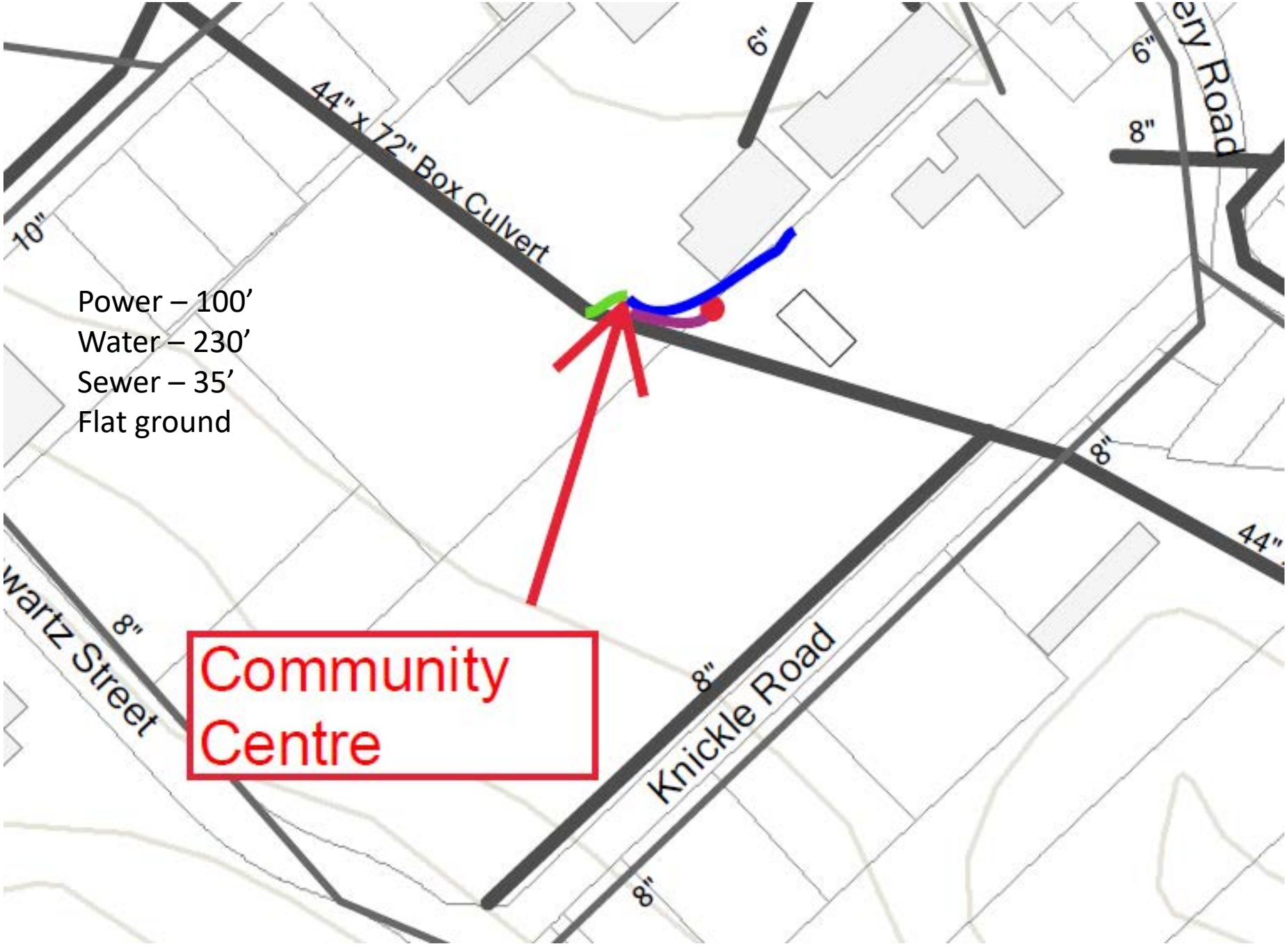
- Services are close with strong water pressure
- Complements existing playground which can be updated with playground reserve funds
- Elevated parental viewing
- Landscaping in place
- Central location between New Town and Old Town
- Public Washrooms close by
- Very accessible
- Good parking
- Potential for easy drainage to harbour or lift station
- Minimal vehicle traffic
- Encourages walking

Cons

- Potential for risk during fire call
- Potential for full parking lot
- Potential overuse of public washrooms
- Requires good signage

Community Centre


POOL
GUS VICKERS MEMORIAL
ATHLETIC FIELD


Power – 100’
Water – 230’
Sewer – 35’
Flat ground
Community Centre
44" x 72" Box Culvert
Knickle Road
Wartz Street
6"
8"
10"
44"

Pros, Cons, and Considerations

Pros

- Close to other recreation services
- large parking lot
- Potential use of Community Centre washroom (only during working hours 8-4 M-F)

Cons

- Take away from swimming pool clients
- Potential flood zone / swampy
- Water service under pavement

	250th Park	Tennis court	Lunenburg Academy	Community Centre	Blockhouse hill
Power	20’	40’	300’	100’	40’
Water	35’	50’	400’	35’	150’
Sewer	260’	50’	550’	100’	170’
Total underground service	280’	90’	850’ or 1,250’	235’	210’
Under Pavement	No	No just normal road cut	Yes, large portion in parking lot and road	Yes large portion in parking lot	Normal road cut

Location	250th Park	Tennis Court Location	Lunenburg Academy Grounds	Community Centre site	Blockhouse Hill
Sewer and Water Access	4	4	2	3	4
Geotechnical Factors	4	3	4	3	4
Parking	3	4	2	5	3
Accessibility	4	4	3	5	3
Shade	5	5	0	0	2
Parental viewing/seating	5	4	4	4	4
LCDG Input (1-5)	5	4	2	3	1
Other Factors		Traffic Zone Washrooms ?	Future Use Water Pressure Washrooms?		Water Pressure Washroom?
Total (35 Max)	30	28	17	23	17

Scale	Rating	Definitions
5 points	Excellent. Exceptional Much more than acceptable.	Significantly above criteria for successful Surpassed expectations. Meets all major / essential / core criteria or acceptable equivalents and met three or more additional criteria.
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SCHEDULE "J"

Recirculated for reference of operating costs as requested at the January 7, 2020 Council meeting - please see highlighted area on page 7

Document No:
Meeting: Mar 12/19 Coun
Circulate To: Coun, BR, LD, HM
File: Recreation - Parks

M E M O R A N D U M

TO: **TOWN COUNCIL**

FROM: **KELLY CUNNINGHAM, RECREATION DIRECTOR**

PAUL BRACKEN, FACILITIES SUPERINTENDENT

DATE: **MARCH 7, 2019**

RE: **SPLASH PAD PROPOSAL: STAFF'S FEASIBILITY REPORT**

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1. FACTS

A community organized group called the "Lunenburg Community Development Group" (LCDG) is proposing a Community Splash Pad Park to be built in the Town of Lunenburg (Town). The group is proposing that the Splash Pad be built at the Town's 250th Anniversary Park where a playground structure currently exists. The proposal would remove the existing playground equipment prior to construction.

The LCDG is seeking funding from a variety of sources, including federal, provincial, and municipal governments, corporate sponsors, and grant applications.

A splash pad is a dynamic, zero-depth aquatic play area that combines flowing, misting, spraying and jetting. The jets and sprays offer choreographed movements and intensity of water spraying.

At the January 8, 2019 Council Meeting, the following motion of Council was approved:

Motion: moved by Deputy Mayor McGee, seconded by Councillor Carnevale that staff prepare a report regarding the splash pad proposal. Motion carried.

At the January 22, 2019 Council Meeting, a preliminary staff report was provided to Council. The staff team was to obtain more information and report further to Council.

Kelly Cunningham (Recreation Director), Paul Bracken (Facilities Superintendent) and Peter Baker (Public Works Superintendent) have met with members of the LCDG to gather further information. Staff have since done further research to assist in a preliminary feasibility study of the proposed elements for consideration.

Currently in the 2019/20 draft capital budget, there is $20,000 proposed for “Splash Pad (Detailed Design-Tender)”. The description for this work is as followed:

> “A splash pad is a dynamic, zero-depth aquatic play area (no accumulation of water) that combines flowing, misting, spraying and jetting. Splash pads have, in recent years, become an increasingly popular family recreation destination in towns and cities of all sizes. While not meant to be a replacement to outdoor pools, they offer a fun water experience, with little to no standing water and non-slip surfaces, they make for a safe environment to play in. They are scalable, allowing them to meet wide-ranging levels of service and budget. The jets and sprays offer an endless combination of choreographed movements and intensity of water spray.
>
> In collaboration with the community group, who has spear headed this project to date, staff are proposing a contractor be engaged to provide the technical assistance of detailed design work and preparation of a tender package. This will allow the group/Town to move forward with funding applications for the 2020/21 construction of this project.”

This first phase of the project would result in staff to work in partnership with a Consulting Engineer and Landscape Architect, which would be hired through tender. It is important to emphasize that much of the information provided in this report through the feasibility study was done preliminary by staff and would be further reviewed through the hiring of the Consultant. We have budged $20,000 for this process, which is based on 10% of the total project budget, this could be reduced through staff planning.

2. FEASBILITY STUDY CONDUCTED BY STAFF

Staff is very supportive of the splash pad proposal. The LCDG members have done extensive research in preparation of their January 8, 2019 presentation to Town Council (Schedule “A”).

The LCDG asked Council for:

- *Permission to move forward on a mutually agreeable tentative plan to build a splash pad park on Town of Lunenburg land.*
- *Ability for the Town of Lunenburg to accept the financial support this project will require.*
- *Ability for the Town to be able to facilitate the project with continued engagement from staff (i.e., Corporate Services, Recreation, Public Works, Water Utility, etc.).*

The LCDG stated their willingness to:

- *Obtain a designed and costed plan for a Splash Pad and Park.*
- *Obtain a significant portion of the funding.*

- *Continued facilitation of the splash pad development for the community.*

Location

i) Site selection – Staff's Evaluation

- 250th Anniversary Park: This location was determined as the best placement for the proposed splash pad based on staff's assessments. There is currently an existing playground and pad in the area; however, it was previously anticipated by staff to further look into options for updating the play structure. By replacing the existing structure, it is thought that there would be minimal additional investment to the pad itself.

  The 250th Anniversary Park is a beautiful location that overlooks the waterfront. It is accessible by the Front Harbour Trail, which would be the main entrance to the pad. There is minimal public motor vehicle traffic near this location, which reduces safety concern of children and youth near the road. Parents would be welcomed to watch children, either on the level of the splash pad or above on the hill to look down, to get a clear view of their children playing. The splash pad would also make a nice waterfront recreation tie in to the Broad Street boat launch.

  The "Public Washrooms" on 29 Bluenose Drive, Lunenburg, is approximately a 180m walk from the entry of the 250th Anniversary Park from the Front Harbour Trail. This can be used for washroom access and/or a change facility. There is, however, also the option to build a changing room facility on site, at an additional cost. The Lunenburg Community Centre/Arena parking lot would be encouraged as a location for free parking. It is approximately a 600m walk to the Front Harbour Trail entrance of the park from this parking lot. Additional parking could be found on Bluenose Drive, Linden Avenue, and Montague Street.

  The Lunenburg and District Fire Department's Fire Chief, Darren Romkey, was consulted by staff. Chief Romkey thought that the 250th Anniversary Park was a great location for a splash pad. He offered 2 or 3 parking spots near the park that would be used for handicapped parking, allowing the Splash pad to be accessible. The main concern for the Fire Department is that there is no sidewalk by the Fire Hall for public access to walk to the splash pad. Mr. Romkey would want it to be communicated that access to the pad is from the path on the Front Harbour Trail. Saturday night is known to be the busiest night for the Fire Hall; however, the splash pad would have restricted hours and should not conflict.

An advantage of the 250th Anniversary Park is the opportunity to develop the space into a multi-purpose park. It has been proposed to put the splash pad in the existing playground structure pad; however, other options can be explored. This could be to either put the splash pad on the above hill where the staging is currently sitting and refurbish the current playground, or put the splash pad on the current pad and add additional playground equipment in replace of the staging.

- Beside the Tennis Court (Victoria Road): There are a couple reasons why this location is not ideal. The area is very close to a busy road and would cause concern that children and youth would be running around, as it is a main area in the Town. In addition, the green space that is currently has been measured by staff and was determined to not be the right size for a splash pad.

- Inside the Lunenburg and District Swimming Pool: One of the main benefits of a splash pad is that it is a free and accessible recreation activity for residents and neighboring communities. Unfortunately, poverty rates and low-income families is a reality in all communities. A splash pad would provide equitable access to all families to stay cool on hot, humid summer days.

  The Lunenburg and District Swimming Pool is a wonderful organization that provides families the opportunity to go swimming throughout the summer. As with like facilities, the pool requires an entrance fee to go swimming. By putting the splash pad in the facility of the swimming pool, the Town would be reducing the accessibility for all families and restricting those who may not be able to afford the admission costs.

- Replacement of the old Lunenburg Academy Basketball courts (97 Kaulbach Street): There are a couple known challenges associated with this location. There is no main pipe line access causing challenges for the water and sewer hookup, and there could potentially be grading issues due to the sloped ground. Adding a splash pad at this location could be contingent to the Lot Development Plan for the Town.

Design/Engineering

i) Facility design
   - Funds approved in the 2019/20 capital budget would be used for design specifications and tender package procurement.

ii) Water access
   - A preliminary estimate has been made based on the information gathered from ABC Recreation. This company has a Peak Water Flow Rate of 76.5 gallons per minute (GPM). This assumes that all pad features are running

at once. To encourage more active play on the splash pad and reduce water consumption, the features will be sequenced such that only 50% of the features will run at once. This will reduce the operating flow rate to 38.3 GPM.

The splash pad is suggested by the LCDG to operate from 10:00am to 6:00pm daily. To estimate the daily flow rate, it is assumed that the park will not be 100% operational for 8 hours a day. The rates listed are based on an 80% daily usage factor for estimation purposes. The total daily water volume is projected to be 14,688 gallons.

The seasonal water quantity is calculated based on the splash pad being open and operational for 12 weeks (from the last week in June until the second week in September). With acknowledging that there may be poor weather days, we reduced the park to be open/used for 74 days. The seasonal water volume is estimated to be 1,086,912 gallon/year.

iii) Sewer access

- After speaking with a local installer of splash pads, it was recommended to route water from the splash pad out the storm drain. This is standard practice with other municipalities, such as Kentville, Berwick, and Shelburne. It is anticipated that the water coming from the splash pad would be similar to clean water runoff and would be much cleaner than what would typically flow through most storm drains. This water would go into the harbour. Other municipalities who have used this practice have not had any issues.

  If the storm drain is determined to be the best practice, staff would look further into receiving approval from the federal government to put this water into the harbour. Staff have spoken to the Small Craft Harbours who have said if the water is released into their area, a permit would be required but did not see it being an issue.

iv) Electrical access and requirements

- A preliminary estimate was looked at regarding the power supply needed. With the Town's current gravity fed water supply, it is predicted that the 250th Anniversary Park would only need low voltage power. This would power the actuators that operates the equipment, which is turning the water values on and off. Additional power needed would be for new lights that could be added to the 250th Anniversary Park. It is estimated that overall, the power needed per year would be less than a one family house.

v) Pump house

- This would be done with a non-intrusive above ground box embedded in the landscape.

Project Management

The current project leads include the Town's Recreation Director, Facilities Superintendent, and Public Works Superintendent. Staff have met with members of the LCDG regarding the project and to share information.

The project timeline estimated by staff is for a Consultant Engineer to be hired through tender process in the 2019/20 budget year, and for the construction of the splash pad to be conducted in the 2020/21 budget year.

3. FINANCIAL IMPACT

Capital

Currently in the 2019/20 draft capital budget, there is $20,000 proposed for "Splash Pad (Detailed Design-Tender)". As well, it is proposed for the 2020/21 capital budget to have $200,000 towards the splash pad implementation. LCDG is seeking Town approval to assume responsibility for the project by receiving donations and issuing charitable donation receipts, funding the balance of the project cost and assuming the project lead role.

If the splash pad proposal is approved by Council, this municipal project would be required to go to tender for competitive bids. An estimated quote originally provided by the LCDG was listed as $195,370.05. There are also additional aspects of the project construction that have yet to be fully determined such as geo-technical, tender specification preparation, sewer, water etc. services installation costs, etc. to arrive at a fuller budget estimate. The Consultant Engineer would assist with this process.

LCDG Projected Funding Receivable

The LCDG provided staff with the financial funding that they are hopeful to receive. The group has been mindful to not name specific sponsors to respect privacy and ensure commitment prior to listing the names. If the proposal is approved by Council to move forward with the splash pad project, the LCDG will be able to confirm sponsors and the amount they are willing to donate to the project.

Listed below is the group's anticipated funding receivables.

- Federal grant: Atlantic Canada Opportunities Agency (ACOA)
    - Up to 50% of the project
- Provincial grant: Recreation Facility Development through Communities, Culture and Heritage*****
    - Projects are eligible to apply for up to one-third (1/3) of the total capital cost of the project to a maximum of $150,000.00
- Accessibility grants
- Recreation development grants (Jumpstart and United Way of Lunenburg County)

- Private citizens group
    - Up to $50,000
- Community Health Board grants
    - $3,000-$6,000 (applying for two separate ones)
- 6+ Local corporate sponsors, as of now

*This is the same funding source that Town staff has been planning to apply for the Ice Resurfacer replacement at the Lunenburg War Memorial Arena, which is currently in the ten-year capital budget for 2020/21.

Operating Costs

The preliminary estimates that the splash pad would have as an annual operating cost is noted below. The Town's Recreation Department would be responsible for the weekly maintenance, operations, start up and shut down of the splash pad. The Public Works Department would be required with the construction of the project to provide water and sewer hookups

• Water (seasonally 1,086,912 gallon/year)	$4,900
• Power (approximately $100/month for four months)	$400
• Weekly checks (June, July, August and September)	$470*
○ Estimated one hour each at $31.00/hour	
• Start up: Spring (half day by two staff)	$250*
• Shut down: Fall (half day by two staff)	$250*
• Insurance	TBT
	$6,270 + Insurance

*Based on Public Work's charge out rates schedule.

4. OPTIONS

Option 1: Approval for the splash pad project to commence. A Consultant Engineer would be hired through the tender process to further look at the specifics required for a splash pad within the Town. The splash pad would be anticipated to be constructed in 2020/21. This could mean the deferral of the replacement of the Ice Resurfacer (89) if we wanted to utilize the same funding source for this purchase; however, staff will continue to actively seek other funding sources for the Ice Resurfacer.

Option 2: Post-pone the splash pad project to be included in the Town's ten-year Capital plan.

5. STRATEGIC PLAN RELEVANCE

Goal 3B: To facilitate and encourage healthy lifestyles.
Goal 5A: Making best use of Town-owned buildings and land.

Goal 5B: Continually and strategically maintaining and upgrading community infrastructure

6. **RECOMMENDATION**

It is recommended for Council's consideration of project options and further direction.

Acknowledged only by:

Bea Renton
Town Manager/Clerk

Excerpt from March 12, 2019 Minutes

LUNENBURG TOWN COUNCIL MEETING MINUTES

TUESDAY, MARCH 12, 2019 AT 5:15 P.M.

(LUNENBURG TOWN HALL)

PRESENT: Mayor Rachel Bailey
Deputy Mayor John McGee
Councillor Ronnie Bachman
Councillor Joseph Carnevale
Councillor Danny Croft
Councillor Peter Mosher
Councillor Matt Risser

ALSO PRESENT: Paul Bracken, Facilities Superintendent
Kelly Cunningham, Recreation Director
Lisa Dagley, Finance Director
Arthur MacDonald, Heritage Manager
Heather McCallum, Assistant Municipal Clerk
Kathleen Rafuse, Accountant
Bea Renton, CAO

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a. Public Works

i. Splash Pad project update

This item was moved up in the agenda due to the presence of members of the Lunenburg Development Community Group championing the Splash Pad in the audience.

The Recreation Director and Facilities Supervisor reviewed the report (Schedule "J").

The Finance Director noted that the $20,000 line item for engineering and design work in the 2019/20 budget will be approved when the full Capital budget is approved.

Motion: moved by Councillor Mosher, seconded by Deputy Mayor McGee that the splash pad project commence, contingent on community funding. A Consultant Engineer would be hired through the tender process to further look at the specifics required for a splash pad within the Town. The splash pad is anticipated to be constructed in 2020/21. Motion carried.

Schedule "I"

Document No: 7
Meeting: Jan 14/20 Council
Circulate: Council
File: Procedural Policies

M E M O R A N D U M

TO: **TOWN COUNCIL**

FROM: **BEA RENTON, CAO**

DATE: **JANUARY 2, 2020**

RE: **DRAFT MUNICIPAL COMPLAINTS PROCESS POLICY**

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1. FACTS

A draft Complaints Process Policy has been prepared as requested.

2. ISSUES AND OPTIONS ANALYSIS

Municipal Complaints Process Policy samples from Canada and the United States and legislative authority were researched in preparation of a draft Town Policy for Council consideration. The most relevant sample was found in the Nova Scotia Association of Municipal Administrators' Model Policy Manual (see: copy attached). It provides an overview of the Policy's legislative authority in the Municipal Government Act and general guidelines for adopting a formalized process for addressing public and internal complaints.

Staff adapted the AMA Model Policy for Council consideration. It reflects Council's adoption of a Code of Conduct and current privacy legislation provisions balanced with disclosure of public information interests as recommended by municipal solicitor, Peter Rogers, Q.C.

The Policy is intended to provide a process by which public complaints can be promptly and fairly addressed through (in)formal procedures with the objective of continuous municipal improvement.

If the draft Policy is acceptable, a Councillor could give notice of motion of its proposed adoption at this Council meeting and a motion to approve same made at the January 28, 2020 Council meeting. Alternatively, if Council wished to further review the draft Policy, it could remain on the Council agenda or be referred to the January 16, 2020 General Government Committee meeting agenda for report back to Council.

3. FINANCIAL IMPACT

If adopted, the Policy does not have any financial impact. Only if a complaint was received requiring external resources to investigate, e.g., legal counsel, mediation, costs could be incurred. Commonly though such Policies emphasize the importance of seeking "front line" or more informal resolution of complaints so that issues can efficiently addressed at the outset as opposed to a more prolonged and potentially costly informal process with the same outcome to achieve service and/or program improvements.

4. STRATEGIC PLAN RELEVANCE

The adoption of a Complaints Process Policy would achieve several core Town Strategic Plan Directions including:

1. "Promote a high quality of life for residents by:...C. Becoming a more welcoming community; and D. Engaging our citizens"; and
5. "Operate the Town efficiently and effectively by:…C. Developing and updating Town bylaws, policies, procedures and plans."

5. RECOMMENDATION AND DRAFT MOTION

It is recommended that Council approve the attached draft Complaints Process Policy by adopting the following motions.

(January 14, 2020) Deputy Mayor or Councillor _____ - Notice of motion is given of the proposed adoption of a Complaints Process Policy (Schedule "__").

(January 28, 2020) Motion: moved by Deputy Mayor or Councillor _____, seconded by Deputy Mayor or Councillor _____ that the Municipal Complaints Process Policy (Schedule "__") be adopted.

Attachments (2) - N.S. Association of Municipal Administrators model Complaints Handling Policy
- Draft Town of Lunenburg Complaints Process Policy

Chapter [26]
Complaints Handling Policy

Title

1. This policy may be referred to as the "Complaint Handling Policy"

Purpose

2. The purpose of this policy is to enable the **[Municipality]** to promptly and effectively address program and service delivery concerns raised by members of the public. The policy will assist the **[Municipality]** in providing excellent service to the public, and contribute to continuous improvement of operations. The **[Municipality]** strives to reduce customer dissatisfaction by:
    - providing a timely and accurate response to complaints; and
    - using complaints as an opportunity to improve program and service delivery issues.

3. This policy is not meant to address:
    (1) Complaints about non-municipal services;
    (2) Issues already addressed by legislation, or an existing **[Municipal]** bylaw, policy or procedure;
    (3) A decision of Council or a decision of a committee of Council.
    (4) A grievance covered by the **[Municipality]**'s collective agreement(s); or
    (5) internal employee complaints.

Interpretation

4. In this policy:
   (1) "Complainant" means the individual filing the complaint with the **[Municipality]**;
   (2) "Complaint" means an issue or concern raised with a municipal program, service, or operation which is not resolved at the time of the incident and for which the complainant submits their concerns to the **[Municipality]** in accordance with this policy;
   (3) "CAO" means Chief Administrative Officer of the **[Municipality]**.
   (4) "Council" means council of the **[Municipality];**
   (5) Designated Officer" means the **[position title of employee designated to address complaints];**
   (6) "Employee" means an employee of the **[Municipality]**;
   (7) "**[Mayor/Warden]**" means the **[Mayor/Warden]** of the **[Municipality];**
   (8) "Ombudsman" means the Nova Scotia Office of the Ombudsman.

Designated Officer

5. A Designated Officer may delegate the authority to investigate a complaint to another employee, where s/he deems appropriate.

6. A Designated Officer may not delegate the authority to investigate a complaint to an employee who is or may be named in the complaint.

7. If a complaint is made against the Designated Officer, the **[Mayor/Warden]** shall review the matter and may:
   (1) [**consult with the executive council];**
   (2) [Refer the matter to the CAO][1]
   (3) consult with council;
   (4) consult with legal counsel; or

[1] This option is only available where the municipality does not designate the CAO as the employee responsible for handling complaints.

(5) Refer the matter to the Ombudsman.

Frontline Resolution

8. It is the responsibility of the complainant to attempt to resolve concerns by dealing with the employee(s) directly involved with the issue where appropriate.

9. It is the responsibility of all employees to attempt to resolve issues or concerns before they become complaints, and identify opportunities to improve municipal services.

Filing a Complaint

10. Where frontline resolution cannot be achieved, complaints should be submitted to the Designated Officer and include:
    (1) The name, phone number, e-mail address, and mailing address of the individual submitting the complaint.
    (2) The nature of the complaint including the:
        (a) background leading to the issue(s);
        (b) date(s), time(s) and location(s) of the incident(s); and
        (c) name(s) of any employee(s) previously contacted regarding the issues(s); and
    (3) Any action(s) being requested of the **[Municipality]**.

11. Complaints may be submitted on the form provided in Schedule A.

Receipt and Acknowledgement

12. The Designated Officer shall acknowledge in writing that the complaint has been received within **[5 business days]** of receipt of the complaint.

Investigation

13. The Designated Officer shall review the issues identified by the complainant and in doing so may:
    (1) Review relevant municipal and provincial legislation;

(2) Review the **[municipality]**'s relevant policies and procedures;

(3) Review any existing file documents;

(4) Interview employees or members of the public involved in the issue;

(5) Identify actions that may be taken to address the complaint or improve municipal operations; or

(6) Take other actions the Designated Officer deems expedient to resolving the matter.

14. The Designated Officer shall maintain a file of the complaint in compliance with the **[Municipality]**'s records management policy.

Decision

15. Within **[30 calendar days]** of receipt of a complaint the Designated Officer shall provide a response in writing to the complainant. The response shall include:

(1) Whether the complaint was substantiated,

(2) If the complaint is not substantiated, the Designated Officer shall provide reason(s) for their decision.

(3) Any actions the **[Municipality]** has or will take as a result of the complaint.

16. If the Designated Officer is unable to provide a response within **[30 calendar days]**¸s/he shall notify the complainant of the delay and provide an estimate of when a response will be provided.

Model Complaints Handling Policy

Schedule A – [Municipality] Complaint Form

Your Name:_____

Phone number:
(h): _____
(w): _____
(c): _____

E-mail address:_____
Mailing Address:_____
_____
_____

What is your complaint? Please include relevant date(s), times(s), location, and background information, including municipal employees you have contacted regarding this matter. Additional space is available on the back of this form. Additional information such as relevant photographs can be attached to this form.

How could the situation be improved?

Additional information:

OFFICE USE ONLY	
Received/recorded by:	Date:
Forwarded to:	Date:
Acknowledgement Letter ☐ Sent Date: _____ Staff Name:_____	Additional correspondence ☐ Sent Date: _____ Staff Name:_____ Reason:_____
Action Taken:	
Final Response Letter ☐ Sent Date: _____ Staff Name:_____	

Model Complaints Handling Policy
Editor's Annotations

Relevant Legislation

Municipal Government Act, R.S.N.S. 1998, c. 18:

29 Where the council does not appoint a chief administrative officer, the council

(a) shall fulfil the responsibilities, and may exercise the powers, given to the chief administrative officer by this Act; and

(b) may delegate any of the responsibilities and powers of the chief administrative officer to an employee of the municipality.

31 (1) The chief administrative officer shall ...(e) carry out such additional duties and exercise such additional responsibilities as the council may, from time to time, direct.

22 (2) The council or any committee appointed by the council may meet in closed session to discuss matters relating to ... (c) personnel matters;

Important Notice

The reader is cautioned that editorial and drafting choices involve interpretation of the law. Municipal units should consult with their own legal advisors before relying upon, and applying to their own circumstances, the comments or drafts contained in this Manual.

Comments

- This model Policy is intended to be a guideline for drafting a formalized process for addressing complaints received from members of the public. There are distinct advantages for a municipality to set up a written process for dealing with complaints from the public. The municipality as well as the public will have a clear idea of who is responsible for dealing with complaints and how complaints are reviewed and resolved. In the event that the situation cannot be resolved, and the complaint is forwarded to the Office of the Ombudsman for consideration, or legal action is attempted, a clearly documented review can demonstrate the municipality carefully reviewed the issues and took reasonable steps to resolve the situation. The process also encourages careful review of a municipality's operations where problems have been identified and allows for the continuous improvement of municipal services. The adoption of complaint handling policies and

procedures in Nova Scotia Municipalities has resulted in a decrease in total volume of complaints received.

- The model policy does not supersede other legislation, policies, or procedures such as Part XX of the Municipal Government Act – Freedom of Information and Protection of Privacy, your municipality's records management policy, code of conduct, collective agreements, or situation specific policy and procedures involving complaints (e.g. policies and procedures for dangerous and unsightly premises complaints).

- The use of a Designated Officer assists in ensuring the consistent application of the policy and ensuring that the employee investigating the complaint is not directly involved with the issue. Assigning the complaints function to a single employee will also allow staff to provide council with regular information on the volume of complaints, the amount of complaints resolved, and the amount of outstanding complaints.

- If a complaint is received that requires attention from council, council may wish to meet in camera to discuss the item pursuant to section 22(2)(c) of the MGA to protect the confidentiality of the employee(s).

- See the User's Guide found at the beginning of this Manual regarding the appropriate insert to make where "[Municipality]" appears.

- The chapter # in the policy title bar should be replaced by each municipal unit with the chapter # it assigns to this Policy**.**

    - Below are some common references which may be useful for municipal staff to provide where a member of the public has a concern with a non-municipal service:
        - The Better Business Bureau: http://atlanticprovinces.bbb.org/
        - The Nova Scotia Human Rights Commission: http://humanrights.gov.ns.ca/
        - The Nova Scotia Office of the Ombudsman: http://gov.ns.ca/ombu/
        - Nova Scotia Government – General Enquiries: https://www.gov.ns.ca/agri/secure/response.shtml
        - Nova Scotia Power Incorporated: www.nspower.ca
        - The Nova Scotia Utility and Review Board: http://www.nsuarb.ca/
        - Office of the Police Complaints Commissioner (OPCC): http://www.gov.ns.ca/opcc/filingAComplaint.htm
        - Commission for Public Complaints against the RCMP: http://www.cpc-cpp.gc.ca/index-eng.aspx

- The reference material used in the drafting of this model policy includes:
    - The Scottish Public Services Ombudsman's *Guidance on a Model Complaint Handling Procedure (*http://www.spso.org.uk/files/webfm/Publications/CSA/nce-on-a-Model-Complaints-Handling-Procedure.pdf)
    - The Manitoba Office of the Ombudsman's *Handbook on Fairness for Manitoba Municipal Leaders (*http://www.ombudsman.mb.ca/pdf/Understanding%20Fairness%20Web%20Report.pdf)
    - The Town of Trenton's Enquiry/Complaint Report
    - Section 5.9 of the local government resource handbook – Dangerous and unsightly premises (http://www.gov.ns.ca/snsmr/muns/manuals/PDF/LGRH/LocalGovernmentResourceHandbook_5.9.pdf).

Draft
Council Jan 14/20

TOWN OF LUNENBURG PROCEDURAL POLICY # -
COMPLAINT PROCESS POLICY

PURPOSE

1. The purpose of this Policy is to enable the Town of Lunenburg ("Town") to promptly and effectively address complaints by members of the public about Town program and service delivery and other operational concerns raised by members of the public. The Policy will assist the Town in providing service to the public and contribute to continuous improvement of Town operations. The Town strives to address public concerns by:

   - providing a timely and accurate response to complaints; and
   - using complaints as an opportunity to improve program and service delivery issues.

2. This Policy is not meant to address:

   (1) Issues already covered by legislation, or an existing Town bylaw, Policy or procedure;
   (2) A decision of Council or a decision of a Committee of Council;
   (3) Complaints brought by Council members or staff against Council members or staff; or
   (4) A grievance covered by a Town collective agreement and/or Personnel Policy, except that complaints about staff or Council Members brought by members of the public which would also constitute a Code of Conduct complaint under applicable Policies or Personnel Policy of the Town should be acknowledged and the Complainant advised that the matter is being referred to Council in camera or to the Designated Officer as the case may be to be addressed under the applicable Code of Conduct policy in a manner respectful of any privacy interests of the Complainee and Complainant.

INTERPRETATION

3. In this Policy:
   (1) "Complainant" means the individual filing a complaint with the Town;
   (2) "Complainee" means any individual Council member or Employee identifiable by name, title or context whose conduct or whose act or omission is complained about in a complaint;
   (3) "Complaint" means an issue or concern raised with a municipal program, service, or operation which is not resolved at the time of the incident and for

which the complainant submits their concerns to the Town in accordance with this Policy;

(4) "CAO" means the Chief Administrative Officer of the Town;
(5) "Council" means the elected municipal Council of the Town;
(6) "Council Member" includes the Mayor and Councillors;
(7) "Councillor" means an elected Town Council member other than the Mayor;
(8) "Designated Officer" means the CAO, except when a complaint is filed against the CAO, in which case it means the Mayor; and except when the complaint is against a Council Member , in which case the matter shall be referred to Council in camera as set out herein;
(9) "Employee" means an employee of the Town, but includes for purposes of this Policy a volunteer Firefighter; and
(10) "Mayor" means the Mayor of the Town, or the Deputy Mayor in the event of absence or unavailability of the Mayor.

DESIGNATED OFFICER

4. The Designated Officer may delegate the authority to investigate a complaint to another Town employee or to a qualified external person, such as a lawyer or mediator.

5. If the Complainee is a Council Member, Council in camera may determine how it wishes to investigate or delegate the investigation of a complaint to a qualified external person, such as a lawyer or mediator.

6. A Designated Officer may not delegate the authority to investigate a complaint to a Complainant or Complainee, and neither the Complainant nor the Complainee shall participate as a voting Council member in any determination of a complaint before Council or Council in camera.

7. Complainees shall be promptly provided with a copy of a complaint, including a copy of a Complaint Form, made against them and given a reasonable opportunity to explain or respond to the complaint in writing and/or verbally. Where the Complainee is employed by the Town, the applicable collective agreement and/or personnel policy shall be followed before any discipline or sanction is considered if the complaint is substantiated.

8. All Complainees shall have their privacy interests respected and no public statement of disciplinary or other action shall be made, except after due consideration of those privacy interests, including, at the option of the Designated Officer or Council in camera, the obtaining of legal advice regarding such privacy interests. Normally disciplinary sanctions against employees will not be made public.

FRONT LINE RESOLUTION

9. It is the responsibility of the Complainant and Designated Officer to make reasonable front line efforts to resolve complaints informally, including, where appropriate, by preliminary dismissal of complaints not eligible to be pursued under this Policy or otherwise not warranting the process of a formal complaint.

10. The Designated Officer shall record efforts to reach front line resolution and may choose to write to the Complainant confirming that the matter is considered to be resolved or that a formal complaint will be accepted for handling under this Policy.

FILING A FORMAL COMPLAINT

11. Where front line resolution cannot be achieved, complaints should be submitted to the Designated Officer, on the Complaint Form attached in Schedule A, providing particulars of the Complaint. The Designated Officer may waive the use of a Complaint Form by the Complainant where the complaint was already presented in writing with sufficient particularity.

RECEIPT AND ACKNOWLEDGEMENT

12. The Designated Officer shall acknowledge in writing that the complaint has been received within seven business days of receipt of the complaint. The Designated Officer shall maintain a file of written complaints and documents relating to the complaint, in accordance with the Town's Record Management Policy.

INVESTIGATION

13. The Designated Officer shall review the issues identified by the Complainant and in doing so shall, as necessary having regard to the circumstances:

    (1) Attempt front line resolution where it has not already been attempted;
    (2) Review relevant Municipal and Provincial legislation;
    (3) Review the Town's relevant Policies, procedures and practices;
    (4) Review existing file documents relating to the matter;
    (5) Interview the Complainant, Complainee and other persons identified as relevant to the complaint;
    (6) Provide a copy of the written complaint to any person(s) complained against and ensure they have a reasonable opportunity to be heard regarding the complaint as described in section 7 herein;
    (7) If the complaint does not identify a particular Complainee and is of a general nature regarding the Town, elected officials and/or employees, the Designated Officer may conduct a general review of the complaint to determine what, if any, action needs to be taken to address the complaint;

(8) Identify and take actions that in the opinion of the Designated Officer should be taken to resolve or handle the complaint and improve municipal services as a result of matters raised by the complaint.

DECISION

14. Within thirty business days of receipt of a complaint the Designated Officer shall provide a response in writing to the Complainant and to the Complainee where a Complainee has been able to be identified. Subject to the due consideration of applicable privacy interests, the response may include:

    (1) Whether further time is needed to resolve or handle the complaint, and if so, why;
    (2) Whether the complaint was substantiated;
    (3) If the complaint is not substantiated, the reason(s) why it is not considered substantiated; and
    (4) Any processes or actions the Town has or will take as a result of the complaint including that the matter has been referred for disciplinary consideration to the CAO or to Council in camera, as the case may be.

15. For complaints which are substantiated, the Designated Officer shall attempt to identify and implement opportunities to improve municipal services.

16. Subject to the due consideration of privacy interests, a summary of the complaint and its disposition may be circulated to the relevant staff and Council where appropriate to effect general municipal service improvements.

17. No disciplinary or other retaliatory action shall be taken against Complainants for complaints made in good faith under this Policy.

Schedule A
Town of Lunenburg Complaint Form

Your Name: _____

Phone number:
(h): _____
(w): _____
(c): _____

E-mail address: _____
Mailing Address: _____
_____
_____

What is your complaint? Please include relevant dates, times, locations, and background information, including Town Council members and employees involved in this matter. Additional information such as relevant photographs can be attached to this form.

How could the situation be addressed or improved?

Additional information:

OFFICE USE ONLY	
Received/recorded by:	Date:
Forwarded to:	Date:
Acknowledgement Letter ☐ Sent Date:_____ Staff Name:_____	Additional correspondence ☐ Sent Date:_____ Staff Name:_____ Reason:_____
Action Taken:	
Final Response Letter ☐ Sent Date:_____ Staff Name:_____	

Please be aware that any communications made to the Town of Lunenburg will become records that are subject to the freedom of information and protection of privacy provisions contained in Part XX of the Municipal Government Act. Depending on the nature of the information and the subject matter, such communications may become part of the public record.

Schedule "J"

Kelly Jardine

From: dromkey [mailto:dromkey@eastlink.ca]
Sent: December 23, 2019 10:18 AM
To: Bea Renton <brenton@explorelunenburg.ca>
Cc: Lisa Dagley <LDagley@explorelunenburg.ca>; Katie MacMillan <KMacMillan@explorelunenburg.ca>
Subject: Re: FW: LDFD - Re: Surplus PPE Turn Out Gear

With the replacement of our fire fighter turn out gear for our front line interior attack fire fighters, as well as some other fire fighters requiring gear, we now have a surplus of gear.

Our plan is to keep the sets that are still a couple years within the NFPA expiry date of 10 years as spares to use if the fire fighters gear is out being cleaned.

We are also keeping a few sets of gear that is still in good condition but has passed the expiry date. This we will used to outfit new members until they are trained for interior attack, than get them new gear.

There are fire departments in our county, as well as the province and beyond that cannot afford new gear.

Since our gear does not meet the NFPA expury date, i feel it isnt worth much.

I would like to donate this gear to these departments as an act of good faith and cooperation .

If approved, I think it should be offered to any Lunenburg County department first, departments within Nova Scotia second, and out of province third.

I feel it would be the responsibility of the department receiving the gear to either come to our station to pick it up, or cover any costs to ship it to them.

I am willing to work with the Station Superintendent on this project.

If you have any questions please feel free to contact me.

(Additional information - breakdown of Turn Out Gear that we have that is now surplus:

Pre 2011 Turnout Gear (Out in the Storage Building)
30 Jackets
31 Pants
11 Pairs of Boots
5 Captain Helmets
14 Firefighter Helmets

2011 Turnout Gear (In Water Rescue Room)
9 Jackets
6 Pants
10 Pairs of Boots

The average price for one set of surplus Morning Pride turnout gear is $74.11 CAD.

This list does not include the sets of 2011 Turnout Gear, Boots and Helmets that are allocated as spare sets for new members and replacement Turnout Gear when a member's current set of Turnout Gear is out for cleaning and/or repair.)

Darren

Schedule "K"

THE MUNICIPALITY OF BARRINGTON | An ocean of opportunity

2447 Highway 3, P.O. Box 100, Barrington, Nova Scotia B0W 1E0

December 11, 2019

TO ALL MUNICIPAL UNITS IN NOVA SCOTIA:

The Municipality of Barrington has made an application to the Department of Education and Early Childhood Development to be able to provide a personal development credit to students who join a volunteer fire department and complete the required training.

Joining a volunteer fire department helps students with interpersonal and communication skills as well as problem solving while serving their community.

Along with the personal development of students this program also has the potential to increase fire department memberships. The age of firefighters is increasing and departments are finding it difficult to attract younger members. It is key to attract people into the fire department while they are young so they can form a lifelong connection with the service.

The Barrington Municipal Council would like to request your support for this application, in the form of a letter or otherwise, to allow schools in Nova Scotia to offer a Personal Development Credit for students that join a fire department and undergo the required training.

Yours truly,

Chris Frotten,
Chief Administrative Officer

LOBSTER CAPITAL OF CANADA

Phone: 902-637-2015 info@barringtonmunicipality.com Fax: 902-637-2075

Schedule "L"

Ann Covey

Subject: 8 Coun Jan 20 20 Region 6 Solid Waste Resource Management Committee Draft Budget 2020/21 - motion to approve;
Attachments: Budget letter 20-21 Lun.pdf

From: Valda Walsh [mailto:Valda.Walsh@Region6swm.ca]
Sent: December-16-19 12:19 PM
To: Bea Renton <brenton@explorelunenburg.ca>
Cc: Rachel Bailey <RBailey@explorelunenburg.ca>; 'Diana Gibson' <dgibson@westhants.ca>
Subject: Region 6 Budget 2020-21

Good afternoon Bea,

Attached please find our official correspondence requesting your council to review and support the Region 6 Solid Waste Management Budget.

If you have any questions – please feel free to email or call me.
To assist with any of your questions, I am also copying Region 6s accountant, Diana Gibson, in this correspondence.

Valda Walsh BSc TME EP
Regional Coordinator
Region 6 Solid Waste Management
PO Box 639 | 45 School Street Rm 304
Mahone Bay, NS B0J 2E0
P: 902-624-1339 M:902-350-0333
Download R6RECYCLES and *never miss a collection again!*
Get it on Google Play or
Download in the App store

Region 6 Solid Waste-Resource Management

PO Box 639 / 45 School St , Suite 304
Mahone Bay, NS B0J 2E0

Phone: 902-624-1339
E-mail: Valda.Walsh@Region6SWM.ca

Beatrice Renton
Town of Lunenburg
PO Box 129
119 Cumberland St
Lunenburg, NS B0J 2C0

December 16, 2019

RE: Budget Approval 2020-21

Dear Ms. Renton,

On Friday, November 29, 2019, the Region 6 Inter-Municipal Committee met regarding the budget for the upcoming fiscal April 1, 2020 – March 31, 2021.

The following motion was passed:

MOTION: to recommend approval of the 2020-21 Region 6 Inter-Municipal Committee Budget in the amount of $833,272 to member councils as presented. **M/C**

Pursuant to FINANCES of the Region 6 Inter-Municipal Agreement; items 34 – 39

"34. The proposed Committee budget shall be submitted to the Councils of each of the Parties prior to 4:30 p.m. on December 31st of each year.

35. The Councils of each of the Parties shall approve said budget, or refuse to do so, by 4:30 p.m. on March 14th of the year to which said budget applies.

36. Should the Council of any of the Parties fail to approve or refuse to approve the proposed Committee budget and so notify in writing the Committee by the stated deadline, then the said budget is deemed to have been approved by that Council.

37. The proposed Committee budget shall be binding on all of the Parties if approved by the Councils of 75% or more of the Parties, so long as the Parties whose Councils have approved represent a minimum of 50% of the total population represented by the Parties to this agreement – said figures to be taken from the most recent available Census of Canada statistics.

38. In the event that motions of refusal to approve result in a proposed Committee budget not receiving approval of the necessary majority of Councils, the Committee shall revise the proposed budget taking into account any comments that may have been provided and submit a revised budget to the Councils of the Parties.

39. Should the Council of any of the Parties fail to approve or refuse to approve a revised proposed Committee budget within 45 days after receipt of same then the said budget is deemed to have been approved by that Council."

Respecting the enclosed budget, please review with your council and respond to Region 6 before 4:30 pm, March 14, 2020 on your approval or refusal.

Should you have any questions on either document please feel free to contact myself at 902-624-1339 or Chair, Michael Ernst at 902-624-8864.

If you require my attendance at the council meeting when the budget is up for discussion, feel free to contact me by phone or email.

Regards,

Valda Walsh BSc TME EP
Regional Coordinator

Encl.

Region 6 Solid Waste Management

INCOME	2019-20 Projection	2019-20 Budget	2020-21 Estimates
Contracts/Service Agreements			
Education Contract	70,163	64,261	70,163
Coordinator Agreement	43,286	42,028	43,286
Enforcement Contract	89,425	89,519	89,425
Services	3,000	3,000	3,000
Sub-total	$ 205,873	$ 198,808	$ 205,873
Stewardship/Incentives			
Dairy Stewardship	94,060	87,000	87,000
Diversion [1]	365,200	365,200	365,200
Municipal Approved Programs	80,500	80,500	80,500
Interest		0	
Sub-total	$ 539,760	$ 532,700	$ 532,700
Municipal Contribution			
Municipal Billing [2]	88,510	88,510	94,699
Inter-Municipal Program (*transfer*) [3]	9,000	9,000	
Sub-total	$97,510	$97,510	$94,699
TOTAL	**$ 843,143**	**$ 829,018**	**$ 833,272**

Region 6 Solid Waste Management

EXPENSES	2019-20 Projection	2019-20 Budget	2020-21 Estimates
OPERATING EXPENSE			
Coordinator Salary	66,130	65,996	67,448
Coordinator Benefits	10,255	11,648	10,334
Travel (Coordinator)	5,500	6,500	5,500
Training and conference	1,600	2,040	2,040
Office Rental	8,885	8,400	8,760
Cleaning	780	780	780
Cell phones	1,100	1,100	1,100
Phone/fax	1,400	2,200	1,500
Office supplies and services	3,500	3,000	3,500
Computer/materials	1,500	1,500	1,500
Insurance	3,100	3,100	3,100
Administration	9,390	9,390	9,390
Legal	1,000	1,000	1,000
Auditor	7,822	7,822	8,240
Sub-total	$ 121,962	$ 124,476	$ 124,192
EDUCATION			
Education salary	51,158	51,158	52,284
Educator Benefits	7,897	8,464	7,971
Travel (education)	10,500	9,500	10,500
Signs/web/advertising	1,000	1,000	
Environment Week	-	-	
Compost Awareness Week	1,200	1,200	
Waste Reduction Week	-	-	
Public bins maintenance	1,200	1,200	
Program materials [4]	800	800	4,200
Inter-Municipal program [3]	10,100	9,000	12,000
Sub-total	$ 83,855	$ 82,322	$ 86,955
PAYMENTS TO UNITS			
Enforcement Contract	89,425	89,519	89,425
Dairy Stewardship	94,060	87,000	87,000
Diversion [1]	365,200	365,200	365,200
Municipal Approved Programs	80,500	80,500	80,500
Sub-total	$ 629,185	$ 622,220	$ 622,125
TOTAL	**$ 835,002**	**$ 829,018**	**$ 833,272**
Revenue/Expenditure	$ 8,141	$ 0	$ 0

Region 6 Solid Waste Management

Notes to **BUDGET:**

1. Diversion Credits - In June 2018, Divert NS reported a three year 'Diversion Credit Smoothing' formula. This means $4.4 M will be the total amount used over the next 3 years. Region 6 averages 8.3% of diversion credit pot so $365,200 is used for budget.

2. Municipal Billing (details below) - this line pays for the operations that are not covered through grant and contracted services. $94,699 estimate will be offset by $14,859 surplus made up from the $3,507 as reported in the 2018-19 audited financial statements plus the cost of the R6RECYCLES yet to be transferred from our future projects fund for 11,352.
Actual to be billed to municipal members will be **$79,840**

3. Inter-Municipal Program (transfer) – April 1, 2018 Region 6 engaged ReCollect to build an electronic sorting app. The cost for this app was $9,000. Region 6 passed a motion on September 14, 2018 to pay for the app at $9,000 in 2019-20. There was also a cost of promo (pens). This amount is slated here in Inter-Municipal program but will have to have an operations account created going forward.

4. Program materials - it is no longer a requirement to track individual event costs. All event line items (Environment Week, Waste Reduction Week, etc) are now collapsed into one line 'Program Materials'.

TABLE 1: **Municipal billing:** ***(pending budget approval)***

Municipal area serviced:	*Pop'n*	*% of Region*	*2020-21 Estimate*
Shelburne Shared Services	6,562	7.25%	$ 5,791.69
Town of Bridgewater	8,532	9.43%	$ 7,530.43
Town of Mahone Bay	1,036	1.15%	$ 914.38
Municipality of Lunenburg	24,863	27.49%	$ 21,944.33
Municipality of Barrington	6,646	7.35%	$ 5,865.82
Town of Clark's Harbour	758	0.84%	$ 669.02
Municipality of Chester	10,432	11.53%	$ 9,207.39
Town of Lunenburg	2,263	2.50%	$ 1,997.35
Municipality of West Hants	15,368	16.99%	$ 13,563.95
Region of Queens Municipality	10,351	11.44%	$ 9,135.89
Town of Windsor	3,648	4.03%	$ 3,219.76
Total	**90,459**	**100.00%**	**$ 79,840.00**

Schedule "M"

Document No:
Meeting: Jan. 14, 2020 Council
Circulate: Council, LD, PB, IT SE, JL
File: Wastewater Treatment

M E M O R A N D U M

TO: **TOWN COUNCIL**

FROM: **IAN TILLARD, ENGINEERING CONSULTANT AND LISA DAGLEY, FINANCE DIRECTOR**

DATE: **JANUARY 8, 2020**

RE: **ADDITIONAL PUMP STATION CAPITAL UPGRADE REQUIREMENT FOR FISCAL 2019/20**

1. FACTS

At the December 10, 2019 Council meeting the following motion was approved:

> *Motion: moved and seconded the approval of the following wastewater pump stations expenditures:*
> *a. $34,000 including net HST in the 2019/20 budget year for repairs to pumps in 6 lift stations, to be funded from Sewer Reserves.*
> *b. Pre-approve in the 2020/21 budget year the following amounts:*
> *i. $34,000 including net HST for pump repairs not addressed in 6 lift stations, to be funded from Gas Tax;*
> *ii. $21,000 including net HST for repairs to the pumps in the 4 un-assessed lift stations, to be funded from Gas Tax; and*
> *iii. $4,200 including net HST for routine assessment and maintenance by the pump manufacturer's representative as an annual allowance. This operating expense will be funded from Sewer Rates beginning in 2020/21.*
> *c. Pre-approve in the 2021/22 budget year the following amount:*
> *i. $45,000 including net HST for the purchase of 5 rotating assembly spares, one for each pump type, to be funded from Gas Tax. (Schedule "I"). Motion carried.*

Since then the Back Harbour Pump station, Pump #2, experienced a failure on or about the 20th of December. Pump #1 was due to be repaired/upgraded as per the December 10th Council motion and the parts had been ordered. There were attempts by PW staff to get Pump #2 operational, which were temporarily successful, but ultimately Pump #2 did fail. In the meantime the supplier was contacted to expedite the parts for Pump #1, which they did do. Pump #1 was repaired with the new parts and restarted on January 6th, after the lift station was vacuum truck cleaned of a blockage.

As a result of the failure, Pump #2 was opened up and it was determined that the repairs that are required are more extensive than originally anticipated.

As an FYI, each station has two pumps. Under normal flow, one pump is needed and the two pumps are duty cycled. Under heavy load (ie rain storm conditions) the two pumps are needed.

There are a number of recommendations from the December 10th motion that are still valid. This work reflects the more severe deterioration found as well as the acceleration of some of the work from next year to this year.

2. ISSUES AND OPTIONS ANALYSIS

a. It is apparent that the lift station pumps may be in a worse condition than originally thought during the inspections earlier in the fall. As the consequence of a complete lift station pump failure is quite severe, this situation cannot be tolerated so the repair program needs to be accelerated. As a result the 2019/20 Lift Station Pump repairs budget needs to be increased by $21,000 including net HST.

b. As there is more work required that originally estimated and as some of the repair work needs to be accelerated from 2020/21 into 2019/20, additional funding will be required for fiscal 2019/20.

c. Given the uncertain nature of the work estimates, which can only be confirmed once the pumps are opened up, the budget for repair work for 2020/21 remain the same as previously approved, even though some of this work will be brought forward to this year.

d. The additional work scope for this year to ensure that the major pump stations are up to standard:

    a. Brook Street. Re-build the pump assembly for the second pump
    b. Back Harbour. New volute and re-build the pump assembly for the second pump
    c. Bluenose Drive. New volute and new motor for the second pump.
    d. Tannery Road. Replace malfunctioning sensor.

e. As a part of the approved expenditures for next year, once the pump stations are updated to acceptable conditions, there will be a preventive maintenance program put in place that will be a combination of PW inspections and maintenance as well as manufacturer' rep inspections and maintenance.

3. FINANCIAL IMPACT

As the Town was unsuccessful in our ICIP Funding application for the Additional UV Bank at the WWTP we are able to redirect the Sewer Reserves ($67,500) that were to fund the Town's portion of the UV Bank project to the Pump Station Capital Repairs. As $34,000 was redirected as per the December 10th motion, there remains a balance of $33,500.

It is recommended that the additional $21,000 including net HST of Lift Station pump repairs be funded from sewer reserves.

4. STRATEGIC PLAN RELEVANCE

5) Operate the Town efficiently and effectively by:
A. Making best use of Town-owned buildings and land.
B. Continually and strategically maintaining and upgrading community infrastructure

5. RECOMMENDATION AND DRAFT MOTION

It is recommended that Council adopt the following draft motion:

Draft Motion
Approval of an increase of $21,000 including net HST, to the 2019/20 repairs to pumps in lift stations capital budget, for a total budget of $55,000 including net HST in fiscal 2019/20 and that the funding for the entire capital project will be from Sewer Reserves.

Acknowledged only by:

Bea Renton
CAO

Schedule "N"

Circulated: _____

Document No: 7
Meeting: Council Jan 14, 2020
Circulate To: Council, BR, JL, JM, PB
File: Water/Wastewater - General

M E M O R A N D U M

TO: **TOWN COUNCIL**

FROM: **PETER BAKER, PUBLIC WORKS SUPERINTENDENT, JOHN LOHNES, TAYLOR ROMBAUT AND JOHN MADER, WATER RESOURCE OPERATORS**

DATE: **DECEMBER 26, 2019**

RE: **NOVEMBER 2019 WATER AND WASTEWATER QUALITY TEST RESULTS**

1. FACTS

The Nova Scotia Environment "Approval" documents to operate both for the Water Treatment Plant (Class II water treatment facility) and the Wastewater Treatment Plant (Class II wastewater treatment facility) require that certain tests be carried out to verify the quality of treated water and wastewater at the respective plants. There are also Federal testing standards. Routine testing is conducted both in Town labs at each plant and independently certified labs to determine compliance levels with both the Provincial and Federal standards. If any test result exceeds the standards then explanations are provided. This report provides a monthly summary of these results.

At the end of each year an annual report is also prepared for both treatment plants and filed with the Provincial and Federal governments.

2. ISSUES AND OPTIONS

Wastewater Treatment Plant

The Provincial Approval to operate requires that treated wastewater be tested a minimum of five times per month (once per week) for:

- biochemical oxygen demand (BOD maximum 20 mg/L);
- suspended solids (SS maximum 20 mg/L); and
- fecal coliform (maximum 1000 counts/100 mls).

pH (maximum 6.5 – 9) is tested daily (five times per week).
Disinfection is required to be continuous with the use of UV lights.

The Approval document further states that the facility is considered to be “in compliance with effluent limitations if 80% of the sample test results, at the frequency and number specified…meet the specified limit(s)...No single test result can be greater than two times the limits”.

The Town is also required to comply with the Federal Environment Canada Wastewater Systems Effluent Regulations. We test treated water from the Wastewater Treatment Plant for Carbonaceous Biochemical Oxygen Demand (CBOD maximum 25 mg/L), Total Suspended Solids (TSS maximum 25 mg/L), un-ionized ammonia (maximum 1.25 mg/L) and pH (maximum 5.9-9.5) every two weeks. Acute lethality tests are conducted quarterly and in this test rainbow trout are used to determine if they can survive in wastewater effluent over a 96 hour period.

Results

All November test results met Provincial standards with the exception of those noted in the following table.

Parameter Tested (# of test)	Maximum Limit	Exceeded Maximum Limit
BOD (5)	20 mg/L	None
SS (5)	20 mg/L	None
Fecal Coliform (4)	1,000 counts/100 mls	2,500 and 3,100 counts/100 mls
pH (21)	6.5 – 9.0	None

All November test results met Federal standards. No rainbow trout died in the acute lethality test performed on September 30, 2019. Acute lethality tests are performed quarterly and this is the most current test result.

The reason for one of the high Fecal Coliform test results noted in the table above is believed to be poor influent quality including high salinity, possibly due to road salt and/or higher than normal tides. The other high Fecal Coliform test result was because the testing lab experienced a power outage after receiving our sample and the sample could not be kept cool as required in the testing procedure.

We have attached a table which provides a summary of the average monthly daily flow (US gallons per day) of wastewater which has been treated from 2009 to date.

Water Treatment Plant

The Provincial Approval document requires weekly total coliform and E. coli bacteria tests for water entering the distribution system and various water distribution system sample points. In addition, aluminum is tested monthly. Quarterly we test for: parameters for corrosion control; lead; trihalomethanes; bromodichloromethane; and haloacetic acids. Annually, we test raw water and treated water for compliance with the

Federal Guidelines for Monitoring Public Drinking Water Supplies and a fuller assessment every five years. The Province can also request viruses, Giardia and Cryptosporidium testing at any time.

Results

All November and quarterly test results were in compliance with the Provincial Approval requirements.

Additional information is attached with the line loss since January 2014 up to date and the location and cause of water leaks within the distribution system since January 2015 up to date. The water line loss was higher than normal during the July to September period for which an explanation was provided in the October report.

3. FINANCIAL IMPACT

Funds are included in the Water Treatment Plant and Wastewater Treatment Plant operating budgets to pay for these water quality tests.

4. STRATEGIC PLAN RELEVANCE

Strategic Planning Goal #3. A. (a.) of the Town's Strategic Plan is to "Champion opportunities for our community's health and well-being by ... Protecting our natural environment ... Continue to provide solid waste management, sewage treatment and high quality water to all of our residents".

5. RECOMMENDATION

This report is provided for Town Council's information.

Acknowledged only by:

Bea Renton, CAO

Encls. 3

Waste Water Treatment Plant

Average Monthly Daily Flows (USGPD)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
January	767,857	840,324	990,669	798,500	821,333	1,228,376	797,289	963,316	906,324	636,808	681,049
February	592,263	978,915	822,827	902,320	632,291	1,171,563	804,590	969,710	974,459	693,503	689,140
March	726,059	915,953	916,966	1,083,288	949,220	965,278	1,043,356	965,597	998,449	802,902	914,341
April	1,107,593	1,113,196	736,749	933,020	1,602,759	965,278	764,799	632,395	985,934	569,976	1,070,959
May	974,489	792,349	855,584	728,810	485,225	573,635	887,125	654,174	1,157,628	477,666	702,156
June	914,011	678,713	884,103	626,112	991,863	639,974	989,508	656,993	840,575	559,765	678,842
July	601,530	643,826	580,779	615,238	628,417	526,474	834,703	605,139	629,526	686,258	547,631
August	577,504	504,183	617,797	508,015	627,702	509,224	601,246	559,871	834,769	582,341	577,263
September	273,878	520,990	601,488	524,950	462,222	550,710	662,096	996,792	588,082	571,014	502,385
October	649,833	884,682	491,703	773,368	728,372	851,612	716,092	714,657	1,188,019	578,492	944,224
November	942,787	1,067,517	554,340	735,231	625,240	1,053,808	889,923	774,717	1,028,785	948,721	636,926
December		770, 823	939,003	930,390	831,210	1,207,248	1,128,674	1,117,587	1,050,063	1,109,152	1,006,181
Average Daily Volume/Year USG		745,054	749,334	763,270	782,155	853,598	843,283	800,912	931,884	684,717	745,925
Days per year		365	365	366	365	365	365	366	365	365	365
Total Yearly Volume USG		271,944,679	273,506,897	279,356,880	285,486,407	311,563,392	307,798,420	293,133,914	340,137,812	249,921,529	272,262,573
Year to Year Increase (Decrease) USG		-1,562,218	-5,849,983	-6,129,528	-26,076,984	3,764,972	14,664,506	-47,003,898	90,216,284	-22,341,045	

*** Due to power outages these volumes may not be completely accurate**

Town of Lunenburg Water Use

2014				
	Pumped	**Sold ***	**Unaccounted Water Use/Loss**	**Percent**
January to March	41,343,988	33,477,361	7,866,627	19.03%
April to June	41,683,941	34,045,724	7,638,217	18.32%
July to September	46,966,995	35,008,429	11,958,566	25.46%
October to December	38,523,608	33,039,285	5,484,323	14.24%
2015				
January to March	38,685,055	31,474,195	7,210,860	18.64%
April to June	41,053,551	33,846,179	7,207,372	17.56%
July to September	44,926,119	33,983,269	10,942,850	24.36%
October to December	38,532,914	35,139,044	3,393,871	8.81%
2016				
January to March	39,065,596	32,368,168	6,697,428	17.14%
April to June	38,905,020	34,990,883	3,914,137	10.06%
July to September	50,366,140	39,678,233	10,687,907	21.22%
October to December	40,464,380	37,443,578	3,020,802	7.47%
2017				
January to March	37,574,680	33,531,323	4,043,357	10.76%
April to June	39,237,440	36,096,612	3,140,828	8.00%
July to September	48,072,704	42,657,360	5,415,344	11.26%
October to December	40,528,840	35,983,255	4,545,585	11.22%

2018				
January to March	38,260,460	33,880,209	4,380,251	11.45%
April to June	39,117,100	33,951,871	5,165,229	13.20%
July to September	45,083,423	38,246,005	6,837,418	15.17%
October to December	37,931,817	33,208,199	4,723,618	12.45%

2019				
January to March	38,188,700	32,842,069	5,346,631	14.00%
April to June	41,667,340	34,992,919	6,674,421	16.02%
July to September	55,870,980	38,731,499	17,139,481	30.68%
October to December				

*Based on an average of 150/gallons/day residential use. This typically increases during warm month periods.

Water Leaks in Distribution System

2015				
Month	**Date**	**Street**	**Address or Block**	**Problem or Cause**
January	12	Victoria Road	Civic 80	3/4" water service with pin holes
January	22	Kempt Street	Between Townsend and Cumberland	6" valve bonnet broke
January	26	Lincoln Street	Civic 187	3/4" water service brass connection
January	26	Falkland Street	Civic 71	6" valve bonnet broke
February	11	Blockhouse Hill Road	Between Civic 11 and Civic 24	6" watermain cracked
February	18	High Street	Civic 24 (Hospital)	6" sprinkler service leaking
February	20	McDonald Street	Between Brook and Green	4" watermain cracked
April	15	Victoria Road	Civic 167	8" watermain long split
May	1	Lorne Street	Civic 20	3/4" water service swedge curb stop
June	8	Pelham Street	Civic 178	3/4" water service brass connection
November	24	McDonald Street	Between Brook and Green	4" watermain cracked
December	3	Kaulback Street	Between Kissing Bridge Road and Kinley Drive	8" watermain cracked
2016				
Month	**Date**	**Street**	**Address or Block**	**Problem or Cause**
January	19	Falkland Street	Civic 71	6" sprinkler service cracked
February	18	Archibald Street	Intersection of Green Street	8" X 6" reducer loose fitting
February	25	Centennial	Intersection of Victoria Road	8" X 8" loose fitting (elbow)
March	11	Kaulback Street	Between Kissing Bridge Road and Kinley Drive	8" watermain cracked
March	29	McDonald Street	Between Brook and Green	4" watermain cracked
April	15	Falkland Street	Civic 32	3/4" water service brass connection
July	6	Mason's Beach Road	Between Civic 101 and 142	2" leak watermain
July	25	Bayview Drive	Behind 311 Pelham Street	1 1/2" leak water service
October	21	Dufferin Street	157 Dufferin Street	3/4 " leak water service
October	31	Pelham Street	106 Pelham Street	3/4 " leak water service
December	1	Blue Rocks Road	Civic 359	1" leak water service
2017				
Month	**Date**	**Street**	**Address or Block**	**Problem or Cause**
February	4	Montague	Civic 208	6" watermain cracked
September	7	MacDonald	Civic 59	3/4" Brass service leaking
September	21	Motague	Civic 257	3/4 Brass service leaking
2018				
Month	**Date**	**Street**	**Address or Block**	**Problem or Cause**
February	6	Brook	Civic 108	6" watermain cracked
February	15	Green	Civic 23	6" watermain cracked
March	19	Victoria Road	Civic 79	8" watermain cracked
May	15	Bayview Drive	Behind 305 Pelham	2" plastic line fitting
July	2	Victoria Road	Between 80 and 58	1" service holes in pipe
October	4	Dufferin Street	Civic 121	3/4 " leak water service
November	4	Young Street	End of Young Street in Park	12" AC water line coupling failed
2019				
Month	**Date**	**Street**	**Address or Block**	**Problem or Cause**
May	2	Kempt Street & Lincoln	Civic 24 Kempt Street	6" watermain cracked
June	10	Harbour View Drive	Civic 232	3/4 " leak water service
June	18	Bluenose Drive	Civic 179	12" watermain coupling failed
October	2	Blue Rocks Road	Civic 359	3/4" service hole in pipe
October	21	MacDonald Street	Civic 59	4" cast iron watermain cracked